

# Trinity College Chapel, Cambridge

An Archaeological Investigation



Richard Newman

CAMBRIDGE ARCHAEOLOGICAL UNIT  
UNIVERSITY OF CAMBRIDGE



# **TRINITY COLLEGE CHAPEL, CAMBRIDGE**

## **An Archaeological Investigation**

**Richard Newman**

With contributions by:  
Martin Allen, Craig Cessford and Mark Samuel

© **CAMBRIDGE ARCHAEOLOGICAL UNIT**  
University of Cambridge  
January 2012  
Report No. 1058  
Event Number: **ECB 3581**

## Summary

*An archaeological investigation was undertaken within the quire of Trinity College chapel, Cambridge, in advance of the introduction of a new underfloor heating system. Although restricted in depth, with the result that no pre-16<sup>th</sup> century deposits were investigated, a number of results pertaining to the original layout of the chapel were obtained. Firstly, it was determined that changes to the initial design of the structure that were undertaken in c. 1560 had effectively doubled the size of the quire. Most probably associated with this period were two substantial foundations that appear to represent the initial, abandoned location of the choir screen that separates the ante-chapel from the quire. Remnants of the chapel's original tiled floor surface were also encountered, along with a fragment of the initial 16<sup>th</sup> century stall foundations. Further to the east, the footings of the 17<sup>th</sup> century reredos wall were also identified. In addition, a minimum of three burials were present within the investigated area, one of which contained an encoffined inhumation dating to c. 1660-80. These results allow the original 16<sup>th</sup> century layout of the quire to be reconstructed.*

## Introduction

An archaeological investigation was undertaken by the Cambridge Archaeological Unit (CAU) within the quire of Trinity College chapel, Cambridge, between the 12<sup>th</sup> of April and the 3<sup>rd</sup> of May 2011. The site, which is centred on TL 4477 5869, is situated in the historic core of the town, close by the river Cam (see Figure 1). The chapel itself is a Grade I listed structure. Prior to the commencement of the investigation, an irregular area of floor (measuring 203m<sup>2</sup>) had been removed by the principal contractor. The chapel's remaining fixtures and fittings – including the altar, organ screen and stalls – were also suitably screened off and protected. The project followed the specification issued by the CAU (Dickens 2011) and was monitored by Dan McConnell, Development Control Archaeologist at Cambridgeshire Historic Environment Team (CHET). The work was commissioned by Trinity College, Cambridge, in advance of the installation of a new underfloor heating system.

### *Landscape and Topography*

Trinity College chapel is situated in the northeastern corner of Great Court, the largest of the three principal courts of the college. Geologically, the chapel 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 at the college gateway to 4.45m OD close to the river. Prior to the commencement of the investigation, the floor of the quire lay at 9.33m OD. This is slightly higher than the present external ground level, which lies at *c.* 9.2m OD close to Trinity Street.

### *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. 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 1:100 or 1:20, whilst 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 TCC 11.

### *Historical and Archaeological Background*

The historical and archaeological background of the site has been covered in depth in a recent desktop assessment (Appleby 2010), whilst the wider background of Cambridge is reviewed in a number of 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.

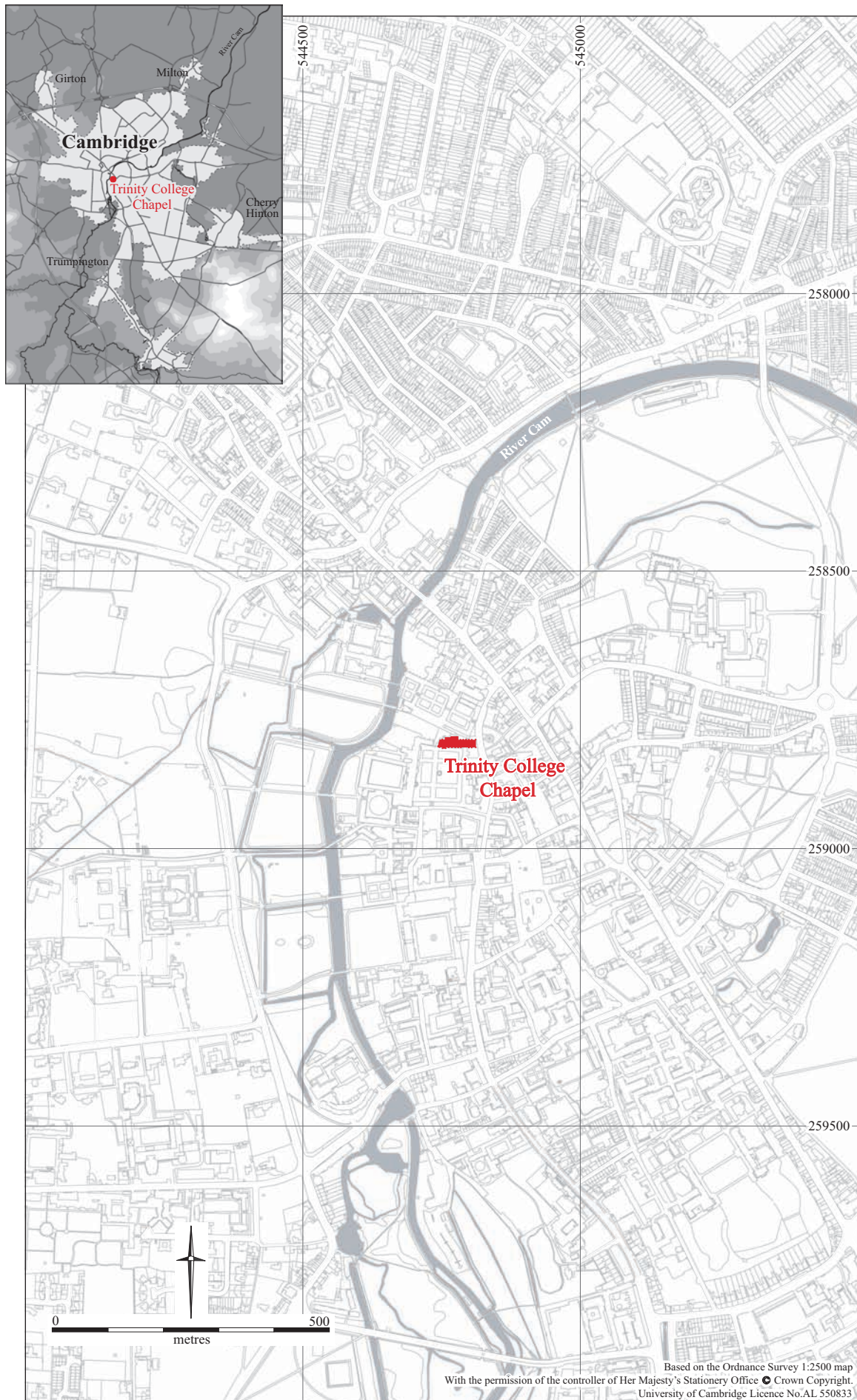


Figure 1. Site location.

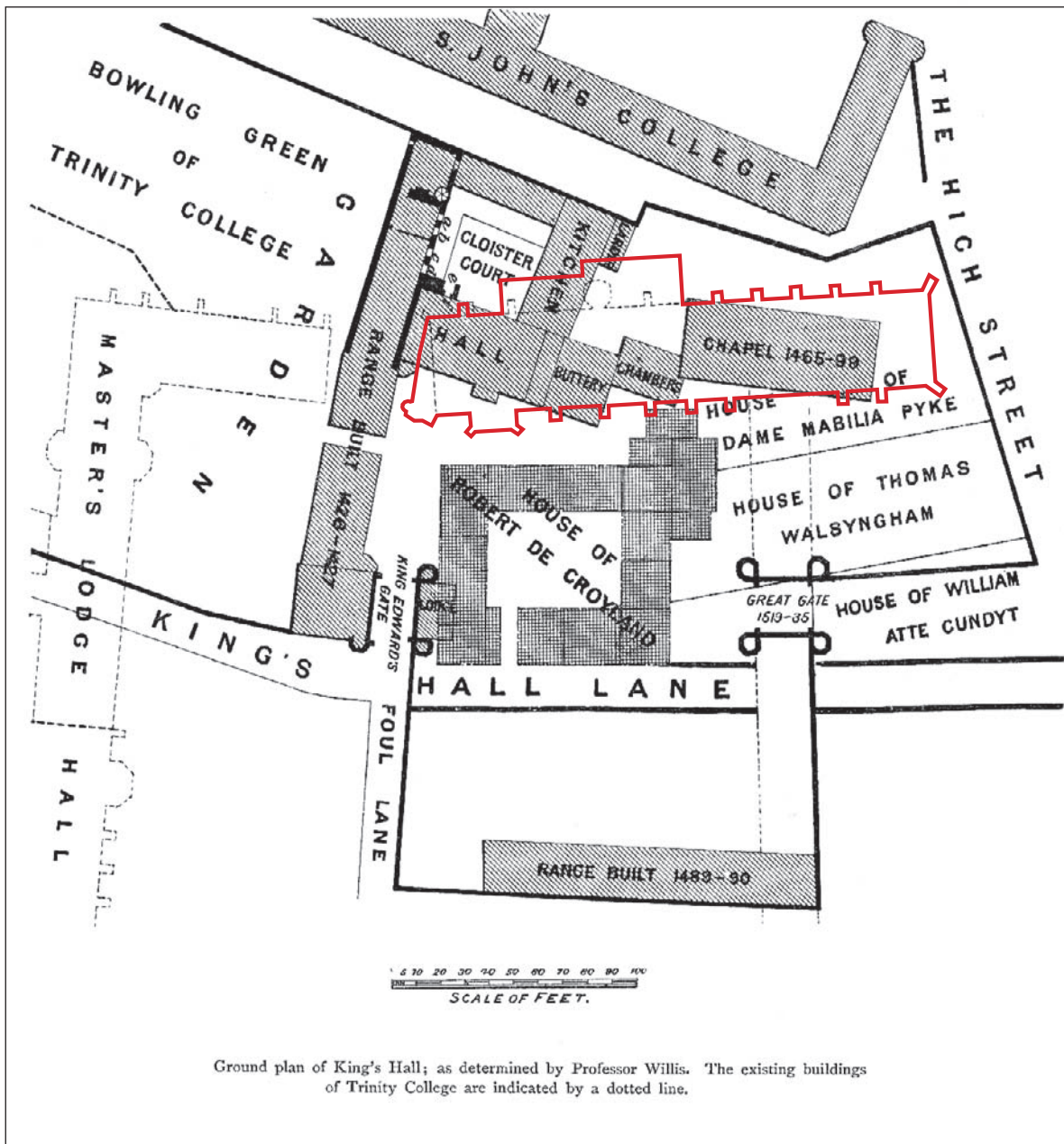


Figure 2. The Location of Trinity College chapel in relation to a reconstruction of the earlier buildings of Kings' Hall (from Willis & Clark 1886 II, Fig 6).

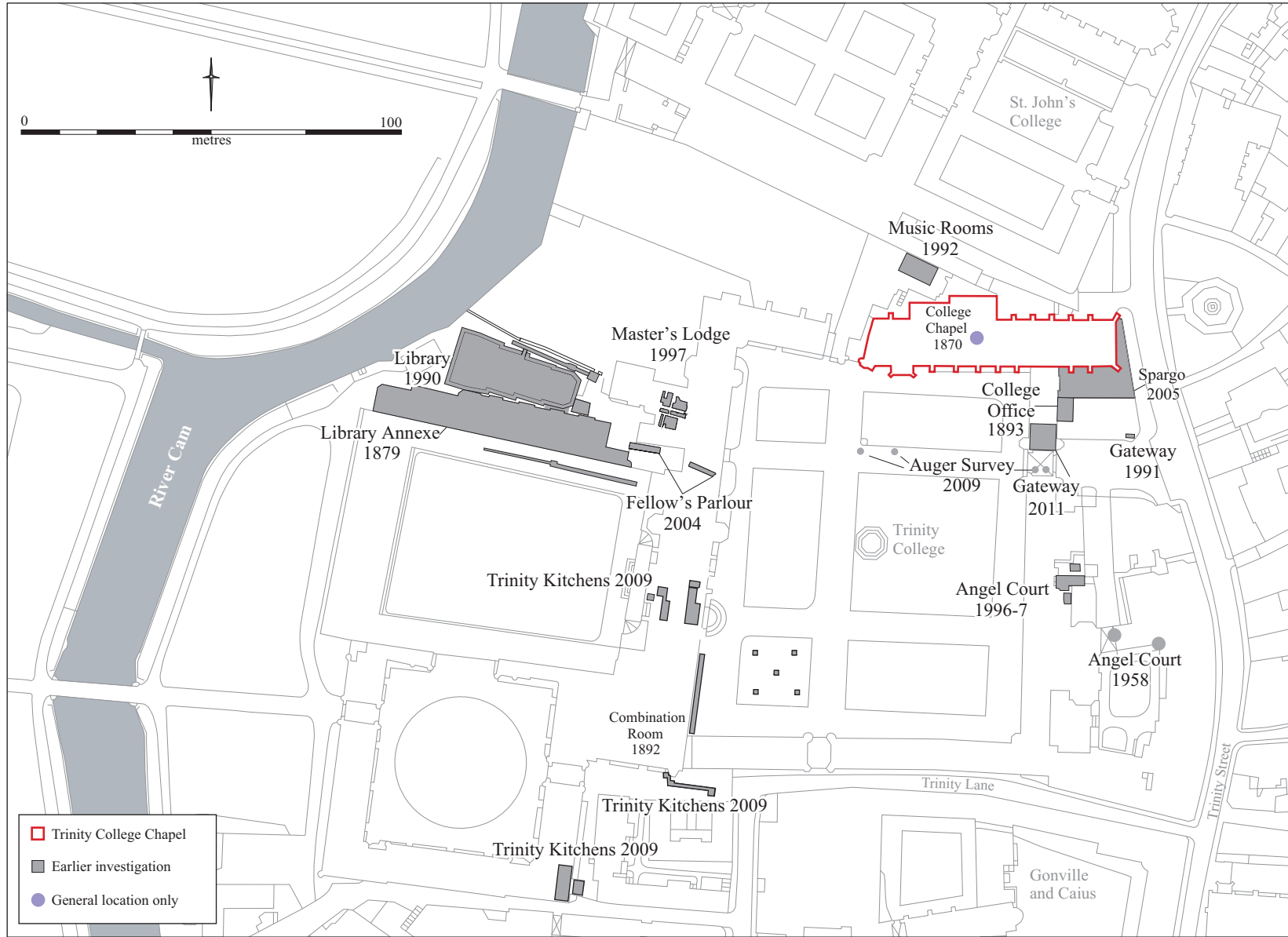


Figure 3. Location of chapel and other archaeological investigations undertaken within Trinity College.

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). This discovery was most probably made during the construction of the College’s New Court in the early 19<sup>th</sup> century. In addition, a little way to the north, a number of late Roman quarry pits – along with an associated metallated surface – were excavated at the Chapel Court and Master’s Garden of St. John’s College in 1992 (Dickens 1996, 4-8) whilst, a short distance to the south, two possible Roman quarry pits were identified during excavations conducted at the Bateman Building, Gonville & Caius College, in 1995 (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 10<sup>th</sup> 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 10<sup>th</sup> 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 11<sup>th</sup> 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 13<sup>th</sup> 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 14<sup>th</sup> century a number of relatively high-status domestic properties had been established. The area of the quire, for example, lay at this time within the property of one Dame Mabilia Pyke, whilst immediately to the south was situated the large house of Robert de Croyland (Figure 2; Willis & Clark 1886 II, 420-2). 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 later raised to the status of a college in 1337 (RCHM(E) 1959 I, 209; Cobban 1969). In addition, a short distance to the southwest of King’s Hall was situated 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). Subsequently, over the course of the succeeding century, the surrounding area passed increasing from the possession of ‘town’ into ‘gown’ as both Michaelhouse and King’s Hall gradually expanded to occupy many of the surrounding properties. A number of satellite hostels for fee-paying students were also established. This process of expansion culminated in 1546 with the establishment of Trinity College by King Henry VIII. At this time the site was occupied by three halls – those of Michaelhouse, King’s Hall, and Physick Hostel – plus a chapel – belonging to King’s Hall – and the premises of six subordinate hostels – comprising Garret Hostel, Ovyng’s Inn, St Gregory’s Hostel, St Margaret’s



Hostel, St Katharine's Hostel and Tyled or Tyler's Hostel – as well as a number of private properties (Willis & Clark 1886 II, 389; RCHM(E) 1959 I, 209-10). The majority of these pre-existing buildings were demolished and a piecemeal construction process began; Great Court and Neville's Court were completed during the 17<sup>th</sup> century, New Court and Whewell's Court during the 19<sup>th</sup> century and Angel Court, the Wolfson Building and Blue Boar Court in the 20<sup>th</sup> century (see further Trevelyan 1943).

A number of archaeological investigations have previously been conducted within the grounds of Trinity College (Figure 3). Of these, the most pertinent to the present excavation was undertaken during the late 19<sup>th</sup> century. At this time “a pilgrim's bottle, a silver penny of Edward I, and a Lancastrian badge of the date of about 1399-1405 were found in the Chapel while digging the foundation of the organ screen in 1870; and a globular glass bottle, at a depth of 6 feet, near to the Library door” (White 1894, 298-99). Close by, during an extension of the buildings associated with the college office between the Great Gate and the chapel that was undertaken in 1893, additional material was uncovered. Here, “in preparing the foundations 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” (*ibid.*, 297). During a more recent investigation in this area – undertaken during the refurbishment of the Porter's Lodge in 2011 – the stone-built sill wall of a 14<sup>th</sup> or 15<sup>th</sup> century timber-framed structure was identified, lying at 8.18m OD (Newman *in prep.*). Due to the limited extent of the excavation, however, the underlying deposits in this location were not investigated. Within the college Music Rooms, located a little way to the north of the chapel, a similarly limited excavation was undertaken in 1992. Here three masonry foundations were identified, at least one of which appears to have been associated with medieval King's Hostel (Miller 1992, 3-4). No heights were recorded, however, and the underlying deposits were not investigated. Finally, a core sampling survey was conducted outside the eastern end of the 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). Although made-ground was identified to a depth of c. 1.05m+, no further archaeological results were obtained.

Additional investigations, situated somewhat further from the present site, have also been conducted at Trinity Library Bookstore in 1989-90 (Cessford *in prep.*), at Trinity Gateway in 1991 (Evans 1991), 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 2011a). Where relevant, the results of these investigations will be discussed within the main body of the report.

## Results

The present area of investigation comprised the majority of the chapel's quire – the only exceptions being those portions that were occupied by the stalls and the altar, as these fittings remained *in situ* (Figures 5 and 6). Within this space, a number of different types of features were identified. These included made-ground deposits, structural remains, burials and modern disturbances/truncations.

544738/258708

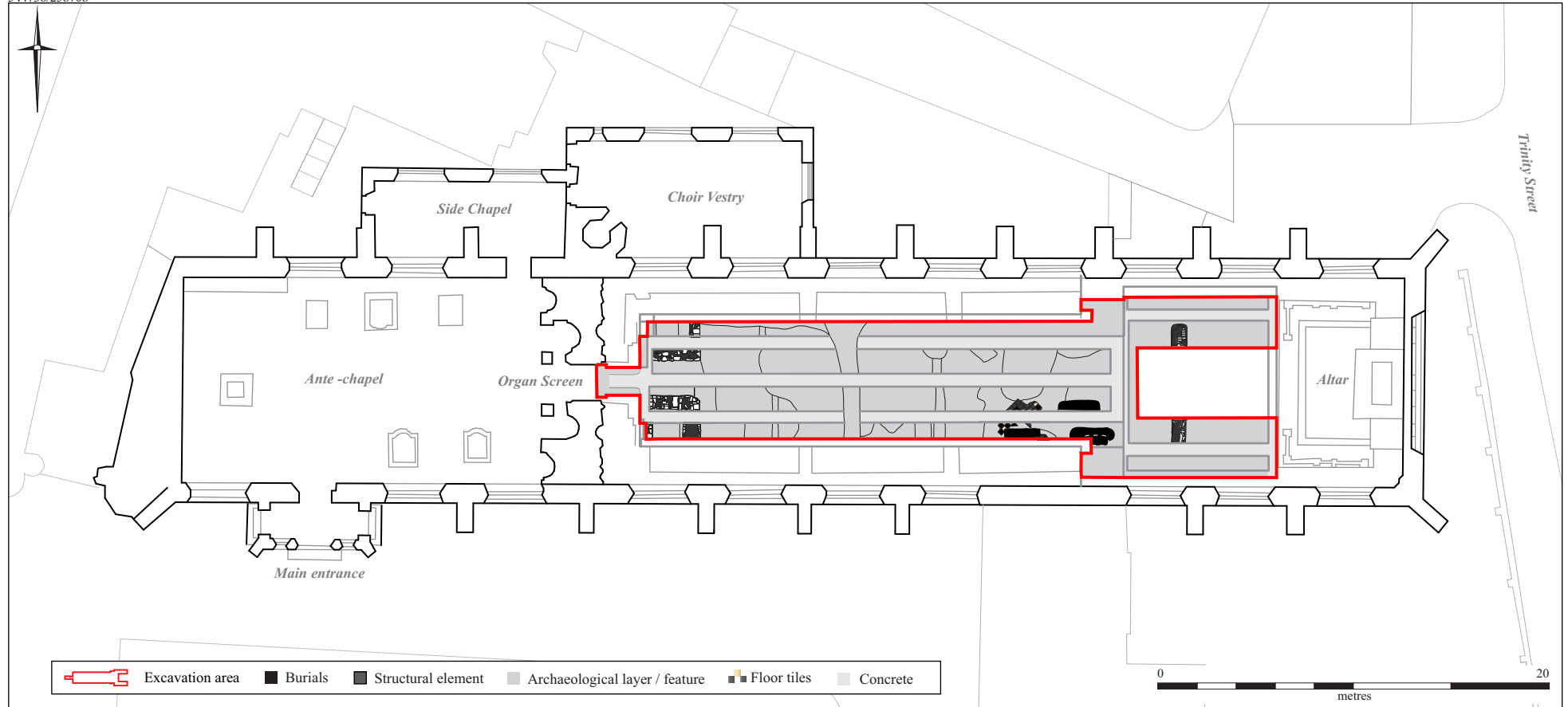


Figure 4. Plan of Trinity College chapel, showing area of investigation.

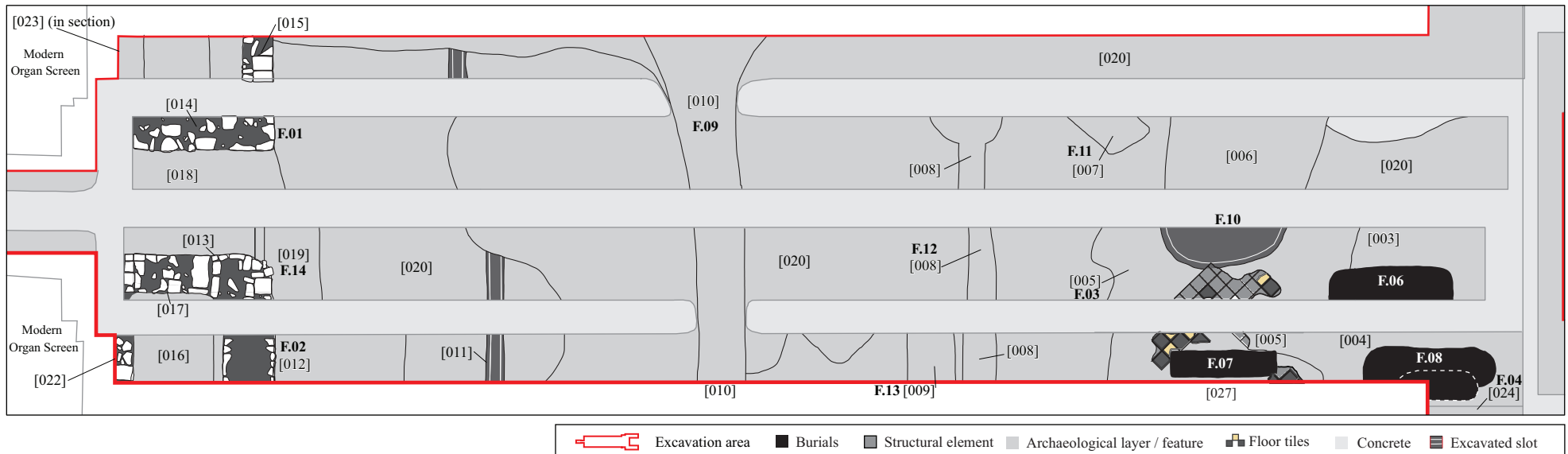
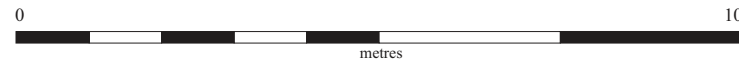


Figure 5. Photograph and plan showing details of the archaeology within the main body of the quire (photograph by Dave Webb).

In the first instance, a small number of deposits were identified that appear to represent the establishment of made-ground/levelling material during the initial stages of the chapel's construction. The uppermost of these deposits comprised **[020]**, a mixed and patchy layer that extended across the majority of the investigated area. Towards the western end of the site, three slots were excavated through this deposit. To the north it was found to overlie mortar and rubble demolition deposit **[021]**. To the south, however, a much denser mortar layer – **[011]**, which may have comprised an earlier floor or working surface – was encountered. Although this deposit was situated within the footprint of the former chapel of King's Hall, which was demolished in order to make way for the present standing structure, it does not appear to have been consistent with the floor of such a prestigious building. Instead, it was most probably associated with the primary stages of the construction of Trinity College chapel itself. Finally, a discrete cut feature filled with loose friable mortar – **F.14** – was also present. As this pit was truncated by substantial foundation **F.02**, it also appears most likely to have been associated with the extant chapel's initial construction.

**[020]** comprised a layer of dark brown to black humic clay silt, with occasional charcoal fleck and shell fragment inclusions. This material, which measured 0.15m thick, extended across the majority of the excavated area (covering 22.0m+ by 6.6m+ in extent). Lying beneath this layer to the north was **[021]**, which comprised a layer of loose friable white mortar with occasional brick and tile fragment inclusions that measured 0.15m+ thick. Underlying **[020]** to the south was **[011]**, which comprised a layer of firm off-white lime mortar whose upper surface lay at 8.80m OD. A copper alloy jetton dating to 1582-89 was recovered from **[020]**, but this was almost certainly intrusive and may potentially represent a chance loss from one of the nearby stalls.

**F.14** comprised a sub-rectangular cut feature that measured 1.1m+ by 0.9m+ in extent. It was not excavated. Its fill, **[019]**, consisted of loose friable white mortar.

A number of structural features associated with the original internal layout of the chapel were also identified during the course of the investigation. Much the most substantial of these consisted of near-symmetrical mortared rubble foundations **F.01** and **F.02**, which lay at the western end of the area (Figure 6). These were 'U-shaped' in form and had been constructed from reused grey clunch blocks. Also present towards the centre of the area was tiled floor remnant **F.03** (Figure 7). This comprised an alternating chequerboard design of plain dark green and yellow glazed tiles bedded upon a layer of thick lime mortar. Numerous scars of robbed tiles were also visible within the latter material. The survival of these tiles demonstrates that the original floor height of the chapel lay at 8.95m OD, or 0.38m below the present surface level. To the south of **F.03** was situated linear east-west oriented mortared rubble foundation **F.04**. This ran perpendicular to, but was clearly distinct from, the foundation of the present south stalls. Finally, towards the eastern end of the investigated area, north-south aligned wall foundation **F.05** was identified (Figure 9). Although heavily truncated, this consisted of two surviving 'islands' of red brick construction overlying mortared rubble foundations.

**F.01** comprised a 'U-shaped' mortared rubble foundation that was situated in the northwestern corner of the quire. In total, it measured a minimum of 2.42m+ east to west and 2.12m+ north to south. Due to the presence of later overlying concrete foundations, three separate context numbers – **[014]**, **[015]** and **[023]** – were assigned, the latter of which was only visible in section. The foundation consisted of grey clunch blocks, measuring on average 0.2m by 0.25m in extent, which were bonded with semi-friable coarse yellow sandy mortar. A distinct construction cut was also evident. This foundation directly mirrored **F.02**, located immediately to the south, although its constituent elements were notably around 0.35m narrower in width. It was not excavated.



Figure 6. Plan of surviving elements of organ screen foundations F.01 and F.02.

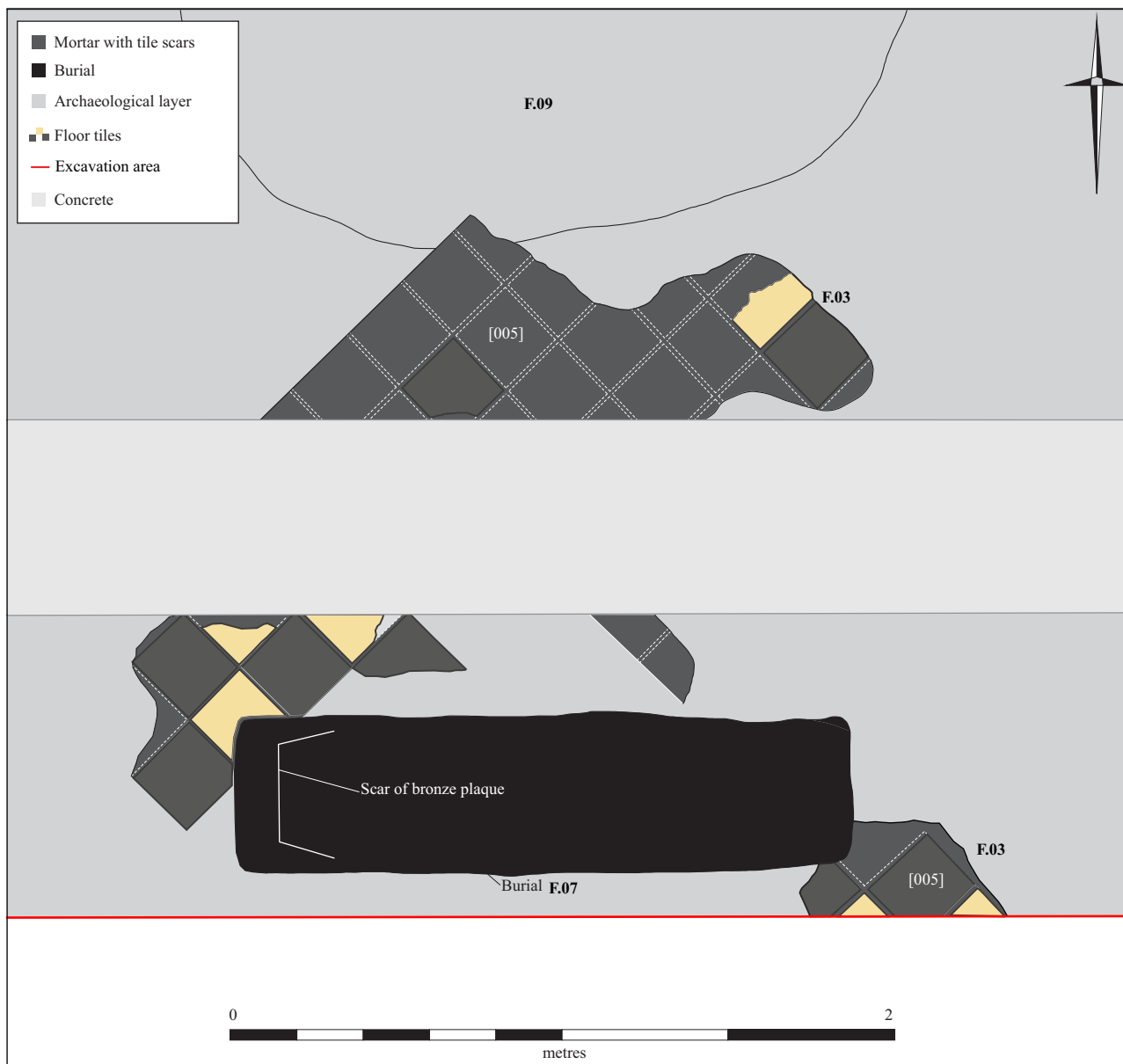
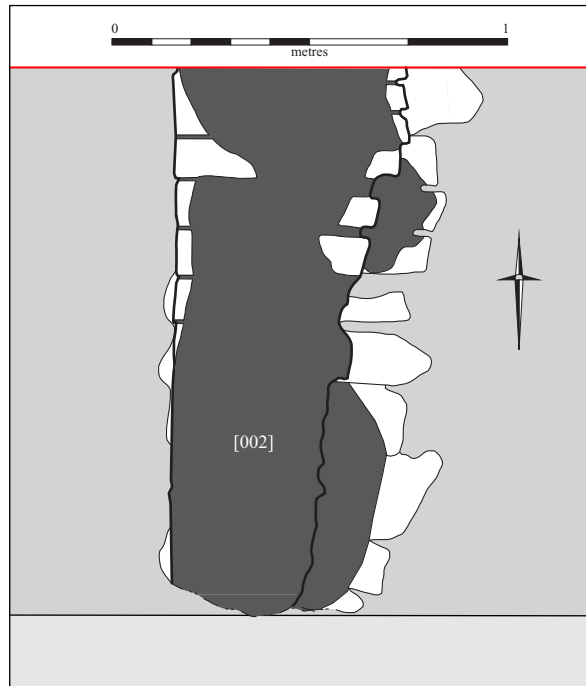
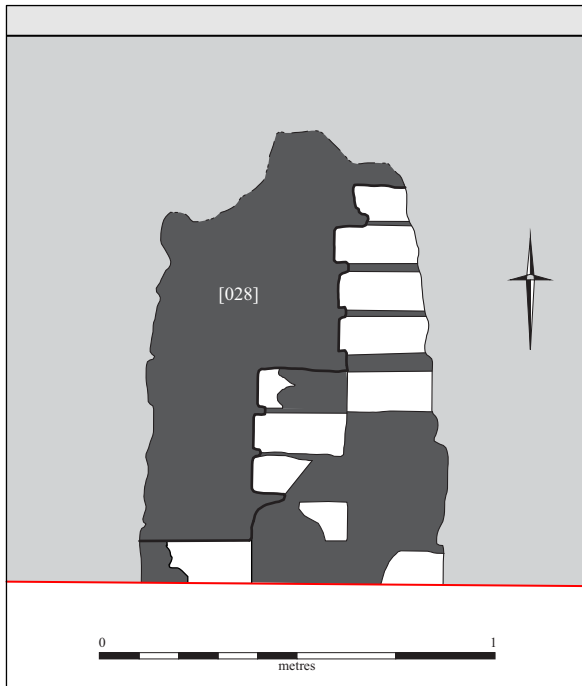


Figure 7. Detail of tiled floor remnant F.03.



□ Brick/masonry ■ Mortar ■ Concrete □ Excavation area

Figure 8. Plan and photograph of remnants of reredos foundation F.05 (photograph facing west).

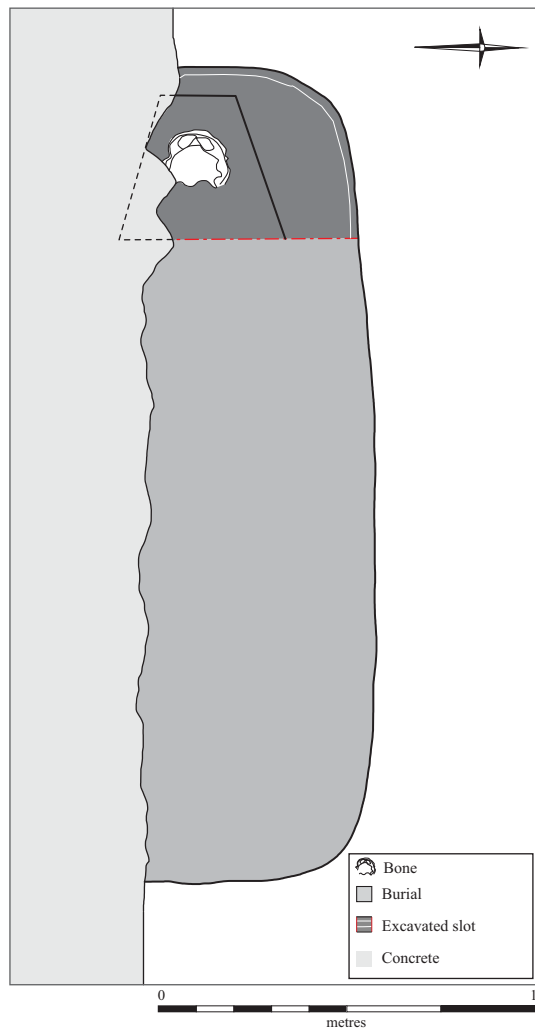


Figure 9. Plan and photograph of burial F.05 with, right, fragments of coffin furniture, several showing fabric impressions.



**F.02** comprised a ‘U-shaped’ mortared rubble foundation that was situated in the southwestern corner of the quire. In total, it measured a minimum of 2.75m+ east to west and 2.24m+ north to south. Due to the presence of later overlying concrete foundations, three separate contexts – **[012]**, **[013]** and **[022]** – were assigned. The foundation consisted of grey clunch blocks, measuring on average 0.2m by 0.25m in extent, which were bonded with semi-friable coarse yellow sandy mortar. A distinct construction cut was also evident. This foundation directly mirrored **F.01**, located immediately to the north, although its constituent elements were notably more substantial in width. It was not excavated.

**F.03** comprised the remnant of a tiled floor surface. This measured 2.62m+ by 2.44m+ in extent. The tiles, **[005]**, were arranged in rows aligned northwest-southeast at 45° to the main axis of the building. The tiles were square and measured 9 inches by 9 inches (or 230mm by 230mm) in extent and 1.18 inches (or 30mm) thick. They had plain dark green and mid yellow glazes and were very heavily worn. The *in situ* fragments were bedded upon a 0.05m to 0.07m thick layer of pale creamish yellow lime mortar, which bore the impressions of additional robbed tiles. Stratigraphically, this floor overlay made-ground deposit **[020]** and was truncated by burials **F.06** and **F.07**. Two tiles from this feature were retained as samples, but the remainder of the surface was left *in situ*.

**F.04** comprised a west-east aligned footing. It measured 2.2m+ long and 0.45m wide. Its fabric, **[024]**, consisted of irregular clunch and occasional red brick fragments bonded with dense cream lime mortar. It was not excavated.

**F.05** comprised a north-south aligned wall foundation. Two heavily truncated remnants of this feature – **[002]** and **[028]** – were identified. These measured 1.4m+ by 0.66m and 1.1m+ by 0.78m in extent respectively. Both consisted of a single course of lime mortared handmade red bricks, measuring 0.05m thick, overlying a foundation of on-edge ashlar blocks (measuring 0.2m by 0.18m by 0.08m on average). Both elements of this foundation were left *in situ*.

**[016]**, **[017]** and **[018]** comprised elements of a heavily truncated layer or surface. In total, they measured 4.0m+ by 2.6m+ in extent. Each context consisted of compacted mid grey compacted clay/clunch. These layers may thus have comprised part of a hardwearing surface associated with foundations **F.01** and **F.02**. They were not excavated.

In addition to the structural features outlined above, a minimum of three burials – comprising **F.06**, **F.07** and **F.08** – were also encountered. These features were discretely clustered towards the southern side of the quire, in close proximity to floor remnant **F.03** (Figure 5). In order to characterise the potential nature and extent of the survival of human remains within these features, a small slot was excavated into **F.06**. This revealed the presence of an *in situ* supine, extended west-east oriented adult inhumation (Figure 9). Although the bone itself was poorly preserved, most probably as a result of the high mortar content of the backfill of the grave, a well preserved coffin stain was evinced. In addition, a number of items of associated sheet iron coffin furniture were also recovered. This burial could be dated to the late 17<sup>th</sup> century on the basis of two clay tobacco pipe bowls that were recovered from its fill. Perhaps most notable of all, however, was the relative shallowness of the grave. The uppermost portion of the skull lay at 8.57m OD (or 0.76m below the present floor surface and 0.38m below tiled floor **F.03**), for example, whilst the uppermost surviving portion of the coffin lay at 8.81m OD (or 0.52m below the present floor surface and 0.14m below **F.03**). This raises the clear possibility that additional burials might have been disturbed, or even completely removed, by later truncation (In this context, it may be significant that disarticulated human remains were observed within modern backfill deposit **[001]** – see further below). **F.08** appears to have been very similar in nature to **F.06**, although the irregularity of this feature implies that it may represent two intercutting burials. By way of contrast, however, **F.07** was notably distinct from its neighbours. This grave was much smaller – its cut being little larger than the size of a coffin – and had been backfilled (or perhaps capped) with a deposit

of mortared rubble. Furthermore, this latter material had preserved the partial outline of a commemorative plaque or tablet (Figure 7), thereby demonstrating that this interment was once clearly demarcated upon the chapel floor.

**F.06** comprised a west-east aligned grave. Its cut, **[029]**, measured 2.15m by 0.61m+ in extent; it had vertical sides but its base was not reached. The fill of the grave, **[003]**, consisted of loose mid-dark greyish-brown silt with occasional to frequent mortar, clunch rubble and brick fragment inclusions. Two clay pipe bowls dating to *c.* 1660-80 were also recovered. The coffin itself was represented by a distinct dark brown stain and the discrete impressions of individual boards were preserved. Six items of sheet iron coffin furniture – most probably consisting of decorative grip-plates – were also identified. The fill within the coffin, **[030]**, was notably different from that of grave; it consisted of very loose pale cream mortar. This material had had a detrimental impact upon the preservation of the human remains, which were badly degraded and highly friable. The surviving fragments, along with the associated coffin furniture, were reburied once recording had taken place.

**F.07** comprised a west-east aligned grave. Its cut measured 1.85m by 0.45m in extent. Its fill, **[027]**, consisted of clunch fragments set in pale orange sandy mortar, which appeared to have been ‘poured’ directly into the feature. The scar of a probable plaque or tablet was visible at the western end of the grave. This feature was not excavated. Stratigraphically, it truncated tiled floor **F.03**.

**F.08** comprised a west-east aligned grave. Its cut measured 2.3m by 0.85m+ in extent. Its fill, **[004]**, consisted of loose mid-dark greyish-brown silt with occasional to frequent mortar, clunch rubble and brick fragment inclusions. The irregular form of this feature to the south, where a distinct bulge was present, suggests that a fourth burial may also be present in this location.

Finally, a number of features that post-dated the initial usage of the chapel were identified. The majority of these – including **F.09**, **F.10** and **F.12** – are likely to be relatively modern in date. **F.09**, for example, truncated the concrete foundations associated with the heating system that had been installed in 1934-6 (Appleby 2010, 6; Figure 5). Whilst this was not the case with **F.12**, its size and orientation – running parallel to **F.09** – suggest that it is most likely to have been service-related in nature, although the possibility that it represents the robbing of a structural element such as a wall cannot be entirely discounted. **F.10**, meanwhile, had been backfilled with loose friable white mortar. This material was clearly inadequate to have acted as a floor surface, therefore implying that the feature was of more recent origin and had been cut down into the earlier deposits. Similarly, **F.11** and **F.13** had also been backfilled with deposits of loose friable white mortar. These features again appear most likely to represent later truncations, perhaps associated with the widespread phases of alteration/modernisation that are known to have been undertaken within the chapel during the 18<sup>th</sup> and 19<sup>th</sup> centuries. The final deposit consisted of modern backfill **[001]**, which was associated with the heating system that was installed in 1934-6. Although the concrete heating ducts themselves were largely broken out and removed prior to the commencement of the investigation, their bases remained *in situ* (Figure 5). As such, therefore, these elements may have masked the presence of additional archaeological features or deposits.

**F.09** comprised a linear north-south aligned feature. It measured 6.2m+ by 0.90m in extent. Its fill, **[010]**, consisted of mid to dark brown clay silt with occasional mortar and brick fragment inclusions. It was not excavated.

**F.10** comprised a large sub-oval cut feature. It measured 2.55m+ by 2.65m in extent and a minimum of 0.20m+ deep. Its fill, **[006]**, consisted of loose friable white mortar. A slot was excavated at the southern end of this feature, but no datable material culture was recovered.

**F.11** comprised a sub-rectangular cut feature. It measured 1.0m+ by 0.8m+ in extent. Its fill, **[007]**, consisted of loose friable white mortar. It was not excavated.

**F.12** comprised a linear north-south aligned feature. It measured 4.5m+ by 0.5m in extent. Its fill, **[008]**, consisted of loose friable white mortar. It was not excavated.

**F.13** comprised a sub-square cut feature. It measured 0.9m+ by 0.9m+ in extent. Its fill, **[009]**, consisted of loose friable white mortar, much of which bore distinct lath impressions. It was not excavated.

**[001]** comprised a layer of mixed rubble, silt and hardcore that was deposited following the introduction of an underfloor heating system to the quire in the 1930s. This material was removed by the principal contractor prior to the commencement of the investigation. A number of finds were recovered, however, including a significant moulded stone assemblage, a small quantity of pottery and several human bones. The latter were reburied on site.

## Material Culture

A relatively small assemblage of material culture was recovered during the investigation of Trinity College chapel. Given the ecclesiastical context of the site, such a result is by no means unusual. The assemblage – which includes metalwork, pottery, clay tobacco pipe, moulded stone and ceramic building materials – has been subdivided by material type and is discussed in detail below. Of the various materials recovered, the moulded stone assemblage is of particular significance.

### Jetton (Martin Allen)

A copper alloy jetton, weighing 1.41g and measuring 22mm in diameter, was recovered from **<18> [020]**. It is a Nuremburg Rose/Orb type of Hans Krauwinckel II (fl. 1586-1635). The reverse reads *Heyt rodt morgen todtt*, and this legend has been dated to 1582-89 (Mitchiner 1988). The recovery of this jetton in close proximity to the former stalls indicates that it may represent a chance loss; very similar objects have previously been identified lying beneath the stalls of King's College chapel (see Dickens 2001).

### Ironwork (Richard Newman)

Six items of sheet iron coffin furniture were recovered during the investigation of mid to late 17<sup>th</sup> century burial **F.06** (Figure 8). Although badly degraded, these items – which most probably comprised non-structural grip plates – were clearly of quite elaborate form. Their size and shape indicate that they were primarily decorative as opposed to functional in nature. Furthermore, several of the fragments bore clear textile impressions. This demonstrates that the outer case of the coffin was fabric-covered, almost certainly with black material (Litten 1991, 99). Once exhumed, these items were photographed and then reburied alongside the undisturbed human remains. Some of the closest excavated parallels to these items have been recovered from London. At Christ Church, Spitalfields, for example, a large quantity of coffin furniture was recorded (Reeves & Adams 1993, 83-88), although it should be noted that the burials at this site were somewhat later than the present example (dating to 1729-1852).

### Pottery (Richard Newman with Craig Cessford)

A small assemblage of pottery – consisting of 13 sherds, weighing 374g – was recovered from the investigations at Trinity College chapel. This group comprised residual material within backfill deposit **[001]**. The earliest, medieval material – which was 13<sup>th</sup> to 15<sup>th</sup> century in date – is likely to have been disturbed from pre-chapel deposits. The remainder of the assemblage, however, which is 16<sup>th</sup> to 17<sup>th</sup> century in date, is broadly contemporary with the introduction of levelling/make-up deposits within Trinity College chapel itself.

Period	Fabric	Count	Weight (g)	MSW (g)
Medieval	Medieval Ely ware	1	29	29
	Grey coarseware	3	25	8.33
Post-Medieval	German stoneware (Frechen/Raeren)	4	223	55.75
	Babylon ware	1	43	43
	Babylon-type lead-glazed earthenware	2	9	4.5
	Plain red coarseware	2	45	22.5
		<b>13</b>	<b>374</b>	<b>28.77</b>

**Table 1:** Trinity Chapel pottery assemblage by type.

### Clay Tobacco Pipe (Craig Cessford)

Three clay tobacco pipe bowls were recovered during the investigations undertaken at Trinity College chapel. In general, the presence of clay tobacco pipe fragments in a context indicates a date between late 16<sup>th</sup> to early 20<sup>th</sup> centuries (c. 1580-1910). Bowls, however, can often be more closely dated via comparison to Oswald's simplified general typology (1975). In this particular instance, the first bowl – which was recovered from backfill deposit <011>, [001] – conformed to Oswald's General Type 5, which is dated to c. 1640-60. The two remaining examples were recovered from grave fill <012>, [003]. These both conformed to Oswald's General Type 6, which is dated to c. 1660-80. No marker's marks or other identifiable decorations were present on any of the pieces.

### Moulded Stone (Mark Samuel)

This small but significant group consisted of eight items (Table 1). The elements were mostly well-preserved, although battered – probably as a result of demolition. Geological identifications are provisional but two familiar types of building stone were noted: a fine grain chalk ('clunch'), probably quarried from a range of locations near Cambridge, and a honey-coloured *spar-prominent* oolitic limestone (this was probably quarried near Barnack, Lincolnshire). The use of both types of stone in one window is borne out by moulding comparison (see below) and the mechanical strength of Barnack stone was exploited for mullions while tracery was cut from the more tractable Burwell stone. Table 2 summarises basic conclusions; dating is based on moulding pattern.

It is clear from the surviving historical accounts that the principal source of the architectural material that was reused in the construction of Trinity College chapel was Cambridge's former Franciscan Friary (now the site of Sidney Sussex College). Indeed, by the mid 1560s only a single structure is known have remained standing at the latter site. Amongst the monastic buildings that were demolished and transported for reuse at the new foundation were the church (in 1546-47) the belfry, the cloister, the graveyard and the schoolhouse (in 1553-4) (Willis & Clark 1886 II, 726). In addition, a relatively substantial quantity of architectural material also appears to have been imported from Ramsey Abbey, once the supply from the Franciscan Friary had been exhausted, and a much smaller quantity of stone was also sourced from Peterhouse College during the initial stages of the chapel's construction. It should also be noted, however, that due to the nature of the contexts from which the fragments were recovered during the recent archaeological investigations – which almost entirely consisted of 17<sup>th</sup> to 19<sup>th</sup> century made-ground deposits and/or roughly mortared foundations – the possibility that additional material from different sources was subsequently imported to the site cannot be entirely discounted. The assemblage, with one exception, is compatible in date with the known date of the Franciscan Friary whose fabric was re-utilised in the building begun in 1555, and none can be seen to derive from the new building itself. The *Early English* string course <008> could however have derived from Ramsey Abbey. Given the small size of the sample, it is of interest that at least two mouldings derive from the same window, while two others share moulding elements. This apparent lack of intermixture further argues against Ramsey Abbey as the main source of this assemblage. It will be noticed that while the Franciscan Friary is documented as a foundation of 1226, the mouldings are significantly later. This is to be expected: such friary complexes normally underwent a protracted development as Mendicant orders gradually moved away from the early restrictions on elaborate architecture.



Figure 10. Photographs of significant elements of the moulded stone assemblage with, below, *ex situ* fragments as reused in the present stall foundations.

Catalogue no.	Building Stone	Patterns	Component element	Major element	Early date	Late date	Comments
001	Clunch	Hollow chamfer, glazed, foiled, cusped	Tracery	Glazed window	1340	1400	Associated with Barnack strong mullion <003>; junction between assymmetrical archlets
002	Clunch	Chamfer, glazed, roll, radius	Tracery	Glazed window	1340	1400	Same building campaign as <004>? Cannot be oriented
003	Barnack	Hollow chamfer, fillet, quirk, bead	Mullion	Glazed window	1340	1400	Attenuated moulding
004	Barnack	Chamfer, fillet, reveal	Mullion	Window	1280	1340	Came glazing inserted at a later date, same building campaign as <002>?
005	Barnack	Hollow chamfer, rebate fillet	Mullion	Window	1260	1300	Came glazing inserted at a later date
006	Barnack	Spiked wave, fillet	?jamb	?window	1320	1340	Recut to form pavior
007	Barnack	Polygon, radius	Label	?window	1260	1340	Weathered <i>in situ</i>
008	Barnack	Wave	String course	Exterior wall face	1190	1240	Battered and abraded

**Table 2:** Catalogue of architectural fragments from Trinity College chapel.

It is of interest that the two early mullions <004> and <005> had simple profiles without integral glass (glass may have been in shutters or removable timber frames); the evidence of modification for *came* glass illustrates this relaxation of standards. <005> demonstrates a very early use of paired hollow chamfers in a mullion; Morris sees such a use as a post-1340 innovation (1979, 10) but this picture may need to be revised. Mullion <003> shows the use of *came* glass, and the very long and shallow hollow chamfers date shortly before the Black Death. The added internal roll is separated from the chamfers by canted straight pieces; this predates the *quirks* parallel to the wall line characteristic of the Perpendicular style to its end. In associated minor tracery <001>, these cants form an unusual pointed axial termination. The two fragments of surviving tracery <001> and <002> display fully developed if early Perpendicular patterns. The hierarchical relationship between foil and order is characteristic of that style, but blade-like terminations on the foils are archaic features. The continued popularity of the plain chamfer is seen in the tracery <002>. Such plain chamfering is considered characteristic of western England (*ibid.*, 8) but its common occurrence at the Norwich Whitefriars (Samuel *in prep.* b) may reflect cultural as well as regional choice. The attenuated long axes of the window mouldings characterise early Perpendicular outside the London area; similar attenuation is observed as far afield as the Norwich Whitefriars (*ibid.*) and Torre ‘Abbey’ (a south-western Premonstratensian house: Samuel *in prep.* c).

The restricted range of building stones is similar to the Norwich White Friars where, as well as clunch (clunch: 33%) and East Anglian oolites (?Barnack: 36%), more exotic stones also, such as ?Caen/?Magnesian were used (Samuel 2006, chart 4); these imports may reflect that city’s greater access to sea trade. The two building stones in the Trinity College chapel assemblage resemble the Grand Arcade site, where 90% of the stone is from East Anglia (Samuel *in prep.* a), as well as the assemblages recovered from the nearby Trinity Library Bookstore (Cessford *in prep.*) and Trinity College Kitchens excavations (Newman 2011a). In contrast, the Ipswich Blackfriars and Greyfriars were exclusively dressed with a fine creamy limestone, probably Caen stone (Samuel 1992, 2) and this was also the stone of first choice at the Norwich Greyfriars (Samuel 2007, 98). This may reflect the lack of local building stone; suppliers of sea-borne stone from Normandy

could compete successfully against distant inland English quarries. The tooling marks on the stones, where surviving, bear witness to the use of comb-type finishing tools, which began to be adopted in the final quarter of the 13<sup>th</sup> century (Samuel 2001, 154); these probably resembled the modern *cock's comb*. The stones were however initially *cut to bank* with a boaster.

#### **Ceramic Building Materials** (Richard Newman)

The ceramic tiles which comprised floor remnant **F.03** were composed of a coarse red earthenware fabric with occasional small grit inclusions. Although no complete examples were present, from the remaining fragments – and associated mortar scars – it is clear that they originally measured 9 inches by 9 inches (or 230mm by 230mm) in extent and 1.18 inches (or 30mm) thick. The alternating dark green and pale yellow glaze, although thick, was very heavily worn and abraded. No trace of an additional design or decoration was identifiable, however, and it is most likely that the ‘chequerboard’ layout itself comprised the main decorative scheme. Representative samples of a green and a yellow tile were retained.

#### **Human Remains** (Richard Newman)

A small quantity of disarticulated bone, including both human and animal material, was encountered during the investigations. The majority of this material was present within 20<sup>th</sup> century backfill deposit **[001]**. All of the human remains – including any indeterminate animal bones – were reburied on site. The presence of disarticulated human bone within later deposits suggests that one or more burials may potentially have been disturbed, or even removed, by 20<sup>th</sup> century service works.

## **Discussion**

When Trinity College was first founded, in 1546, it took possession of two extant College chapels. The first of these – St Michael’s, which had formerly belonged to Michaelhouse, the smaller of the two preceding Colleges – had previously served a dual ecclesiastical role. Along with its collegiate associations, which extended to both Michaelhouse and nearby Gonville & Caius, it also served a parochial function as the local parish church (RCHM(E) 1959 II, 284-86; Loewe 2010, 595). This meant that the degree of space allotted to the new college was restricted to the church’s north aisle. Furthermore, at the time of its acquisition by Trinity, St Michael’s – which had been extensively rebuilt in 1325-28 – was already well over 200 years old (RCHM(E) 1959 II, 285). By way of contrast, however, the second chapel at the site – which had formerly belonged to King’s Hall – was of relatively recent construction. Built in 1464-85, King’s Hall chapel was a relatively large and exclusively collegiate structure, although its precise extent and design remain unknown (Willis & Clark 1886 II, 454). It comes as little surprise, therefore, that in 1546 it was the chapel of King’s Hall that was chosen to be “fitted up on an enlarged scale for the new foundation” (*ibid.*, 561). Henceforth, the church of St Michael – which remains standing to this day – was to serve a solely parochial role. But the reconstituted chapel did not prove to be entirely suitable for the new foundation. This is because King’s Hall, which was a moderately sized medieval college, had originally provided accommodation for a Master and thirty-two Fellows (Rouse Ball 1906, 41); in all, fifty resident members were recorded as present when the institution was dissolved in 1546 (Lee 2005, 144). In contrast, however, Trinity College was much larger. It was originally endowed to support fifty undergraduate Fellows, ten undergraduate Scholars and forty Grammarians. In 1548, a total of 143 individuals were recorded as resident in the College (Leader 1988, 346). This represents an almost threefold increase in the number of worshippers using the chapel in only two years. As a result, it was quickly determined that a new and enlarged chapel was required.

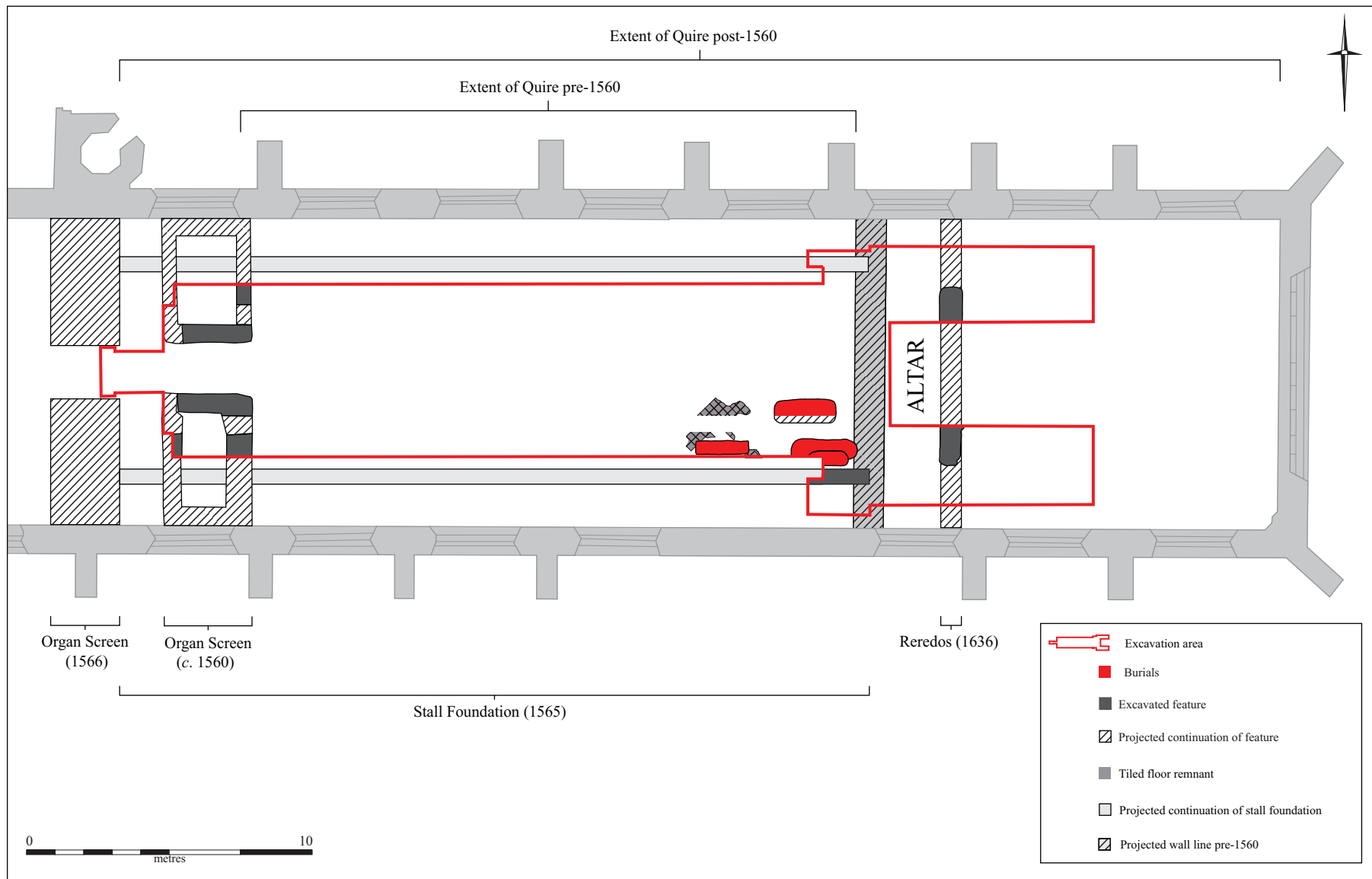


Figure 11. Reconstruction of the principal elements of the 16th century college chapel.



Work on this replacement structure, which was positioned in such a way as to entirely ‘subsume’ its predecessor, was begun in 1555. In 1557, when its construction was in full swing, 2950 cartloads of stone were imported to the site from Cambridge’s former Franciscan Friary (founded 1226, and now the site of Sidney Sussex College), and 192 loads from Peterhouse College (founded 1280) (Willis & Clark 1886 II, 562). By the end of that year, around three-quarters of the building had been carried up to half its height (*ibid.*). It should be noted, however, that at this time the chapel was notably shorter than the present standing building; the decision to extend the quire to the east, beyond the line of the college gateway, only appears to have been made in *c.* 1560 (*ibid.*, 573). By 1561 the walls as they now stand were substantially complete, and the old chapel – which had effectively become entombed within the new structure – was demolished (*ibid.*, 567). Nevertheless, the replacement building was not completed until 1567. During the latter stages of the project, the supply of stone from the Franciscan Friary appears to have been largely exhausted and additional material was therefore imported from Ramsey Abbey (founded 969) (*ibid.*, 568-9). In 1562-3, for example, 342 cartloads of material were brought from the latter site compared to only 108 from the former. Furthermore, as the majority of the Friary material was “laide in the dores of the new chappell” (*ibid.*, 567), it is possible that it consisted of salvaged architectural elements as opposed to the more general ashlar and rubble that had previously been imported. Overall, however, it is very likely that the majority of the moulded stone assemblage that was recovered during the recent investigations was originally derived from the former Franciscan Friary. At least three separate phases of building – of early 13<sup>th</sup>, late 13<sup>th</sup> to mid 14<sup>th</sup> and late 14<sup>th</sup> century date respectively – are represented amongst this material. This potentially accords with the range of buildings, of differing dates, that are known to have been demolished at the Friary site. These included the church, the belfry, the cloister, the graveyard and the schoolhouse (Willis & Clark 1886 II, 726; RCHM(E) 1959, 210; see also Darby & Miller 1948).

Unfortunately, of Trinity College chapel’s initial 16<sup>th</sup> century fixtures, fittings and decoration little if anything now remains extant. The original organ screen, stalls and reredos were all removed during subsequent phases of renovation and alteration that were conducted on an intermittent basis throughout the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> centuries. The arrangement of the fittings was, however, recorded in the late 17<sup>th</sup> century. Furthermore, “as there is no appearance of any change having been made in the interval, [these measurements] may be regarded as representing in the main at least the system followed out at the first construction” (Willis & Clark 1886 II, 574). The measurements that were given are as follows:

From y <sup>o</sup> East End to y <sup>o</sup> Backside of y <sup>o</sup> present Altar piece	36 feet long
From y <sup>o</sup> present Altar to y <sup>o</sup> present Seats	24 feet long
From y <sup>o</sup> east end of y <sup>o</sup> Seats to y <sup>o</sup> Organ Screen	70 feet long
Y <sup>o</sup> screen it self	8 feet long
Y <sup>o</sup> antichappell	65 feet long
Y <sup>o</sup> Breadth of y <sup>o</sup> Quire	18 feet long

Significantly, the existence of this record allows a comparison to be made between the historical account on the one hand and the archaeological features that were encountered on the other. Such a comparison reveals an important disparity. This is because, at the western end of the investigated area, masonry foundations **F.01** and **F.02** appear at first glance to be consistent with the footings of the original rood loft

(or organ screen), a feature that acted as a partition separating the antechapel in the west from the quire in the east (Figure 6; see also Peters 1996, 69-70). They are of the correct form and size, and of a suitably substantial build. But, crucially, they are not located in the correct position. The rood loft that was constructed in 1565-66 is known to have been situated around 3m further to the west (Willis & Clark 1886 II, 574). Here access could be gained to its upper storey via an external stair turret, which remains extant, and a suitable space was left between the windows in the north and south walls to allow the screen to be erected (see Figure 11). This location also accords with the measurements presented above. Foundations **F.01** and **F.02**, meanwhile, appear most likely to have predated the final completion of the chapel. Although they are not situated on the appropriate alignment to have been associated with the preceding chapel of King's Hall (which lay at an angle of approximately 30° to the present structure) it does seem probable that they were constructed prior to *c.* 1560, when the footprint of the building was altered. A substantial amount of construction work is certainly known to have been undertaken before the decision to extend the building was made (*ibid.*, 573) and this could well have extended to the instillation of footings which were intended, but never used, to support substantial internal features.

In addition to these foundations, several well-used elements of the completed 16<sup>th</sup> century chapel were also identified during the recent investigations. Further to the east, for example, within the main body of the quire, a small portion of the original tiled floor surface was present (**F.03**; Figure 7). This consisted of an alternating 'chequerboard' design of plain green and yellow glazed tiles that were bedded upon a thick layer of lime mortar. The surface of the tiles was heavily worn, indicating that they had remained in use for many years. Although later truncation – primarily associated with the insertion of an underfloor heating system in 1934-36 – had heavily scalped the remainder of the area, it is probable that these tiles originally extended across the majority of the quire. Indeed, it was common within churches at this time to distinguish between different spatial areas – which were often segregated on a strict hierarchical basis – via the use of different flooring materials and/or changes in floor level (Rodwell 2005, 154). The tiles surrounding the altar are thus likely to have been much more decorative than those employed in the main body of the quire, whilst the floor of the antechapel may not have been tiled at all. Also present within the area of investigation was foundation remnant **F.04**. This appears most likely to represent a portion of a footing associated with the original 16<sup>th</sup> century stalls (see Figure 11). Following the establishment of their foundations in 1564-65, work on the stalls themselves was completed in 1566 (Willis & Clark 1886 II, 570). Although no longer extant, the indenture for the original carpentry has survived. This reveals that “the stalls were to be in two rows, sixty-eight in the upper row with misereres, and divided by pillars; and a lower row, which was not to be so divided. The whole work was to be after the pattern of the stalls at King's College” (*ibid.*, 562). By local tradition, the stalls now present in St Michael's church were originally derived from Trinity College chapel (*ibid.*, 585). But as the stalls in question appear in fact to be late 15<sup>th</sup> century in manufacture (RCHM(E) 1959 II, 286), they predate this structure by *c.* 100 years. If they are indeed collegiate in origin then they are perhaps most likely to have been derived from King's Hall chapel, and to have been donated by Trinity when their replacement building was constructed.

Alongside these architectural features, a minimum of three – and probably four – burials were also identified during the course of the recent investigations. These were discretely clustered towards the eastern, altar-end of the quire (see Figure 11). It should be noted, however, that the existence of *in situ* concrete in this vicinity – along with numerous spread deposits, as well as later cut features – may well have masked the presence of additional graves. Furthermore, the presence of disarticulated human remains within made-ground layer [001] suggests that earlier burials may have been disturbed by modern truncation. The date of the single excavated burial, **F.06**, could be determined with some accuracy as its backfill contained two clay pipe bowls dating to 1660-80. This evidence also tallies with the nature of the coffin that was partially preserved within the grave. This is because “during *c.* 1660-75 the trapezoidal gable-lidded coffin gave way to the single-break flat-lidded type, shaped at the shoulders. The coffin furniture – the term given to the appliqué metalwork fixed to the black fabric-covered outer case – was usually quite plain, with very simple grip plates and grips of a type found on most average items of domestic furniture of the period, being of sheet iron and wrought iron respectively” (Litten 1991, 99). The early adoption of this new design, when taken in conjunction with the relatively ornate coffin furniture that was recovered (see Figure 8), indicates that this was a burial of some status. The proximity of the grave to the altar also supports this interpretation. As such, therefore, **F.06** is perhaps most likely to represent the burial of a Senior Fellow or former Master of the college.

During the relevant period, five individuals held the position of Master. They comprised: John Wilkins (1659-60); Henry Ferne (1660-62); John Pearson (1662-72); Isaac Barrow (1672-77); and John North (1677-83); a full list of the Masters of Trinity College is presented in an appendix at the end of this report. A similar pattern of spatial distribution, whereby the highest status burials were situated in the closest proximity to the altar, has also been identified within the former chapel of St John’s College (see Newman 2011b). In contrast to the present site, however, the burials at St John’s were interred within brick-lined vaults. Indeed, after *c.* 1600 interments within vaults in this manner became the most common form of intramural burial (Gilchrist & Morris 1996, 119; Gilchrist 2003, 402; Litten 1991, 211-2). Notably, a probable example of a brick-lined vault was identified as a void within the uninvestigated portion of the quire by a ground penetrating radar survey that was undertaken prior to the commencement of the present works (see Appleby 2010). A number of additional vaults were also identified lying within the antechapel to the west.

The first major alteration to the original layout of the chapel occurred in 1636. At this time it was “agreed by y<sup>e</sup> M<sup>r</sup> and y<sup>e</sup> Seniors to set o<sup>r</sup> Communion-table in o<sup>r</sup> Chappell as it is in Cathedrall Churches and Chappells, at y<sup>e</sup> upper end, and y<sup>e</sup> ground to be rased; and y<sup>t</sup> y<sup>e</sup> chappell be adorned accordingly” (Willis & Clark 1886 II, 575). Consequently, it appears that a substantial ground-raising deposit was introduced at the eastern end of the quire. This is likely to have overlain earlier features in the chapel sequence, perhaps most notably the foundation for the original, pre-1560 east wall of the building (see Figure 11). As part of the extensive early 17<sup>th</sup> century phase of alterations, a new pavement of Ketton stone and marble was also laid down and the walls of the quire were wainscoted with deal (*ibid.*). Expensive cloths and hangings were also introduced. Given the shallow nature of its foundations, which were cut into the top of the newly introduced made-ground deposit, it is clear that reredos

foundation **F.05** was also associated with this period of widespread reorganisation. Despite the evident expense of these reforms, however, less than ten years later in 1643 much of the interior of the chapel was whitewashed and the altar and organ pipes removed, along with various steps, railings hangings and vestments (*ibid.*, 576). These ‘reformatations’ were made in line with newly imposed puritan restrictions. Nevertheless, the chapel appears to have remained relatively unscathed during the period of the English Civil War and subsequent Protectorate. The following entry was recorded in the Steward’s Accounts of 1644, for example:

“To diuerse souldiers at seuerall times that behaued themselues very deuoutly in the chapell 00.05.00. To some of Major Scot’s souldiers who defended the chapell from the rudenesse of the rest 00.05.00” (Willis & Clark 1886 II, 576).

Following the restoration of Charles II in 1660, many of the chapel’s earlier fixtures and fittings were returned. The organ pipes were reinstalled, although this instrument was subsequently replaced only a few years later in 1694 (*ibid.*, 577). Furthermore, it transpired that the wife of the former Master had “out of great Piety, Zeal, and Devotion, secretly conveyed away [the] Altar, with all its appurtenances, that it might escape those most Sacrilegious hands, which at that time did both in *Cambridge*, and everywhere else, destroy those Sacred Shrines, as Badges of Superstition, and Introductions to Popery” (*ibid.*, 577-8). Once reinstalled, therefore, Trinity College chapel boasted one of only a very small number of surviving 16<sup>th</sup> century altars in Cambridge. But, unfortunately, on the 30<sup>th</sup> of November 1662:

*“Evensong being ended, the Chappel Clerk put up the Candle-ends in a Box; and not being very careful enough in extinguishing them, and placing the Box very irreverently too near the Sanctum Sanctorum, it took fire, which was so prophane as to burn down the Transverse, which was made of the most rich Moasick-work, and the new Erected Altar, with all the costly Furniture wherewith it was Adorned, which were all sacrificed in the flames; Yea, it spared not the Book of Common Prayer, which lay upon it, nor the holy Vestments belonging to the Choristers and Singing-Men, nor the Consecrated Plate, not only that which was then upon the Altar, but a great chest of Chappel Plate also”* (Willis & Clark 1886 II, 577).

The next extensive period of refurbishment commenced in 1706. Although “the history of the work executed is unfortunately most imperfect” (*ibid.*, 580) it is known that the east window was blocked up at this time and the rerdos removed, the altar now being placed close-up against the east wall. Over the next twenty years “the ancient fittings, with the exception of the panelwork in the Antechapel, were all removed and replaced with new woodwork” (*ibid.*, 585). The present organ screen and stalls date from this period, although minor alterations have subsequently been undertaken to both. Significantly, the appearance of the chapel at this time was recorded in a print made in the early 19<sup>th</sup> century (see Figure 12A). This layout survived until 1831-2, when a third major phase of refurbishment was undertaken. As can be seen in Figure 12B, the walls of the chapel were extensively repaired at this time and the roof and floor replaced. The stonework of the east window was also renewed, and the antechapel refurbished (*ibid.*, 586). The only other change of note that has occurred since this time took place in 1870. Requirements of space led to the removal of the organ screen seven feet (2.13m) further to the west, thereby lengthening the quire (*ibid.*, 587-8); it is this work that precipitated the archaeological discoveries previously outlined above (see also White 1894, 298-99). New stained glass windows were also installed in 1870, and a series of wall paintings undertaken (these have subsequently been painted over).

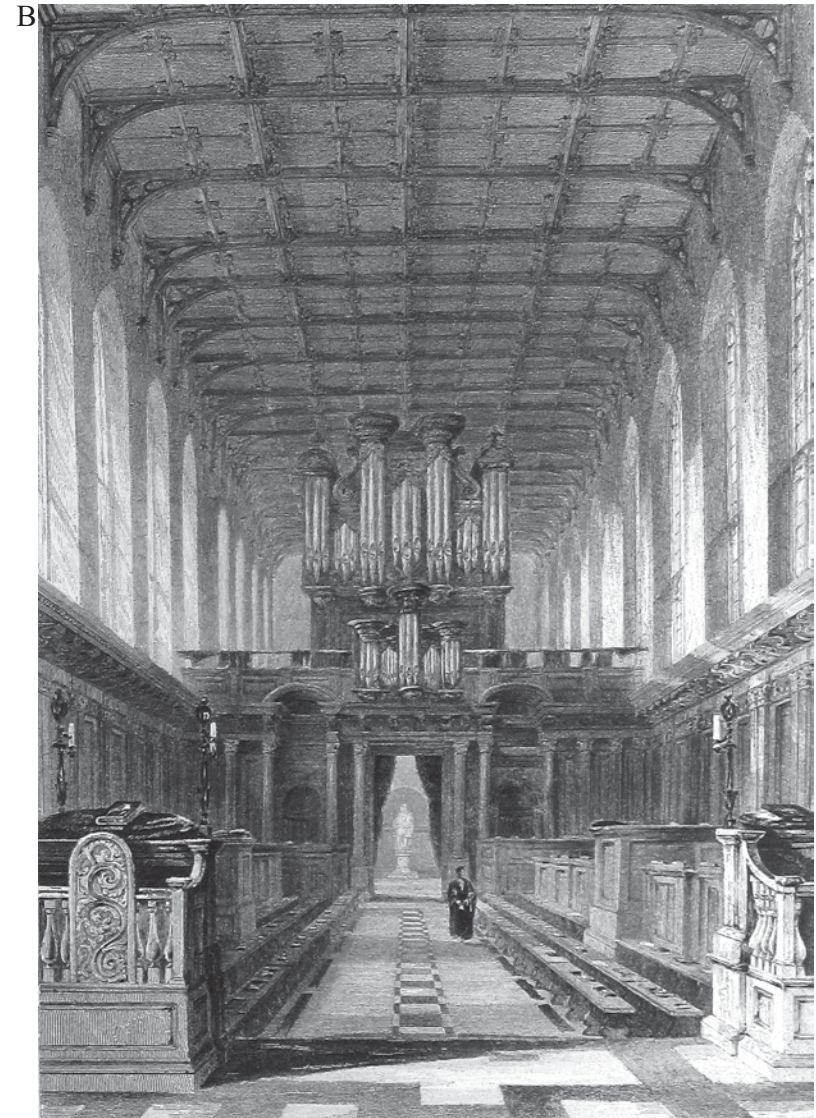


Figure 12. Prints showing the interior of the chapel, facing east, prior to 1832 (A) and, facing west, post 1832 (B) (from Wills and Clark 1886 II, Figures 38 and 39).

## Conclusion

It is unfortunate that, due to the limited depth of the investigation, no evidence relating to the sequence of King's Hall chapel – or any of the additional, pre-collegiate buildings that are known to have once been present in this location – was recovered. Based upon the results of previous nearby investigations, it is probable that natural gravels lie at *c.* 7.5m OD in this location. This suggests that a sequence of archaeological deposits measuring at least 1.5m in depth remained extant beneath the limit of excavation. Nevertheless, despite this limitation, a number of important results pertaining to Trinity College chapel itself were obtained. From what can now be reconstructed of this building's initial, pre-1560 design, for example, it appears that the quire was originally intended to be of relatively modest proportions (measuring *c.* 220m<sup>2</sup>). Following its extension, however, along with the repositioning of the organ screen, it was very nearly doubled in size (to *c.* 430m<sup>2</sup>). This clearly demonstrates the ambitious nature of its final design, and underlines the wealth and status of Trinity College during this period. In addition, the large quantity of surviving historical documentation that is associated with the building allows the changing nature of its internal layout and decoration to be investigated in far greater detail than is typically possible within a contemporary parish church. Allied with such a resource, therefore, this investigation – which represents the most extensive archaeological excavation of a Cambridge college chapel yet undertaken – is of some significance.

### *Acknowledgments*

The project was commissioned by Trinity College, Cambridge, and the fieldwork was monitored by Dan McConnell, Development Control Archaeologist at Cambridgeshire Historic Environment Team (CHET). The project was managed for the CAU by Alison Dickens and the investigation was directed by Richard Newman. It was undertaken in the field with the assistance of Craig Cessford and Selina Davenport. Craig Cessford also kindly commented on the pottery, and read and commented upon a draft of this text. The graphics for the report were produced by Bryan Crossan, and the composite overhead photograph was taken and prepared by Dave Webb.

## Bibliography

- Addyman, P. & Biddle, M. 1965. 'Medieval Cambridge: Recent Finds and Excavations', in *Proceedings of the Cambridge Antiquarian Society* 58, 74-137.
- Alexander, J. & Pullinger, J. 1999. 'Roman Cambridge: Excavations 1954-1980', in *Proceedings of the Cambridge Antiquarian Society* 87, 1-268.
- Alexander, M. 1995. *An Archaeological Assessment at the Bateman Building, Gonville & Caius, Cambridge*. Cambridge Archaeological Unit Report No. 153.
- Alexander, M. 1998. *Trinity Master's Lodge: The Basement Excavations*. Cambridge Archaeological Unit Report No. 239.
- Allen, J. L. & Holt, A. 2010. *Manual of Health and Safety in Field Archaeology 2010*. Federation of Archaeological Managers & Employers.
- Appleby, G. 2010. *Trinity College chapel, Cambridge: an Archaeological Desktop Assessment*. Cambridge Archaeological Unit Report No. 959.
- Brand, P. 2004. 'Stanton, Hervey (c. 1260–1327)', *Oxford Dictionary of National Biography*. Oxford: Oxford University Press [<http://www.oxforddnb.com.ipac.cambridgeshire.gov.uk/view/article/26326>, accessed 12 Nov 2010].
- Bryan, P. 1999. *Cambridge: the shaping of the city*. Cambridge: privately published.
- British Geological Survey. 1976. *Cambridge: Sheet 188*. Southampton: Ordnance Survey.
- Cam, H. M. 1934. 'The Origin of the Borough of Cambridge: A Consideration of Professor Carl Stephenson's Theories', in *Proceedings of the Cambridge Antiquarian Society* 35, 33-53.
- Cam, H. M. 1959. 'The City of Cambridge', in Roach, J. P. C. (ed.) *A History of the County of Cambridge and the Isle of Ely, Volume III: the City and the University of Cambridge*. Oxford: Oxford University Press, 1-149.
- Cessford, C. with Dickens, A. 2005. 'Cambridge Castle Hill: Excavations of Saxon, Medieval and Post-Medieval Deposits, Saxon Execution Site and a Medieval Coinhoard', in *Proceedings of the Cambridge Antiquarian Society* 94, 73-101.
- Cessford, C. with Dickens, A. Dodwell, N. & Reynolds, A. 2007. 'Middle Anglo-Saxon Justice: the Chesterton Lane Corner execution cemetery and related sequence, Cambridge', in *The Archaeological Journal* 164, 197-226.
- Cessford, C. in prep. *Trinity College Library Bookstore, Cambridge: an Archaeological Excavation*. Cambridge Archaeological Unit Report.
- Cobban, A. B. 1969. *The King's Hall within the University of Cambridge in the later Middle Ages*. Cambridge: Cambridge University Press.
- Darby, H. C. & Miller, E. 1948. 'Friaries: Franciscans, Cambridge', in Salzman, L. F. (ed.) *A History of the County of Cambridge and the Isle of Ely, Volume II*. Oxford: Oxford University Press, 276-82.
- Dickens, A. 1996. *Archaeological Excavations at St. John's College, Cambridge*. Cambridge Archaeological Unit Report No. 175.
- Dickens, A. 2001. 'Finds Recovered from beneath the Choir Stalls of King's College, Cambridge', in *Proceedings of the Cambridge Antiquarian Society* 90, 115-26.
- Dickens, A. 2011. *A Method Statement for Archaeological Watching Brief at Trinity College Chapel, Cambridge*. Cambridge Archaeological Unit unpublished document.
- Evans, C. 1991. *Archaeological Investigations at Trinity College Gateway, Cambridge*. Cambridge Archaeological Unit Report No. 34.

- Fairweather, J. (ed.) 2005. *Liber Eliensis: A History of the Isle of Ely from the Seventh Century to the Twelfth, compiled by a Monk of Ely in the Twelfth Century*. Woodbridge: Boydell.
- Gilchrist, R. 2003. 'Dust to Dust: revealing the Reformation dead', in Gaimster, D. & Gilchrist, R. (ed's) *The Archaeology of Reformation, 1480-1580*. Leeds: Society for Post-Medieval Archaeology Monograph No. 1, 399-414.
- Gichrist, R. & Morris, R. 1996. 'Continuity, reaction and revival: church archaeology in England c. 1600-1880', in Blair, J. & Pyrah, C. (ed's) *Church Archaeology: Research Directions for the Future*. York: Council for British Archaeology Research Report No. 104, 112-26.
- Hall, A. 2000. *Investigations in the Great Hall Cellar, Trinity College, Cambridge*. Cambridge Archaeological Unit Report No. 395.
- Hines, J. 1999. 'The Anglo-Saxon Archaeology of the Cambridge Region and the Middle Anglian Kingdom', in *Anglo-Saxon Studies in Archaeology and History* 10, 135-89.
- Leader, D. R. 1988. *A History of the University of Cambridge, Volume I: the University to 1546*. Cambridge: Cambridge University Press.
- Litten, J. 1991. *The English Way of Death: the Common Funeral since 1450*. London: Robert Hale.
- Lobel, M. D. 1975. *The Atlas of Historic Towns, Volume II: Bristol; Cambridge; Coventry; Norwich*. Aldershot: The Scholar Press.
- Loewe, A. 2010. 'Michaelhouse: Hervey de Stanton's Cambridge Foundation', in *Church History and Religious Culture* 90, 579-608.
- Miller, J. 1992. *Archaeological Investigations at the Music Rooms, Trinity College, Cambridge*. Cambridge Archaeological Unit Report No. 59.
- Mitchiner, M. 1988. *Jetons, Medalets & Tokens, Volume I: the Medieval Period and Nuremburg*. London: Seaby.
- Morris, R. K. 1979. 'The development of later Gothic mouldings in England – Part II', in *Architectural History* 22, 1-48.
- Morris, R. K. 2003. 'Monastic Architecture: Destruction and Reconstruction', in Gaimster, D. & Gilchrist, R. (ed's) *The Archaeology of Reformation, 1480-1580*. Leeds: Society for Post-Medieval Archaeology Monograph No. 1, 235-51.
- Neild, R. 2008. *The Financial History of Trinity College, Cambridge*. Cambridge: Granta Editions.
- Newman, R. 2011a. *Trinity College Kitchens, Cambridge: An Archaeological Excavation and Watching Brief*. Cambridge Archaeological Unit Report No. 1000.
- Newman, R. 2011b. *St John's College First Court, Cambridge: an Archaeological Investigation*. Cambridge Archaeological Unit Report No. 1057.
- Newman, R. in prep. *Trinity College Gateway, Cambridge: an Architectural and Archaeological Investigation*. Cambridge Archaeological Unit Report.
- Oswald, A. 1975. *Clay Pipes for the Archaeologist*. British Archaeological Report British Series No. 14.
- Peters, C. 1996. 'The Late Medieval English church: interior and furnishings', in Blair, J. & Pyrah, C. (ed's) *Church Archaeology: Research Directions for the Future*. York: Council for British Archaeology Research Report No. 104, 68-75.



- Reeves, J. & Adams, M. 1993. *The Spitalfields Project. Volume 1: The Archaeology – Across the Styx*. York: Council for British Archaeology Research Report No. 85.
- Regan, R. 1996. *Archaeological Investigations at Angel Court, Trinity College, Cambridge*. Cambridge Archaeological Unit Report No. 171.
- Regan, R. 1997. *Archaeological Excavations at Angel Court, Trinity College, Cambridge*. Cambridge Archaeological Unit Report No. 199.
- Rouse Ball, W. W. 1906. *Trinity College, Cambridge*. London: J.M. Dent.
- Samuel, M. W. 1992. *The Blackfriars & Whitefriars, Ipswich: report of the moulded stone*. Unpublished report for the Planning Department, Suffolk County Council.
- Samuel, M. W. 2001. 'The Architectural Fragments' in Hicks, M. & Hicks A. *St Gregory's Priory: Northgate, Canterbury: Excavations 1988-1991*. Canterbury: The Archaeology of Canterbury 2 (new series), 151-82.
- Samuel, M. W. 2006. *Whitefriars, Norwich: Assessment of the Architectural Fragments from the Excavations 2002-3 – The AF Howland associates site assessment of 2002: an initial statement on the assemblage*. Unpublished report for Cambridgeshire County Council Archaeology Field Unit.
- Samuel, M. W. 2007. 'Structural stonework' in Emery, P. *Norwich Greyfriars: Pre-Conquest Town and Medieval Friary*. East Anglian Archaeology No. 120, 98-102.
- Samuel, M. W. in prep a. 'The Architectural Fragments', in Cessford, C. & Dickens, A. *Grand Arcade, Cambridge: the Excavation of a Medieval Suburb*. East Anglian Archaeology.
- Samuel, M. W. in prep. b. 'Structural Stonework' in Shepherd-Popescu, E. (ed.) *The Excavations of the Norwich Whitefriars*. Oxford: Oxford Archaeology East.
- Samuel, M. W. in prep. c. 'The Architectural Fragments', in Rhodes, M. (ed.) *The Excavations at Torre Abbey*. Devon: Torre Abbey Museum.
- Spargo, P. E. 2005. 'Investigating the site of Newton's laboratory at Trinity College, Cambridge', in *South African Journal of Science* 101, 315-21.
- Spence, C. 1994. *Archaeological Site Manual (3<sup>rd</sup> edition)*. London: MoLAS.
- Stamp, A. E. 1924. *Michaelhouse: Notes on the History of Michaelhouse, Published on the 600<sup>th</sup> Anniversary of the Foundation of the Society by Hervey de Stanton*. Cambridge: privately printed.
- Taylor, A. 1999. *Cambridge: the hidden history*. Stroud: Tempus.
- Trevelyan, G. M. 1943. *Trinity College: an Historical Sketch*. Cambridge: Trinity College.
- Webb, D. 2004. *Fellow's Parlour, Trinity College: An Archaeological Watching Brief on Remodelling Work*. Cambridge Archaeological Unit Report No. 647.
- White, W. 1894. 'On Objects of Antiquarian Interest Recently Dug Up in Trinity College', in *Proceedings of the Cambridge Antiquarian Society* 8, 292-301.
- Willis, R. & Clark, J. W. 1886. *The Architectural History of the University of Cambridge and of the Colleges of Cambridge and Eton (Three Volumes)*. Cambridge: Cambridge University Press.

## Appendix: Master's of Trinity College, Cambridge

Those names highlighted in italics within the following table potentially correspond to the individual interred in burial **F.06**.

Name	Start of service	End of Service
John Redman	1546	1551
William Bill	1551	1553
John Christopherson	1553	1558
William Bill	1558	1561
Robert Beaumont	1561	1567
John Whitgift	1567	1577
John Still	1577	1593
Thomas Nevile	1593	1615
John Richardson	1615	1625
Leonard Mawe	1625	1629
Samuel Brooke	1629	1631
Thomas Comber	1631	1645
Thomas Hill	1645	1653
John Arrowsmith	1653	1659
<i>John Wilkins</i>	<i>1659</i>	<i>1660</i>
<i>Henry Ferne</i>	<i>1660</i>	<i>1662</i>
<i>John Pearson</i>	<i>1662</i>	<i>1672</i>
<i>Isaac Barrow</i>	<i>1672</i>	<i>1677</i>
<i>John North</i>	<i>1677</i>	<i>1683</i>
John Montagu	1683	1699
Richard Bentley	1700	1742
Robert Smith	1742	1768
John Hinchcliffe	1768	1789
Thomas Postlethwaite	1789	1798
William Lord Mansel	1798	1820
Christopher Wordsworth	1820	1841
William Whewell	1841	1866
William Hepworth Thompson	1866	1886
Henry Montagu Butler	1886	1918
Sir Joseph John (J. J.) Thomson	1918	1940
George Macaulay Trevelyan	1940	1951
The Lord Adrian	1951	1965
The Lord Butler of Saffron Walden	1965	1978
Sir Alan Hodgkin	1978	1984
Sir Andrew Huxley	1984	1990
Sir Michael Atiyah	1990	1997
Amartya Sen	1998	2004
The Lord Rees of Ludlow	2004	-

## Oasis Form

<b>OASIS ID: cambridg3-117983</b>	
<b>Project Details</b>	
Project name	Trinity College Chapel, Cambridge
Short description of the project	An archaeological investigation was undertaken within the quire of Trinity College chapel, Cambridge, in advance of the introduction of a new underfloor heating system. Although restricted in depth, with the result that no pre-16th century deposits were investigated, a number of results pertaining to the original layout of the chapel were obtained. Firstly, it was determined that changes to the initial design of the structure that were undertaken in c. 1560 had effectively doubled the size of the quire. Most probably associated with this period were two substantial foundations that appear to represent the initial, abandoned location of the choir screen that separates the ante-chapel from the quire. Remnants of the chapel's original tiled floor surface were also encountered, along with a fragment of the initial 16th century stall foundations. Further to the east, the footings of the 17th century rerdos wall were also identified. In addition, a minimum of three burials were present within the investigated area, one of which contained an encoffined inhumation dating to c. 1660-80. These results allow the original 16th century layout of the quire to be reconstructed.
Project dates	Start: 12-04-2011 End: 03-05-2011
Previous/future work	No / Not known
Any associated project reference codes	ECB 3581 - HER event no.
Any associated project reference codes	TCC 11 - Sitecode
Type of project	Field evaluation
Site status	Listed Building
Current Land use	Other 2 - In use as a building
Monument type	BURIALS Post Medieval
Monument type	FOUNDATIONS Post Medieval
Significant Finds	MOULDED STONE Medieval
Significant Finds	JETTON Post Medieval
Methods & techniques	'Targeted Trenches'
Development type	Building refurbishment/repairs/restoration
Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	After full determination (eg. As a condition)
<b>Project Location</b>	
Country	England
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Trinity College Chapel, Cambridge
Postcode	CB2 1TQ

Study area	203.00 Square metres
Site coordinates	TL 4477 5869 52.2069659302 0.118905697210 52 12 25 N 000 07 08 E Point
Height OD / Depth	Min: 7.50m Max: 7.50m
<b>Project Creators</b>	
Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Alison Dickens
Project director/manager	Alison Dickens
Project supervisor	Richard Newman
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Trinity College, Cambridge
<b>Project Archives</b>	
Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	TCC 11
Physical Contents	'Ceramics','Metal','Worked stone/lithics'
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	TCC 11
Digital Contents	'Ceramics','Metal','Worked stone/lithics'
Digital Media available	'Spreadsheets','Text'
Paper Archive recipient	Cambridge Archaeological Unit
Paper Archive ID	TCC 11
Paper Contents	'other'
Paper Media available	'Context sheet','Photograph','Plan','Section'
<b>Project Bibliography</b>	
Publication type	Grey literature (unpublished document/manuscript)
Title	Trinity College Chapel, Cambridge
Author(s)/Editor(s)	Newman, R.
Other bibliographic details	Cambridge Archaeological Unit Report No. 1058
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 34 pages long, with 12 illustrations.
URL	<a href="http://www.oasis.ac.uk">http://www.oasis.ac.uk</a>
Entered by	Richard Newman (rn276@cam.ac.uk)
Entered on	23 January 2012