

The Old Schools, University of Cambridge Cambridge

An Archaeological Investigation



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Illustrations by Bryan Crossan

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Summary

An archaeological investigation was undertaken at the Old Schools, University of Cambridge, Cambridge. Here, beneath the suspended timber floor of one of the ground floor offices, two stone-built wall footings were identified – both of which were medieval in date. The first originally comprised part of the north wall of the southern range of King's College Old Court, which was commenced in 1441. Well-built and substantial in scale, the surviving remnant reveals that the ground floor of this range was partially cellared. It was demolished in 1835. The second footing may also have been associated with the earliest phase of King's College, or might alternatively represent a vestige of an earlier, pre-collegiate structure. It was almost entirely rebuilt during the 18th century.

- Introduction -

An archaeological investigation was conducted by the Cambridge Archaeological Unit (CAU) within the Old Schools of the University of Cambridge between the 10th and the 12th of November 2014. The building complex within which this work occurred, which houses the central administrative offices of the University, is located in the heart of the historic core of the town (being centred on TL 4474 5846). The investigated area itself was situated inside the southeast corner of the southern range of the westernmost of the Schools' two courtyards, West Court (Figure 1). Here, the suspended timber floor of one of the rooms had been removed, revealing the remnants of two substantial masonry footings (Figures 2-4). Although no formal archaeological brief was issued, the CAU was generously invited by the University of Cambridge to record the exposed remains.

Landscape and Geology

The Old Schools building complex is quadrangular in form, being arranged around two adjacent courtyards (the second of which, West Court, originally comprised the Old Court of King's College until ownership was transferred to the University in 1829). The irregular layout of Schools' constituent structures is the result of an extended and piecemeal developmental history, spanning the 14th to early 20th centuries (see RCHM(E) 1959 volume I, 11-18; Evans & Pollard 1999; Newman & Evans 2011). Geologically, the site – which is located on the edge of the former alluvial floodplain of the River Cam – is situated upon second terrace river gravels overlying Gault clay (British Geological Survey, sheet 188). The present floor height of the room within which the investigation took place is 9.11m OD, although this is somewhat higher than the external ground surface (which lies at 8.21m OD in West Court and 8.71m OD in Cobble Court). Natural gravels were determined to lie at 7.03m OD via augering.

Methodology

The modern suspended timber floor had been removed prior to the commencement of the investigation. Beneath this, the remaining joists were supported upon a series of brick-built piers; these in turn rested upon a substantial concrete footing that extended across the majority of the room's interior. Also exposed were the remnants of two substantial masonry foundations of medieval date. Both of the latter were cleaned by hand and recorded using the CAU-modified version of the MoLAS system (Spence 1994). Base plans were drawn at a scale of 1:20, whilst elevations were drawn at a scale of 1:10. A digital photographic archive was also compiled. 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 the investigation is **OSM14** and the event number is **ECB 4316**.

Historical and Archaeological Background

The historical and archaeological background of the Old Schools site has been discussed in two previous publications (Evans & Pollard 1999; Newman & Evans 2011). Consequently, only a brief summary is presented here. To date, very limited evidence of prehistoric and Roman activity has been identified in the immediate area. Indeed, up until the mid-10th century Cambridge remained only an “economically

viable backwater” (Hines 1999, 136). Following this date, however, it emerged as a significant urban centre. By the late 10th century a mint had been established (Lobel 1975, 3; Haslam 1984, 21) and the town was being linked to a group of important trading centres including Norwich, Thetford and Ipswich (Cam 1934, 43). This emphasises the central role played by river trade in Cambridge’s rapid economic growth. Occupation was initially restricted to the Castle Hill area, to the north of the Cam, but expanded onto the southern bank of the river during the 10th century. Along the line of Trumpington Street/Kings Parade, for example – the route of the medieval High Street – the presence of a number of pre-Conquest churches indicates that a roadway was well-established by the first half of the 11th century (Addyman & Biddle 1965, 99; Haslam 1984, 21; Brooke 1985). Parallel to the High Street, a second road was also laid out. Known as Milne Street, this was initially a significant focus of domestic settlement but its route has since been largely obliterated (although it survives in part as Trinity Lane).

Between the High Street and Milne Street, respectively the eastern and western boundaries of the Old Schools site, a series of intensively-occupied medieval plots were established (Willis & Clark 1886 volume I, 317-21; Willis & Clark 1886 volume III, 1-9). These consisted of a variety of tenements and *messuages* (larger properties, potentially containing a number of structures). The excavation of a lift shaft located within the former Divinity School in 2009 presented an opportunity to investigate a portion of this occupational sequence (Newman & Evans 2011). Here, the earliest evidence of settlement was 11th century in date. An initial timber-framed building had been succeeded by a series of pits; domestic occupation then continued until the late 14th century, when the site was cleared to allow construction of the nascent Old Schools complex. The School of Theology – or Divinity School – was the first element to be completed, c. 1400 (Willis & Clark 1886 volume III, 10). Originally a detached building accessed via an external staircase, the additional wings of the Old Schools quadrangle – which housed the remaining ‘superior’ faculties, including those of Canon Law, Civil Law and Philosophy – were gradually appended in a piecemeal fashion until c. 1470 (see RCHM(E) 1959 volume I, 11-18; Evans & Pollard 1999). Concomitant with the later stages of this sequence, building works also occurred in the area of present-day West Court. Here, in 1441, construction commenced upon the original, small and awkward site of King’s College (soon to be known as Old Court). Although initially begun on a grand-scale, by 1446 a much larger, adjoining site had been acquired to house the main college buildings and the remainder of Old Court was therefore completed in a relatively cursory manner.

Old Court remained part of King’s College until 1828. In 1829, however, the buildings were purchased by the University in order to provide a site for a new library. Extensive demolition occurred in 1835, although no consensus could be reached upon the form that the replacement structure should take (Willis & Clark 1886 volume III, 97-124). After a prolonged hiatus, the present south range, within which the most recent investigation took place, was constructed to the design of George Gilbert Scott in 1864-68. The remaining ranges of Old Court were then replaced by complementary structures, replicating the same overall design, during the later 19th century; only the lower portion of the original gateway, and its flanking stair turrets, were retained from the preceding medieval phase. Finally, the buildings of West Court, along with those of Cobble Court, were converted into administrative offices in 1935 when the University Library was transferred into new, purpose-built accommodation. Since

then, the various rooms have changed function on a number of occasions but the overall impact upon the standing buildings' fabric has been negligible.

- Results -

Three results were obtained. The first pertained to the sequence of deposits which lay beneath the concrete subfloor associated with the present standing building. The second comprised the identification of a north-south aligned masonry footing that had been incorporated into room's extant east wall, whilst the third comprised the identification of an additional east-west aligned masonry footing that had been sealed beneath the suspended timber floor.

Firstly, across the majority of the room a *c.* 0.18m thick layer of concrete had been inserted in 1864-68 (when the present standing building was constructed). This material acted as the foundation for a series of brick-built piers that in turn supported the suspended timber floor. Unfortunately, the presence of this concrete severely restricted the potential for an in-depth investigation of the earliest strata at the site. Nevertheless, although it was not possible to excavate a test pit, the presence of a later service trench – which had cut through the concrete onto the upper surface of the deposit beneath – did permit the insertion of an auger (Figure 4). By this means, natural gravels were determined to lie at 7.03m OD; a result that is closely comparable with the depth of 7.43m OD which was determined for this same horizon within the liftshaft excavated inside the Divinity School in 2009 (Newman & Evans 2011). Above the gravels, a series of archaeological deposits were encountered but no dating evidence was recovered.

Overlying the natural second terrace gravels, the lowest extant deposit comprised mid orangey brown sandy silt with occasional to frequent gravel inclusions (0.29m thick). Above this lay a deposit of mid brown sandy silt with frequent gravel inclusions (0.28m thick), which was in turn overlain by a deposit of mid brown silt with occasional gravels (0.1m thick). The final elements in the sequence comprised a mixed deposit of off-white clay, mid grey clay and mid brownish grey silty clay (0.18m thick) and a deposit of mid brown silt with frequent gravels (0.1m thick). Deposits such as these are consistent with the presence of a series of layers and features in an intercutting sequence.

At the eastern end of the room, a substantial north-south aligned masonry footing was present (**F.02**; Figure 3). This was stepped in form; indeed, its initially below-ground, trench-built footing had been partially exposed by reduction works conducted in 1864-68. That this portion of the feature was originally situated below as opposed to above ground is demonstrated by the protruding, irregular nature of the mortar with which it was bonded. The uppermost portion of the step lay at a height of 8.75m OD. Although truncated in places, as well as being partially obscured by the footing for a 19th century fireplace, **F.02** was nevertheless relatively well-preserved. The only feature of architectural note to be identified along its exposed length comprised a regular, flat-bottomed recess or void (Figure 3). While this could represent nothing more than damage, the void's regularity, size and vertical position are all broadly consistent with the opening for a doorway. The base of the void lay at 9.02m OD (although this could indicate the lowest position of any dressed masonry that had subsequently been robbed rather than an *in situ* threshold). Above the room's present floor height (9.11m OD), this wall appears to have been almost entirely rebuilt in brick during the 18th century.

Footing **F.02** was composed of flat-laid split oolitic limestone fragments bonded with dense off-white lime plaster. Laid in regular courses, these blocks formed a rough but highly effective structural material. A small number of clunch and tile fragments were also present within the build. The surviving remnant of this footing measured 5.9m+ in length by 0.2m+ in width and 0.82m+ in depth.

The second of the two footings, east-west aligned **F.01**, was also the most substantial (Figure 4; see also the cover of this report). Unlike **F.02**, however, it no longer provided support for an extant wall but instead lay partway inside the room. Despite this, it was partially obscured and could not be recorded in its entirety. To the north, a series of heating pipes had been introduced that partially overlay it, while to the east and west a temporary timber walkway had been established that severely restricted access. Nevertheless, several important details could be observed. Firstly, it was immediately apparent that the inner, south-facing aspect of **F.01** had been very finely finished before being coated in render/plaster (Figure 4). This indicates that it originally comprised the interior face of a room. Secondly, an irregular scar was present partway along the footing's length that reveals the presence of a north-south aligned return; albeit one of less substantial dimensions (Figure 2). Additional details were also revealed when the backfill of a pipe-trench which had truncated **F.01** was removed. This work exposed a partial elevation of the foundation (Figure 4) and demonstrated that – much like **F.02** – it, too, incorporated a lower stepped footing.

Footing **F.01** was composed of an outer skin of ashlar oolitic limestone blocks that retained an inner clunch and limestone rubble core (Figure 4). Very well-constructed – especially in comparison to **F.02** – these elements were bonded with tenacious off-white lime mortar. In addition, a stepped footing was also identified. Once again, this portion of the foundation appears most likely to have been trench-built. In contrast to the footing of **F.02**, however, it lay significantly lower, at 8.13m OD. This evidence, when combined with the presence of plaster/render on the wall's inner face, strongly implies that the interior of the structure was partially cellared. The original floor height probably lay at c. 8.20m OD; the highest surviving remnant of the footing lay at 8.90m OD. The visible portion of the feature measured 6.1m+ in length by 0.88m+ in width and 0.91m+ in depth. Its original width is likely to be c. 1.2m, with an additional 0.34m wide footing to the south (and potentially also to the north).

- Discussion -

The two wall footings identified during the course of this investigation reveal important information pertaining to two separate medieval buildings. In the first instance, **F.01** comprised part of the north wall of the southern range of King's College's Old Court. This was one of the first elements of the new institution to have been constructed following the laying of a foundation stone for the new gateway on the 2nd of April 1441 (Willis & Clark 1886 volume I, 321). It was also the only range to have been completed prior to the acquisition of a new, larger site for the college precinct and the consequent curtailing of much of the planned building work. The original design was one of some pretension, as is revealed by the surviving pictorial and cartographic sources (*e.g.* Figure 5). Indeed, it has been stated that the south range itself was “manifestly designed by an architect of first-rate ability, and in style, as in materials and workmanship, [was] greatly superior to any previous work in the University” (Willis & Clark 1886 I, 326). Three storeys in height – and thus comprising one of the first college buildings in Cambridge to have been constructed on a such a substantial scale – the range was faced with expensive dressed limestone blocks.

A plan of Old Court drawn *c.* 1635 (Figure 5) reveals that the structure was primarily accessed via two external stair turrets, whilst on the ground floor there were four large chambers. Although not a precise, accurately measured plan (as it rectifies the partially oblique alignments of many of the Old School's constituent structures in order to produce a simplified, rectilinear layout) it nevertheless agrees very closely with David Loggan's detailed depiction of the interior of Old Court of 1688 (Figure 5). Here, it can be seen that the range was very handsome in appearance, with well-ordered fenestration and an elaborate moulded string course (although the latter did not extend fully to the east, where the surmounting crenellations were also absent – an indication that even here the initial design was not entirely realised). Contrastingly, the poorly finished nature of the gateway's upper storeys can be clearly discerned, whilst an arch located in the southeastern corner of the court appears to have provided access to King's College Chapel via a narrow alleyway (the latter being labelled 'Cow Lane' on the 1635 plan).

The archaeological evidence recovered during the recent investigation sheds additional light upon the form of the south range. Firstly, it is apparent that the surface height of Cow Lane – and thus, by extension, of Old Court itself – lay at or a little way above the present floor height within the extant room (9.11m OD). This is indicated by the surviving extent of **F.01**, as the footing must originally have lain below ground level across the entrance to Cow Lane, as well as by the sill height of the putative doorway identified **F.02**. Nevertheless, within the interior of the range the lower ground floor lay up to a metre below the contemporary external ground level. During the medieval period the most common reason for inserting a partial basement in this manner was to facilitate the incorporation of additional strengthening elements into the structure; elements such as a vault, or undercroft, for example. In this particular instance, however, the presence of a vault cannot be confirmed as no responds were identified (although it is possible that the ribs might have been stopped well above floor level). With the exception of **F.01**, the majority of the south range's footings appear to have been destroyed in 1864 when work upon the present standing structure commenced. It is therefore unlikely that any further significant structural elements remain to be discovered. The reduction of West Court to its present surface height of 8.21m OD most probably occurred during the 1930s, as an elevation drawing of *c.* 1880 records the courtyard as then lying close to its original medieval level (Willis & Clark 1886 volume III, 87).

Much more enigmatic than **F.01** was **F.02**. Of markedly cruder construction – it was composed of coursed Barnack limestone slabs, a material that had probably been quarried to exhaustion by the close of the 15th century (Alexander 1995, 115-16) – this second footing is very likely to have been earlier than, or at the very least contemporary with, the establishment of the south range of Old Court. This is because the height of its lower, stepped footing – that portion of the wall which would have lain below contemporary ground level – was *c.* 0.40m beneath the probable surface of Cow Lane. Such a divergence in level indicates that **F.02** is likely to have been constructed prior to an increase in the surrounding ground height. Consequently, it is also likely to have predated the construction of the south range of Cobble Court in 1457-70 (Willis & Clark 1886 volume III, 12-14). The latter building initially housed the schools of Civil Law and Philosophy on its ground floor and the university library above; although the library was subsequently to expand into the majority of the complex. Intriguingly, the presence of a pre-existing structure may go some way

towards explaining the oddly ‘foreshortened’ layout of the School’s south range. This is because, somewhat unusually, it did not extend for the same distance as the opposing north range but instead terminated at the point of confluence with the eastern wall of the west range – thereby leaving an apparent gap or void. It now appears that the reason for this decision may well have pertained to the retention of an extant structure that already adjoined the west range’s southern wall.

The nature of the building of which **F.02** originally comprised a part is unclear. If this structure predated the establishment of King’s College, as appears entirely possible, then it may either have functioned as a domestic dwelling or an institutional structure whose role was later superseded as the Schools complex gradually expanded. Alternatively, however, it may have originated as part of the building works associated with the establishment of Old Court itself during the early 1440s. The same flat-laid rag stone construction technique was employed in both the earliest Schools buildings (such as the Divinity School) as well as the surviving interior portion of Old Court’s original gateway (see Figure 6), thereby precluding a precise determination on architectural grounds. The first historical reference to a structure in this location dates to the 18th century, when the above-ground portion of the building was rebuilt as a Porter’s Lodge for King’s College (Willis & Clark 1886 volume I, 318). This may indicate that the preceding building had already been in the college’s possession for some time, although it is equally plausible that it had been purchased recently with the explicit intention of its conversion. Although the precise origins of the footing remain unclear, there nevertheless remains the intriguing possibility that **F.02** represents the oldest extant structural remnant yet to have been identified at the Old Schools site.

Acknowledgments

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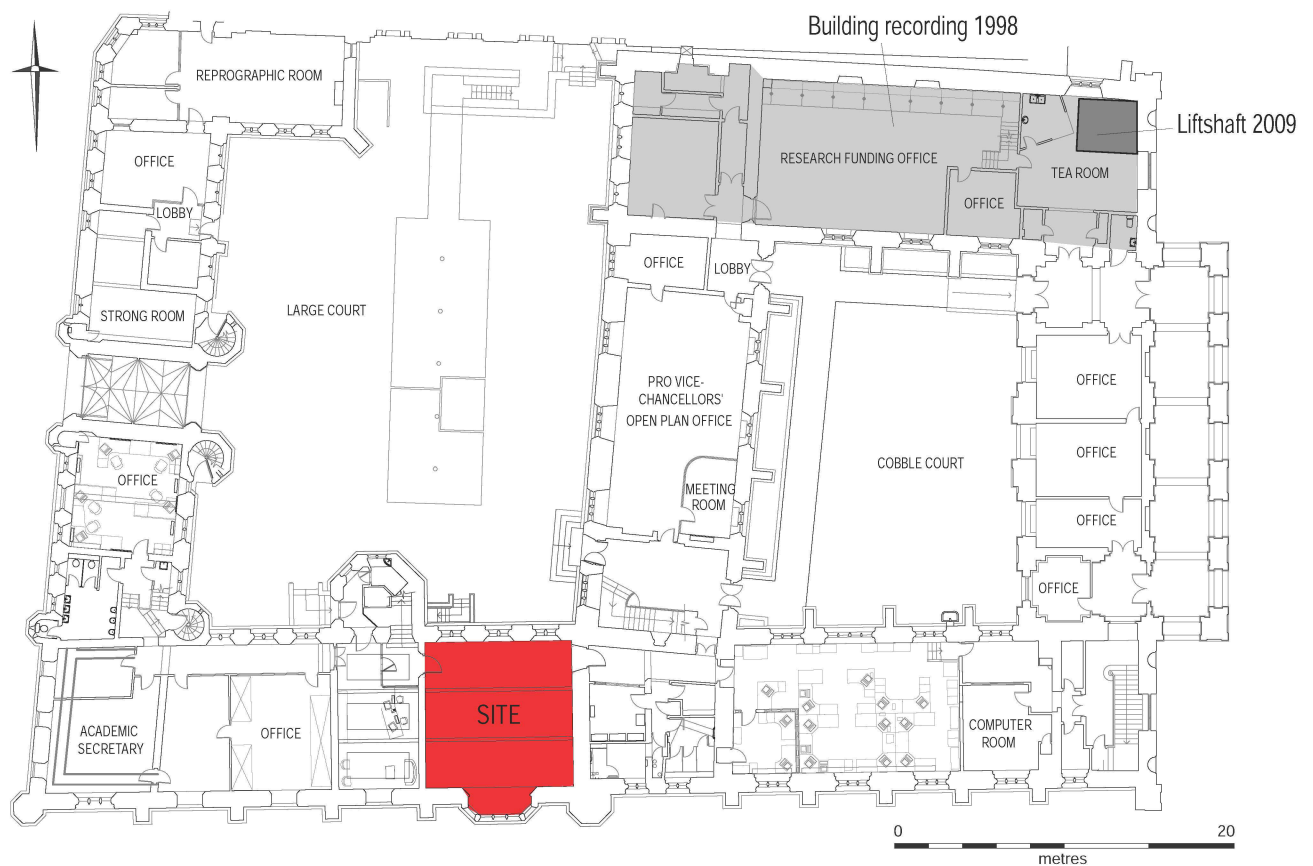
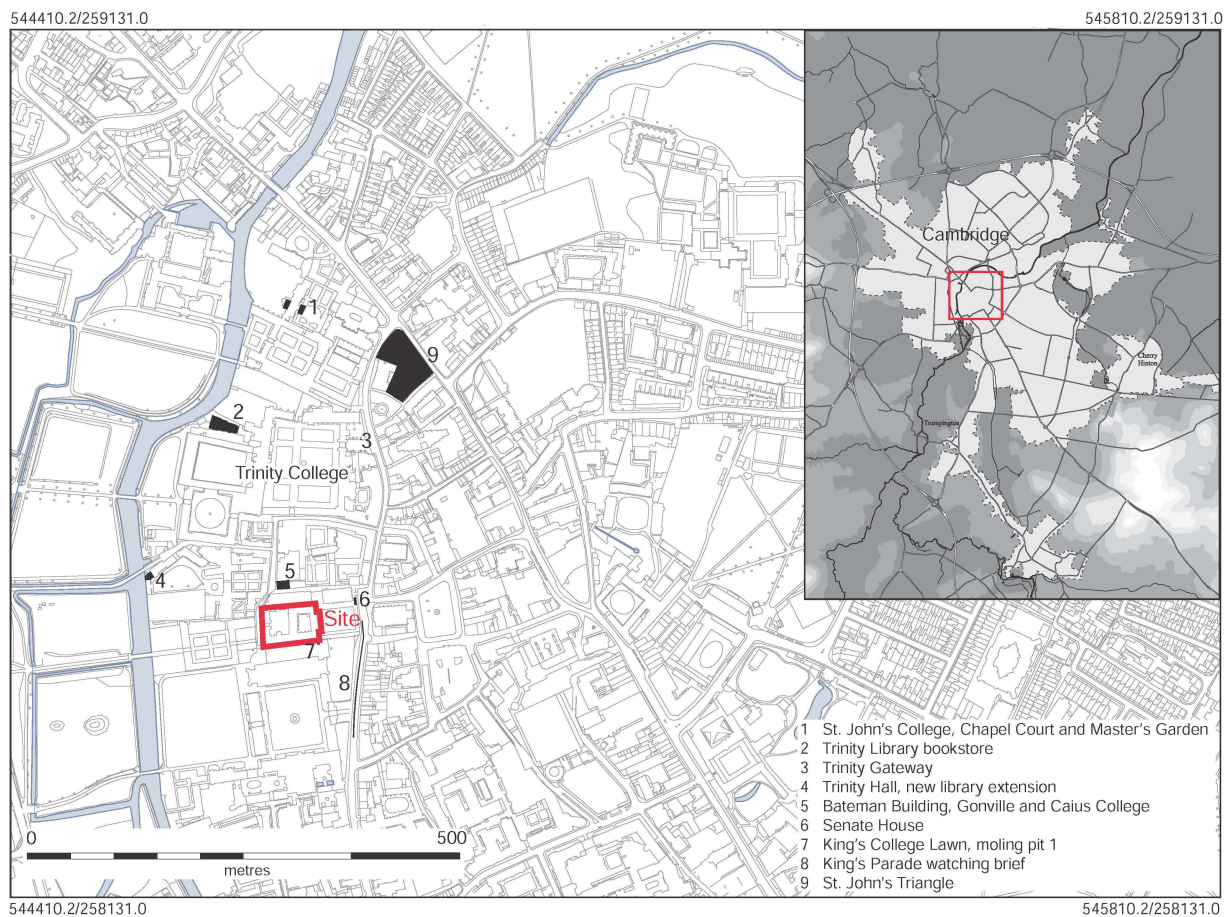


Figure 1. Site location showing the Old Schools complex in relation to Cambridge (top), and the present trench in relation to previous investigations (bottom).

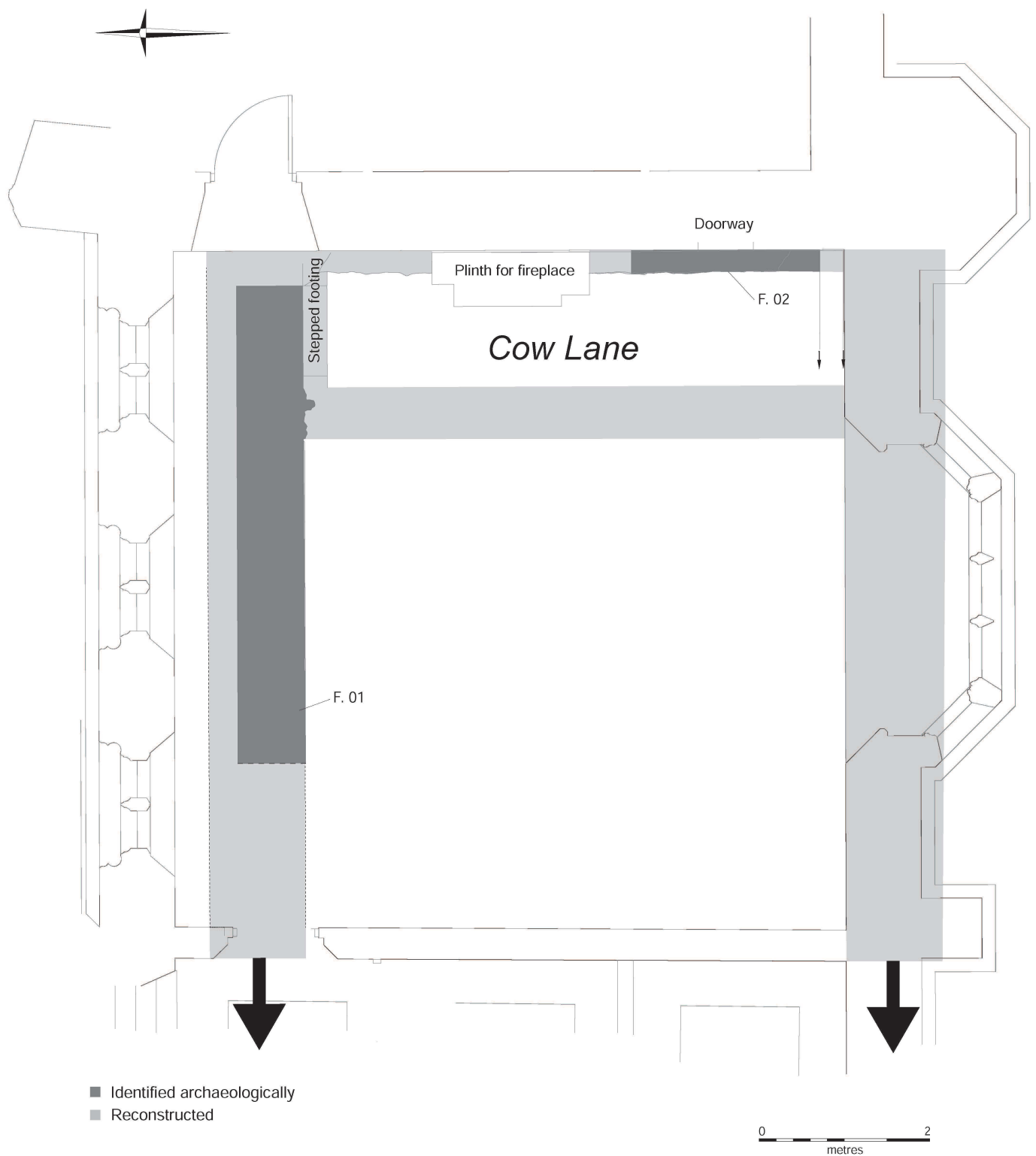


Figure 2. Plan showing the walls of King's College Old Courts' south range (F.01) in relation to the present standing building



Figure 3. Elevation of footing F.02, facing east, showing the lower trench-built step and putative base of doorway



Figure 4. Elevation of footing F.01 (top) and north facing photograph of F.01's rendered interior face (bottom)

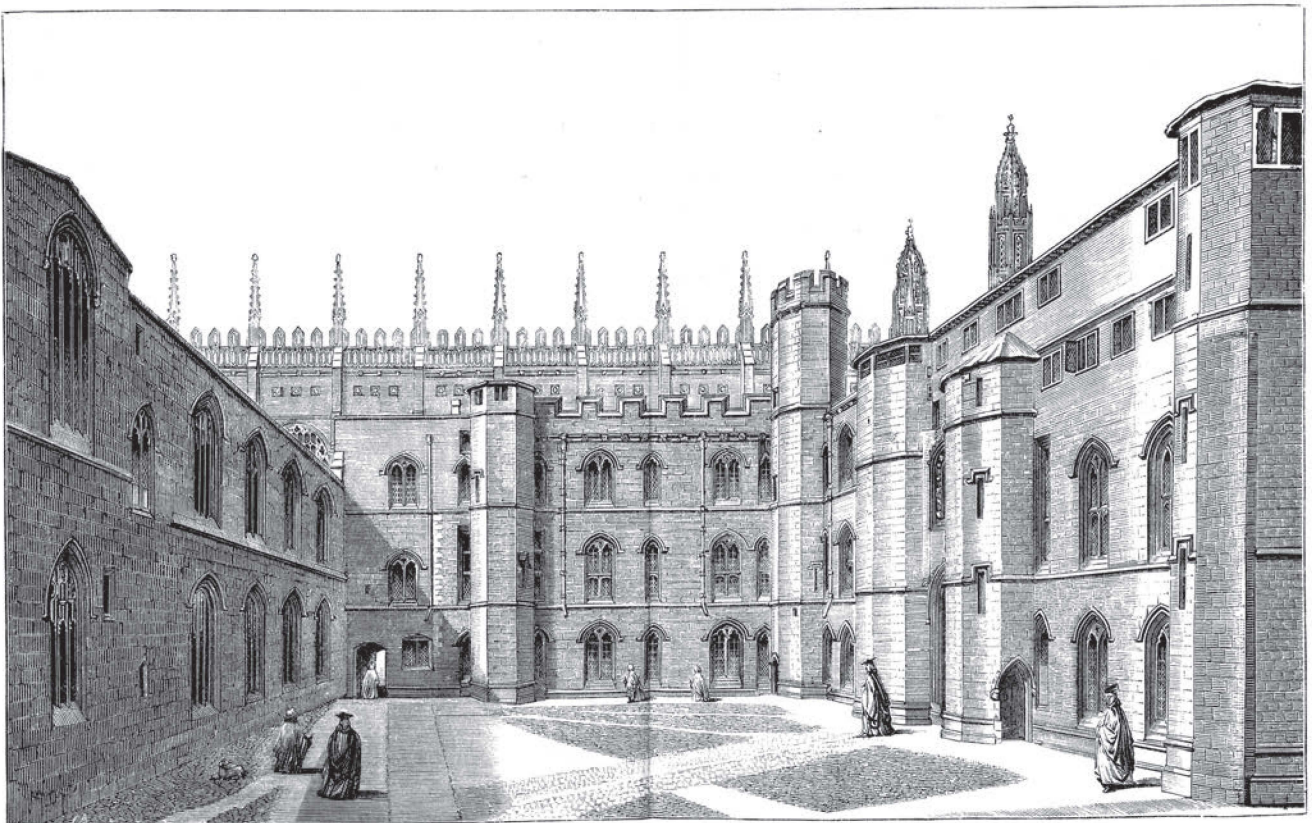
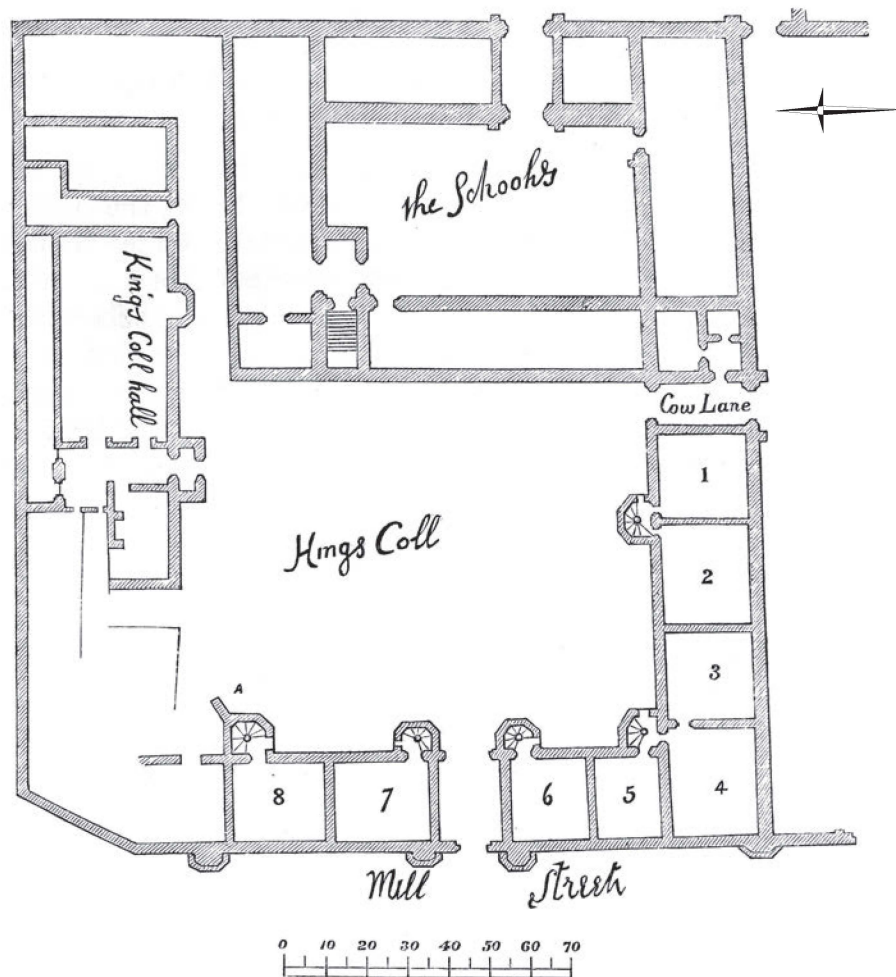


Figure 5. Plan of Old Schools of 1635 (top) and David Logan's south facing view across Old Court of 1688 (bottom).



Figure 6. Interior wall of retained Old Court gateway, facing north, showing head of relict doorway

- Oasis Form -

OASIS ID: cambridg3-195694	
Project Details	
Project name	The Old Schools, University of Cambridge, Cambridge
Short description of the project	An archaeological investigation was undertaken at the Old Schools, University of Cambridge, Cambridge. Here, beneath the suspended timber floor of one of the ground floor offices, two stone-built wall footings were identified - both of which were medieval in date. The first originally comprised part of the north wall of the southern range of King's College Old Court, which was commenced in 1441. Well-built and substantial in scale, the surviving remnant reveals that the ground floor of this range was partially cellared. The second footing may also have been associated with the earliest phase of King's College, or might alternatively represent a vestige of an earlier, pre-collegiate structure.
Project dates	Start: 10-11-2014 End: 12-11-2014
Previous/future work	Yes / Not known
Any associated project reference codes	ECB 4316 - HER event no.
Any associated project reference codes	OSM14 - Sitecode
Type of project	Recording project
Site status	Listed Building
Current Land use	Industry and Commerce 2 - Offices
Monument type	FOUNDATIONS Medieval
Significant Finds	N/A None
Investigation type	"Field observation", "Watching Brief"
Prompt	Voluntary/self-interest
Project Location	
Country	England
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE The Old Schools, University of Cambridge, Cambridge
Postcode	CB2 1TN
Study area	80.00 Square metres
Site coordinates	TL 4474 5846 52.204907223 0.118368606345 52 12 17 N 000 07 06 E Point
Height OD / Depth	Min: 7.03m Max: 7.03m
Project Creators	
Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Self (i.e. landowner, developer, etc.)
Project design originator	Christopher Evans
Project	Chris Evans

director/manager	
Project supervisor	Richard Newman
Type of sponsor/funding body	Developer
Name of sponsor/funding body	University of Cambridge
Project Archives	
Physical Archive Exists?	No
Digital Archive recipient	Cambridgeshire County Archaeology Store
Digital Archive ID	OSM14
Digital Contents	"other"
Digital Media available	"Images raster / digital photography"
Paper Archive recipient	Cambridgeshire County Archaeology Store
Paper Archive ID	OSM14
Paper Contents	"other"
Paper Media available	"Context sheet", "Photograph", "Plan", "Section"
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