
Proceedings of the Cambridge Antiquarian Society

(incorporating the Cambs and Hunts Archaeological Society)

Volume LXXXVI
for 1997



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Editor Alison Taylor

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Editorial

My first task in this volume is to thank and pay tribute to the retiring editor, Audrey Meaney. She took the Proceedings through several difficult years, from 1993–7, coping in particular with new publishing technology and increasingly complex archaeological reports. In this time she made tremendous efforts to catch up with annual publication, so that, by September 1998, we are only nine months behind the date for which the issue is intended. This is despite the size and professional standards required for the only vehicle for regular reporting of most archaeological discoveries to a wide local and international readership in Cambridgeshire, as well as publishing historical and other antiquarian research.

1996–7 once again had a well-filled programme for the Society, with two conferences, on Fenland Waterways in March and on recent archaeological excavations in November. There was an impressive programme of lectures, headed by Barry Cunliffe and our own ex-President Christopher Taylor, and some enjoyable excursions. It was also a year when the Council, and in particular its President and Secretary, were involved in efforts to protect local services for archives, archaeology and local studies. Sadly, just as this volume was being prepared for the press, we heard of the deaths of two of our stalwart members and supporters. Nesta Rooke, for many years Sites and Monuments Officer for Cambridgeshire, and Brian Charge, Director of the Haverhill and District Archaeological Group, died in July 1998.

This volume contains a few minor changes in design, principally with the intention of making better use of expensive space, and it follows the usual format except for the revival, after several years, of a Reviews section. As a first attempt it perhaps appears rather incestuous, but I hope that in future we will receive a wider range of books, and I would also welcome offers of suitable reviews by other writers. This is an important way to bring works that might easily be missed to the attention of members, and to entice them to read reports which are often more interesting than their titles suggest.

Alison Taylor

Cloistered Communities: Archaeological and Architectural Investigations in Jesus College, Cambridge, 1988–97

Christopher Evans, Alison Dickens and D.A.H. Richmond

With contributions by C. Begg, K. Gdaniec, J. Miller and J.M. Renfrew

Summary

Archaeological and architectural recording within Jesus College during large-scale restoration work has shown that the surviving fabric of the preceding nunnery of St Radegund's is more limited than previously thought; however, the remains of the original 15th century college are extensive. The character of the town's urban and suburban monasteries are also discussed in the light of this new information. Excavations in a cemetery within the Master's Garden, the Jesus Lane frontage of the new library site, and the east range of Cloister Court are described. The latter, occurring within the interior of the chapter house and vestry/sacristy, revealed that the sequence of nunnery building is more complex than has generally been anticipated.

Introduction

Eight campaigns of College-sponsored architectural and archaeological recording are reported. All were variously development-led; whilst providing opportunities for broader academic study these have not been research initiatives. The first is Hugh Richmond's analysis of the fabric of the east range of Cloister Court (I); otherwise the investigations have been undertaken by the Cambridge Archaeological Unit (CAU) of the University of Cambridge:

- II The 1995 Chapter House Investigations (Evans 1995a; 1995c)
- III Recording within the Halls and Kitchen Range, including a large foundation exposed on the north side of the halls, probably the original stair tower (Dickens & Evans 1995)
- IV The 1997 Gatehouse and School Range recording (Dickens 1998)
- V The Master's Lodge viewing niche (Begg in Dickens 1998)
- VI The 1992/93 New Library Site Excavations (Evans 1992; 1995b)
- VII Topsoil sampling and excavation of a small sondage within First Court in conjunction with the 1995 renovation programme (Dickens & Evans 1995)
- VIII The 1993 Master's Garden Investigations – the parishioner's cemetery (Gdaniec & Miller 1993).

Progressing from the purely architectural to the exclusively archaeological, the ordering of sections is according to investigative scale and interpretative scope. A level of synthetic presentation is attempted which avoids, wherever possible, unwieldy descriptive detail and much therefore is omitted. The various CAU reports, including specialist study, are available in public archives (County SMR; Cambridgeshire Collection). The Unit's recording system has been employed throughout and, in the course of the work, some 240 contexts have been assigned to describe individual stratigraphic 'acts' (e.g. *a cut, a fill or a masonry build*; [#]). To facilitate presentation these are only included within the text where absolutely necessary (e.g. the explanation of complex elevations). Beyond this, in terms of 'soil' archaeology (*vs.* architectural recording), feature numbers have been employed to denote interrelated phenomena (e.g. a ditch cut *and* its fills); sixty have been thus far assigned (F. #).

Whilst not resulting in a radical re-appraisal of the college's history, the work provides detailed insights into its sequence (especially the scale of Alcock's building and the limited extent of nunnery fabric). Throughout we have been aware of the grounds' extraordinary research potential, particularly for gender studies and the archaeology of 'cloistered communities'. The circumstances of a medieval nunnery superceded by an early college – effectively, a female circumscribed community replaced by one predominantly male – is possibly unique (the gender-exclusivity of each is, of course, compromised by their respective servants and tenants). Yet it is telling of the character of these institutions that such 'headline' concerns largely escape detection. Maintenance of room/social space determines that deposition is rarely reflective of direct usage. Equally, falling on the fringe of medieval Cambridge, the site's (sub-)urban context is also influential. Not a matter of rural isolation – the boundary walls were not absolute – there can never be certainty whether material of whatever period has been introduced into the grounds.

Monasticism has long been considered a suitable theme for archaeological study, increasingly so in recent

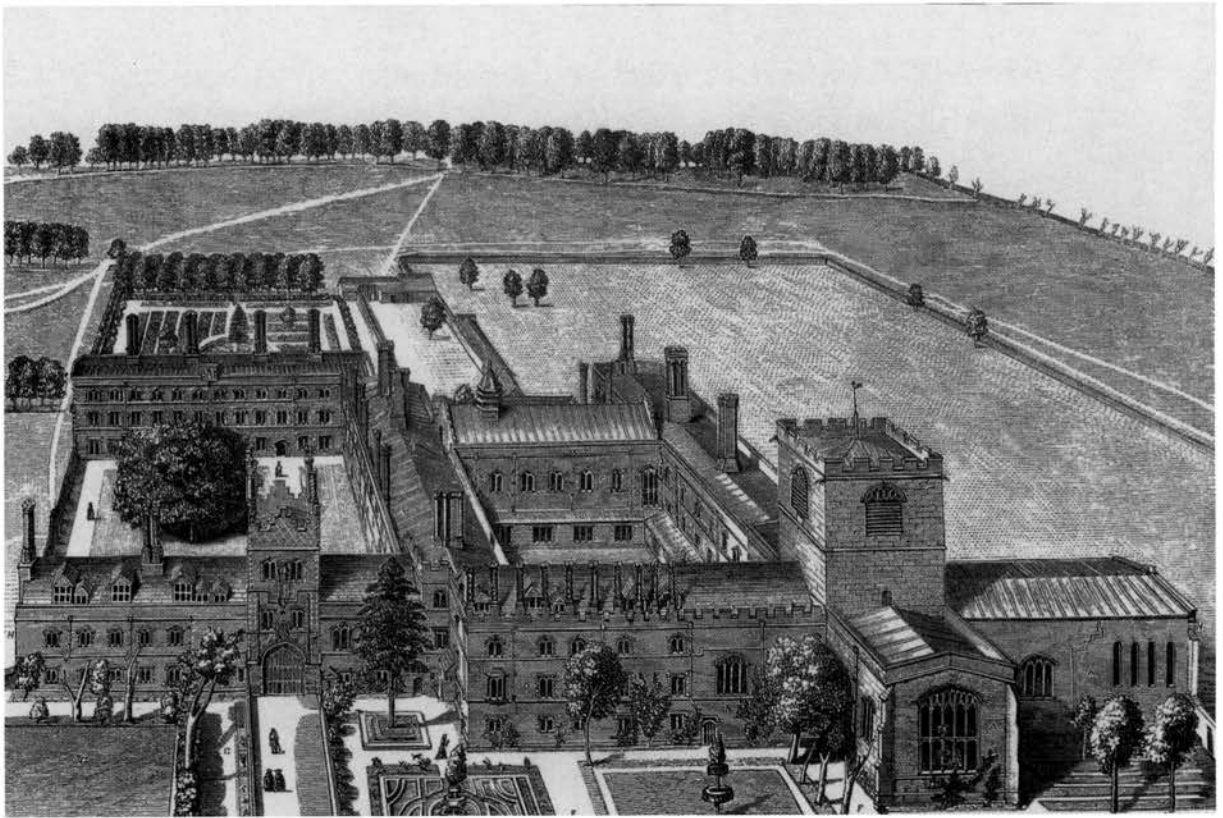


Figure 1. Loggan's view of the College (1688)

years (e.g. Gilchrist 1994; Gilchrist & Mytum 1989; 1993).¹ Apart from a few instances of development-led work, the same is not true of early colleges – cloaked or ‘faceless’ monastic brethren have been considered somehow more ‘archaeological’ than the ancestry of individuals claimed by colleges. In the case of Jesus College, its membership has included Cranmer, Coleridge and Lawrence Sterne; amongst its architects have been Essex and Pugin; and William Morris, Burne-Jones and Maddox-Brown all participated in its interior design. Amid such august company does archaeology have anything to contribute? In terms of the material cultural correlates of elite communities, the answer must be yes inasmuch as it is the study of historical institutions integral to the fabric of the modern world. Appropriate to its University home-base, the ‘archaeology of colleges’ (and institutions) has been a research directive of the Cambridge Archaeological Unit since its establishment in 1990. Work at Jesus College represents an initial attempt to develop this agenda – framing the relevance of early post-medieval archaeology.

Investigations within the college are on-going. Failing the final word, it seems appropriate to publish the results to date given the retirement of the Master, Professor Lord Renfrew and also Nigel Lacey, its Domestic Bursar, in 1997, both of whom have been instrumental in fostering the recording.

Historical Outline with J.M. Renfrew

The college buildings have been studied by two major authorities, whose findings are published in the *Architectural History of the University of Cambridge* (Willis & Clark 1886), and the Royal Commission on Historical Monuments’ *An Inventory of the Historical Monuments in the City of Cambridge* (1959). This summary draws upon them and Gray’s *History* of 1902 (revised by Brittain in 1960), and his 1898 study of the nunnery.

The College of the Blessed Mary the Virgin, St John the Evangelist and the glorious Virgin St Radegund was founded by John Alcock, Bishop of Ely (1486–1500), who obtained letters patent for its incorporation from Henry VII on the 12th June 1496; shortly after, it became known as Jesus College. Sherman, the 17th century historian of the college, states that Alcock had begun the adaptation of the buildings in the year of its foundation, the first Master and Fellows being admitted in 1500. The college was established in buildings of the Benedictine nunnery dedicated to St Mary and St Radegund which had been built by Nigellus, the second Bishop of Ely, in c. 1138. The nunnery buildings which have been thought to survive in altered form are those around the cloisters, including the chapter house, the hall, the chapel, an extension of the east range as far as J Staircase in Pump Court; the west range of the Master’s Lodge, the Prioress’s Room, Master Study and Oratory, and the main gate approached along the ‘Chimney’. Yet, while there is

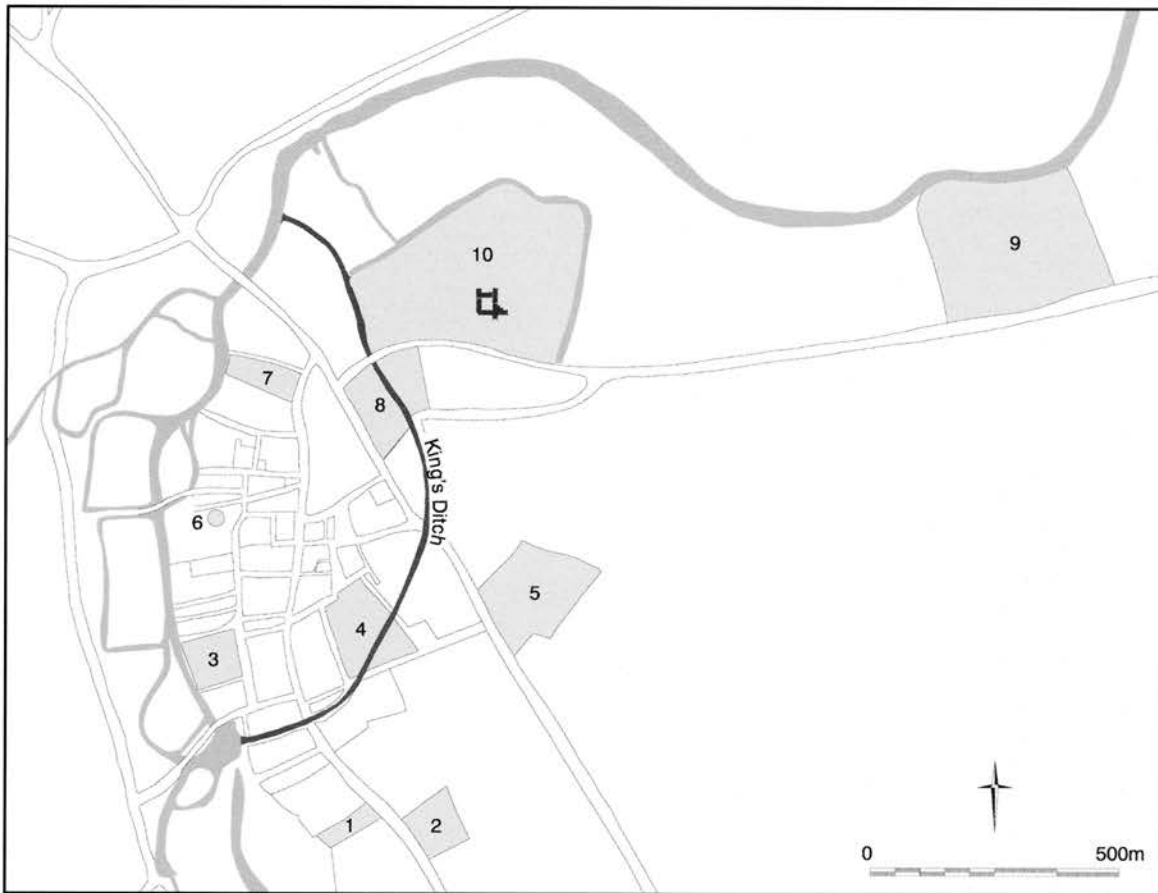


Figure 2. Cambridge Religious Houses: 1) Friars of the Sack (or Penitence), founded c. 1258; 2) Gilbertine Priory of Sempringham, founded c. 1290; 3) Carmelite Priory, founded c. 1292 when moved from Newnham; 4) Augustinian Friary, founded c. 1290–1300; 5) Dominican Priory founded prior to 1238; 6) Ely Hostel, founded after 1321; 7) Hospital of St John, founded c. 1200; 8) Franciscan Priory, founded c. 1226 near Guildhall, move in 1270 to Sidney Sussex site; 9) Augustinian Priory in Barnwell, founded in 1112; 10) St Radegund's, founded c. 1139

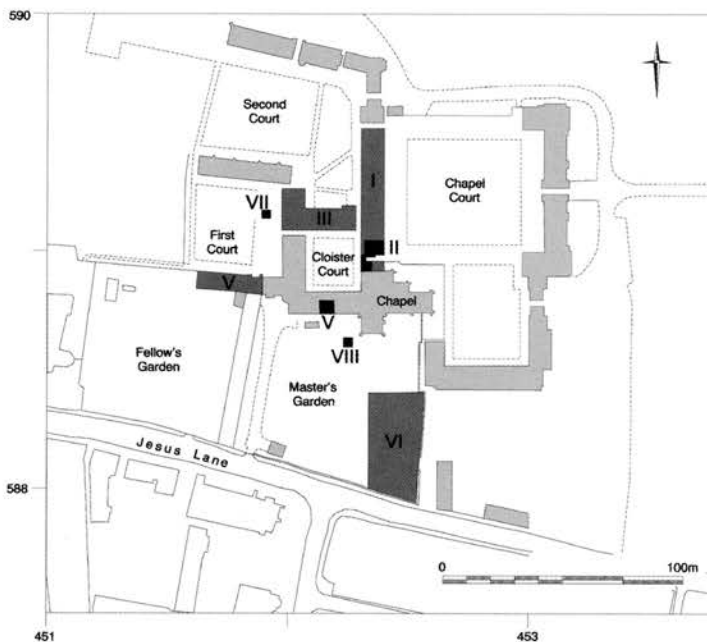
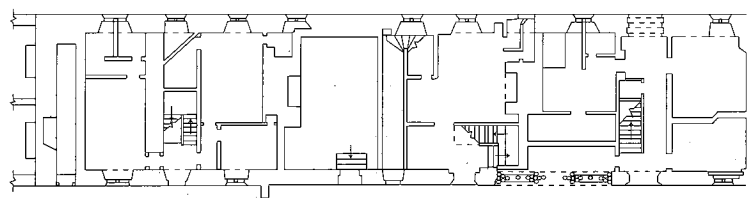


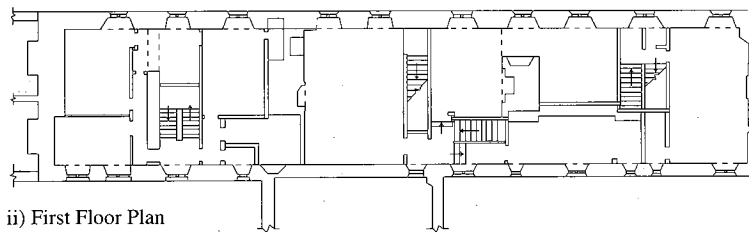
Figure 3. Location plan

general agreement that the layout of the early college buildings follows the plan of the nunnery, apart from the chapel (where much early work is exposed) the form of the monastery remains obscure.

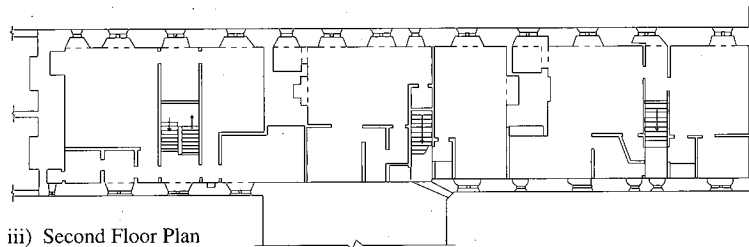
Whilst comparatively little is known of the three centuries' history of the nunnery, a number of calamities are documented. In 1277 the chapel tower collapsed, there were major fires in 1313 and 1376, and a gale severely damaged the buildings in 1390. By the time the house was dissolved, there were apparently only two nuns remaining and the buildings were in a poor state. At its foundation the college, however, inherited a number of early documents from the nunnery and the extensive properties with which it had been endowed. The nave of the nun's church then extended as far as the present front door of the Master's Lodge, and its western two thirds formed the parish church of St Radegund, with its churchyard lying to the south. Continuing in use as a burial ground well



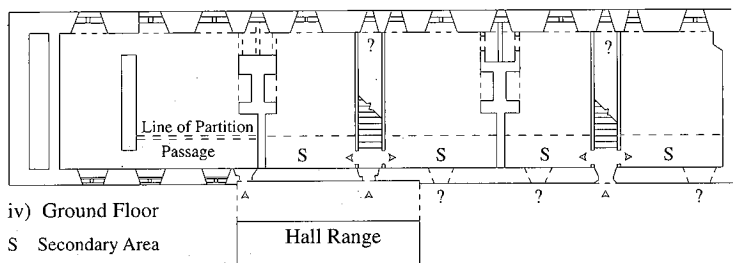
i) Ground Floor Plan



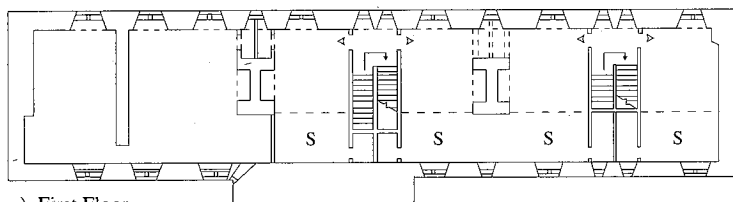
ii) First Floor Plan



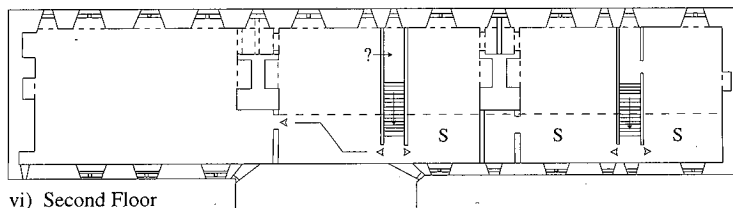
iii) Second Floor Plan



iv) Ground Floor
S Secondary Area
H Hall Range



v) First Floor



vi) Second Floor

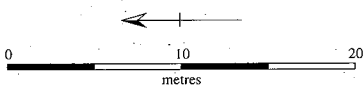


Figure 4. East range, Cloister Court – Floor plans 1989 (i–iii) and room arrangements of c. 1500 (iv–vi)

into the 16th century, the nuns seem to have been buried immediately outside the east end of the chapel in the area of Chapel Court.

Alcock, whose arms and rebus – a cock standing on a globe – occur throughout the buildings, was controller of royal works for Henry VII and had undertaken building at Ely, Westbury, Malvern and Great St Mary's Church, Cambridge. In order to convert the nunnery buildings for college use he walled up the chapter house and reduced the nave of the chapel by two-thirds, inserted two floors in the western end (the parish church then occupied the remaining length of the nave and the transepts). The nave aisles were demolished, arcades infilled and the tower heightened by another floor. Alcock had the gatehouse tower built and apparently established a grammar-cum-choir school in the range to the west (disbanded in 1567; see Gray 1967). Convention would have it that the hall conversion involved little more than replacement of the thatched roof of the nun's refectory with one of chestnut, and the addition of an oriel window on the north side. Generally, the clunch walls of the monastic buildings are said to have been given a more durable outer skin of brick (allegedly the first use of 'Cambridge brick').

I) The East Range Fabric

In 1986 the college embarked upon a programme of repair and restoration. Starting with the east range of Cloister Court, this work was carried out during 1988–89 and concentrated on the roof and the upper walls which had been damaged by water penetration (Richmond 1990). Throughout, the existing fabric was treated with respect, the only major loss being the heads of the window openings.²

The Monastic Period (c. 1139–1496)

All surviving features of this period in the east range of the cloister appear to be of the 13th century, but adjacent fabric in the north transept of the conventual church can be dated to c. 1150. Before considering these features in detail, what remains of the early outline must be established. The range is defined at its south end by the north transept and at the north by a clear building break, marked with quoins. It was extended from this point in 1822. The width is defined by the 13th century entrance to the chapter house on the west side and by a contemporary archway opposite it in the east wall. The range was 41m long and 9.40m wide, the east and west walls being 0.8m thick. The highest point to which the medieval fabric survived was approximately 7.00m above the floor level of the chapter house. This is in the area of an *in situ* fragment of the rear arch of a window of two-centred form (slightly to the south of the doorway), giving onto the high end of the hall from the range. At this point much of the walling on the second floor was stripped during the building work and no medieval fabric was found. These observations confirm that the plan of the medieval range survives in outline and suggests that it was probably of two storeys.

Evidence also survives to indicate the early arrangement of the ground and first floors. Only two masonry cross-walls remain, both at the north end. The first is just over 1.00m from the gable wall and cuts off a narrow compartment on the ground floor of the range. The floor is sunk well below the level of the floor of the chapter house and has been interpreted as the shaft of a rere-dorter or lavatory serving the first floor. This was confirmed by an investigation carried out by the contractor on the west side of the range that revealed the top of a substantial drainage channel which came from the direction of the river. The second wall defines a small room 3.50m wide south of the rere-dorter.

A large doorway in the west wall of the range axial with the north Cloister Walk is also of medieval origin. Only the upper parts of the splayed jambs survive as the head has been broken away to accommodate a later doorway. The fact that this has been necessary, and the proportions of the surviving opening, indicate that the floor levels of both the cloister and the range have been raised. South of this doorway in the west wall of the range is an entrance, an elaborate composition consisting of a doorway flanked by window-like openings. It is of early 13th century date and was the entrance to the chapter house, the floor of which was some 0.85m below the present level of the cloister walk. Three other fragments of the chapter house have been identified in the east wall of the range, a corbel and arch opposite the north side of the entrance, the remains of a pier opposite the door and a short section of chamfered arch opposite the south side of the entrance. These demonstrate that the east wall of the range was pierced by a double arch which gave onto a compartment of which no trace remains. This area was excavated in 1894 (1959: 91; problems with the interpretation of this work will be discussed in the following section). The detail of the corbel on the north side shows that the chapter house was vaulted, as part of a chamfered diagonal rib survives. A reconstruction of this vault based on the features already described enabled the approximate level of the first floor of the range to be established (fig. 23). The well-preserved vaulting in the chapter house at Lacock Abbey is similar in form and provides a parallel for the solution adopted to accommodate the doorway. Cleeve Abbey, Somerset provides a parallel for the overall form of the compartment. The chapter house is vaulted below the dormitory and then opens into a tall compartment on the east which rose to the full height of the range (fig. 13).

No new information has been found in the area between the chapter house and the north transept of the conventual church and its form in the monastic period remains unknown. The west wall of the range was examined for original architectural features in 1894 but the masonry was found to consist of re-used material, some of the 12th century, perhaps a re-facing subsequent to the suppression (RCHM 1959). The north wall of the north transept has a row of three substantial semi-circular-headed windows which are

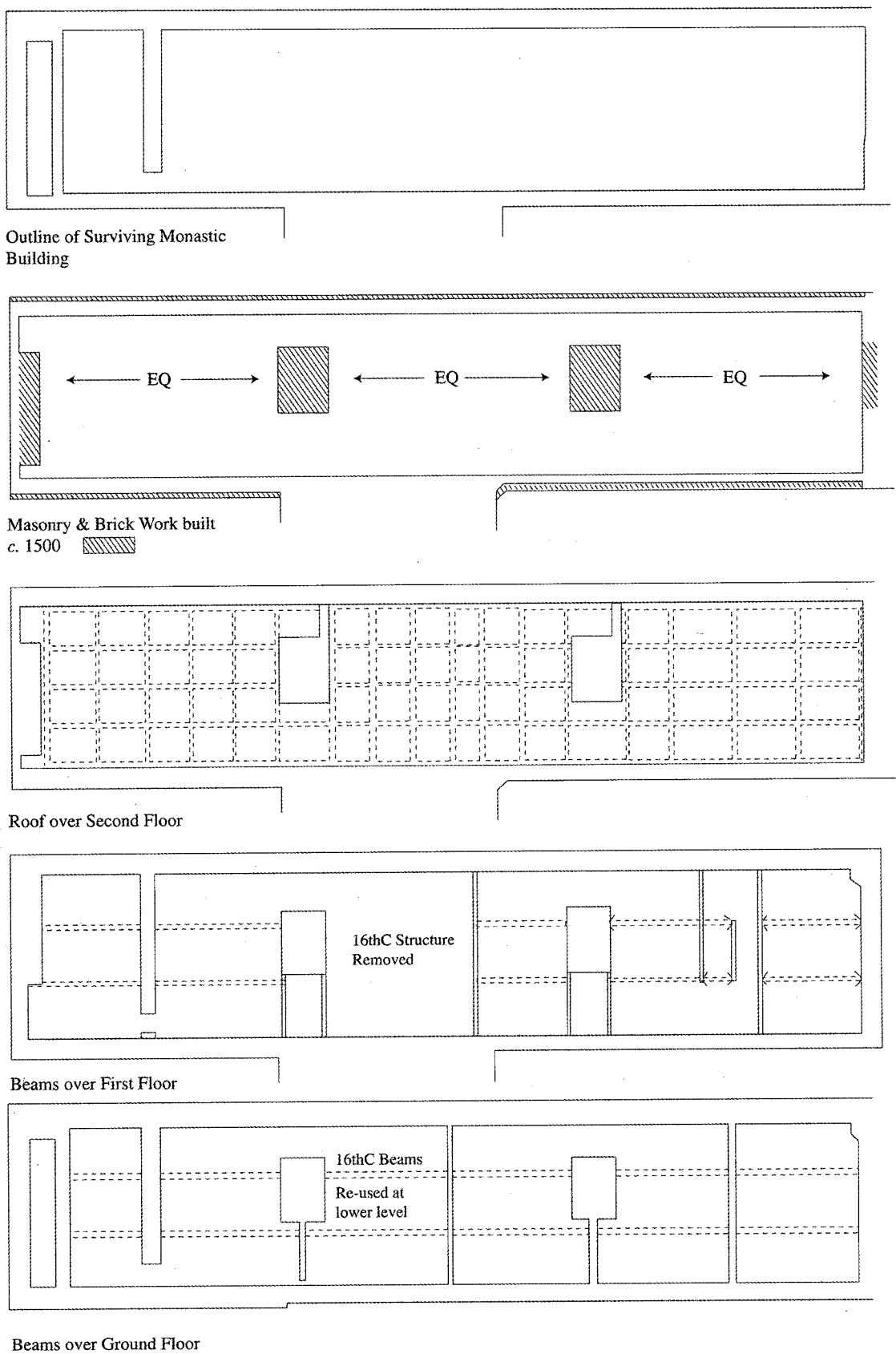


Figure 5. East range, Cloister Court – Analysis of the conversion c. 1500 to college rooms

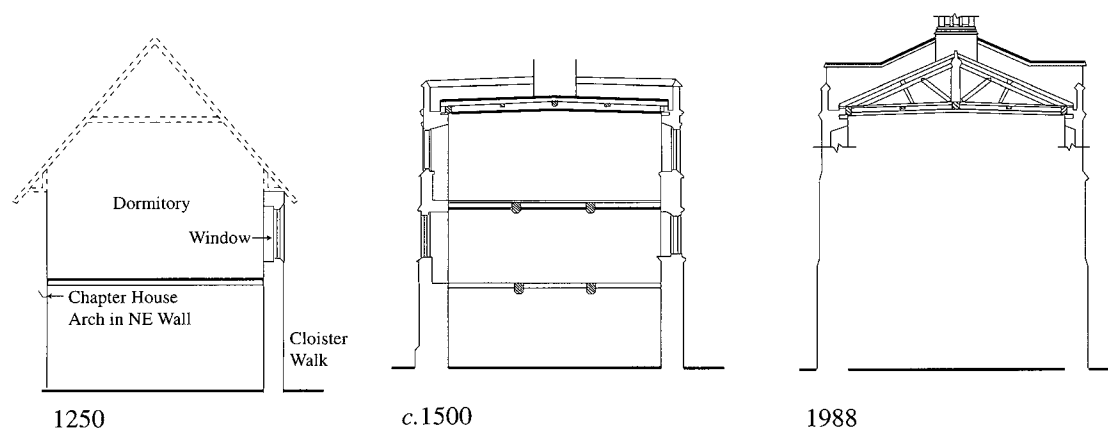


Figure 6. East range, Cloister Court – Development of the section

now blocked. It is likely that during the medieval period these were open and that the east range of the cloister did not run right up to the transept. The height of the sills of these windows would allow a connection on the ground floor (Willis & Clark 1886 II: fig. 5).

Little evidence of the monastic period survives at first floor level. The rere-dorter shaft does not rise through this level and it therefore appears that it served the first floor. The masonry wall to the south survives to a height of about 7.00m above the floor level indicating that it provided a lobby to the rere-dorter on both floors. The only other feature to survive is the rear arch of the two-centred window in the west wall of the range; this was presumably one of a row of windows.

The only surviving medieval evidence within the range which can be closely dated is the entrance to the chapter house which belongs to the early 13th century. The remaining fabric may well be contemporary. The general arrangement of the building appears to follow the normal monastic pattern except perhaps at the south end (fig. 12). However, cloisters are normally sited south of the church. In this case the water supply to the north almost certainly determined the reversal of the normal layout, as for example at Tintern Abbey, Gwent. The rere-dorter at the north end of the range was divided from the remainder by a lobby on both floors. It may be that the shaft was originally divided and served both levels matching the lobbies. The next major division on the ground floor was the north wall of the chapter house, now demolished. The area between this and the rere-dorter would have been the nuns' day room. The large doorway which survives at the end of the north cloister walk would have given access to this and may also have served a flight of stairs leading to the dormitory.

All ground floor compartments were tall being 3.80m in height. On the first floor the dormitory extended from the south side of the lobby to the southern side of the chapter house and perhaps a little beyond. It would have been lit on both sides by uniform rows of two-centred single-light windows, which coincided with the bed spaces. This arrangement can be seen at many monastic sites, such as

Cleeve Abbey, Somerset and Forde, Dorset. The walls of this upper floor were approximately 3.00m in height and the building would probably have had a steep-pitched roof open to the rafters and with plain eaves. The connection of the range to the conventual church has been discussed but the night stair has not been mentioned. This stair, leading from the dormitory to the church, would have been in the area between the chapter house and the transept. It is perhaps significant that there is a doorway below the windows in the north wall of the transept. The turret stair at the northeast corner of the transept which gives access to a gallery on the east side is too small to have served as the night stair.

The Conversion of the Dormitory Range

There is no precise indication of the date of this work in the fabric but it is clear from the uniformity of the detailing of the stacks and timber-work, that the conversion was a unified campaign, compatible with a date of c. 1500. The lack of a precise date raises the question of whether the conversion might perhaps be a late monastic phase which was utilised by Bishop Alcock. This does not appear to be the case as the new accommodation consisted of two uniform staircases and three sets of larger rooms, clearly a collegiate pattern with no monastic precedent. Indeed it is significant that the chapter house, an essential feature of any monastic complex was lost at the time of the conversion. For these reasons there is little doubt that the conversion was initiated by Alcock upon founding the college.

The preceding account of the monastic phase suggests that much of the 13th century buildings survived until 1496, and it would be reasonable to assume that a range of two storeys was standing at that time. It is clear that, apart from the rere-dorter shaft and the adjacent lobby wall, the whole of the interior of the range was gutted (fig. 5). The east wall and the west wall north of the hall were faced with brickwork to mask the medieval masonry. They are just over 1.00m thick indicating that the brickwork was of double thickness. The southern part of the west wall was also faced in brick above the level of the cloister roof, but done within the thickness of the

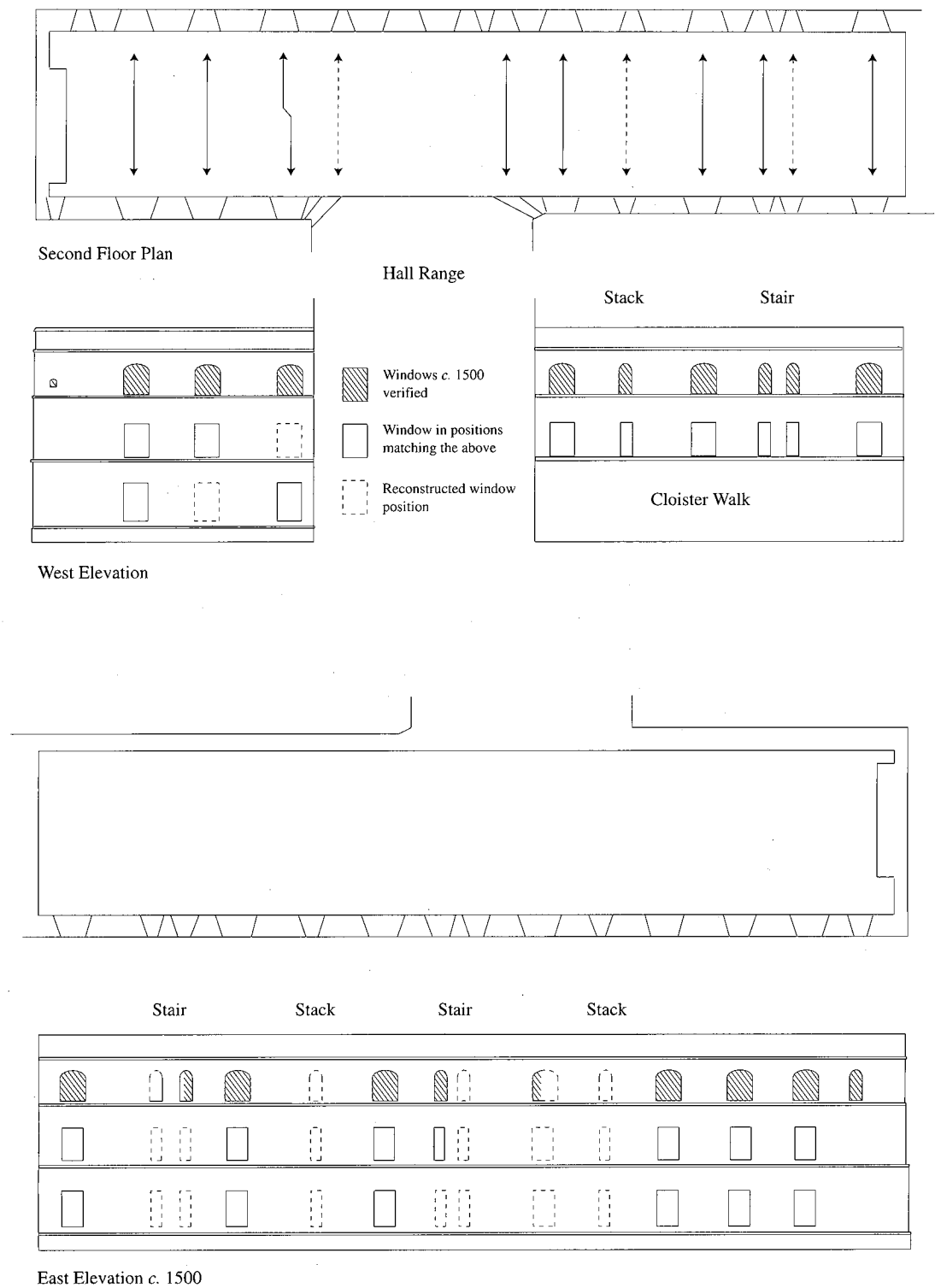
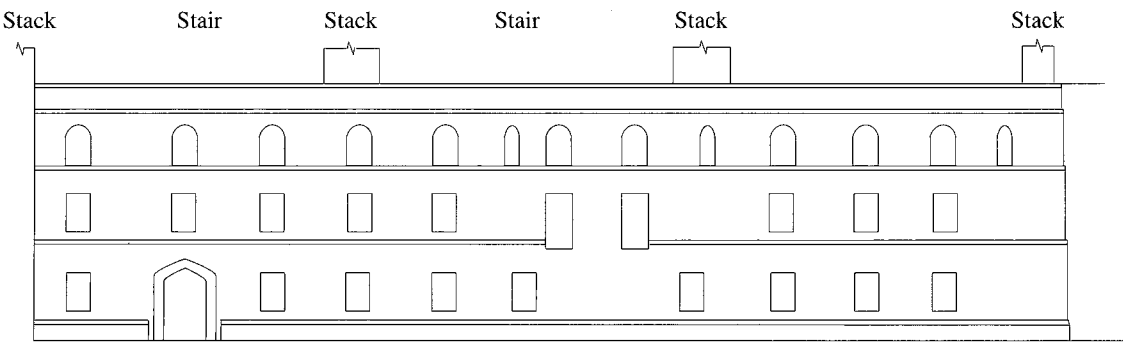


Figure 7. East range, Cloister Court – Analysis of the fenestration

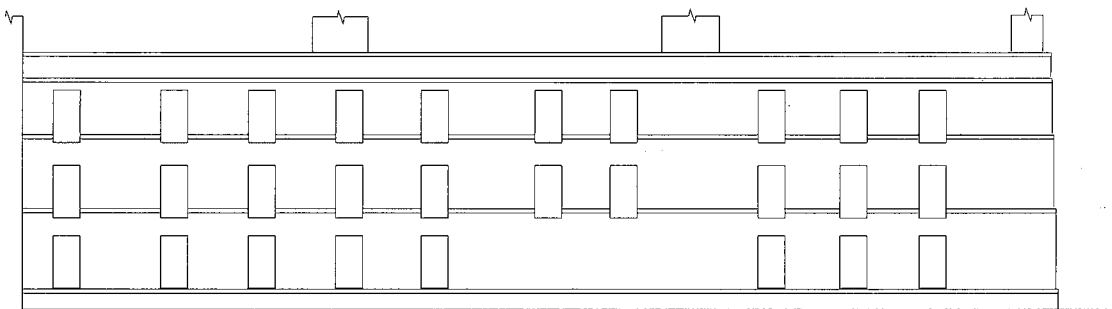
medieval wall (either by replacing the outer face of masonry with brickwork or by rebuilding the entire wall); the wall now consists of clunch with brick facing.

The range was divided into three equal bays by the construction of two free-standing chimney stacks each having fireplaces back-to-back on three storeys. An end stack was also constructed above the rere-

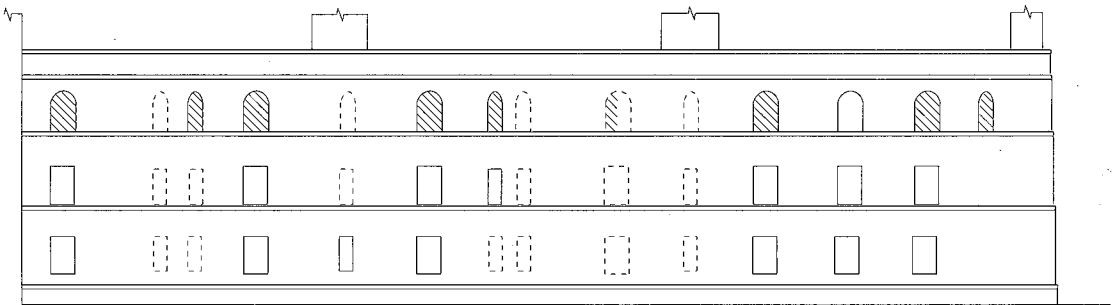
dorter shaft against the north gable, and fireplaces and flues cut into the gable of the north transept. The whole range was raised in height to three full storeys (much of the walls of the second floor was stripped of plaster and no sign of *in situ* medieval work was found). The new roof was shallow pitched, covered in lead and had box gutters behind brick parapets. The Loggan engraving of 1688 shows this arrangement



Present Elevation to Chapel Court



Reconstruction of the 18th Century Elevation



Reconstruction of the 16th Century Elevation

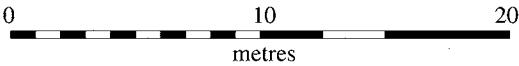


Figure 8. East range, Cloister Court – Development of the east elevation

and perhaps the original terminations of the stacks which have since been replaced (fig. 1).
The new interior structure was almost entirely of timber and a curious doubling up at the level of the second floor (there are beams above and below the floor boards in the major partition walls) may indicate

that the structure of the ground and first floors was built before the range was raised in height (fig. 10). This would have given stability to the surviving structure and could also have served as a platform from which to construct the new walls of the second floor. The form of the staircases leaves no doubt that

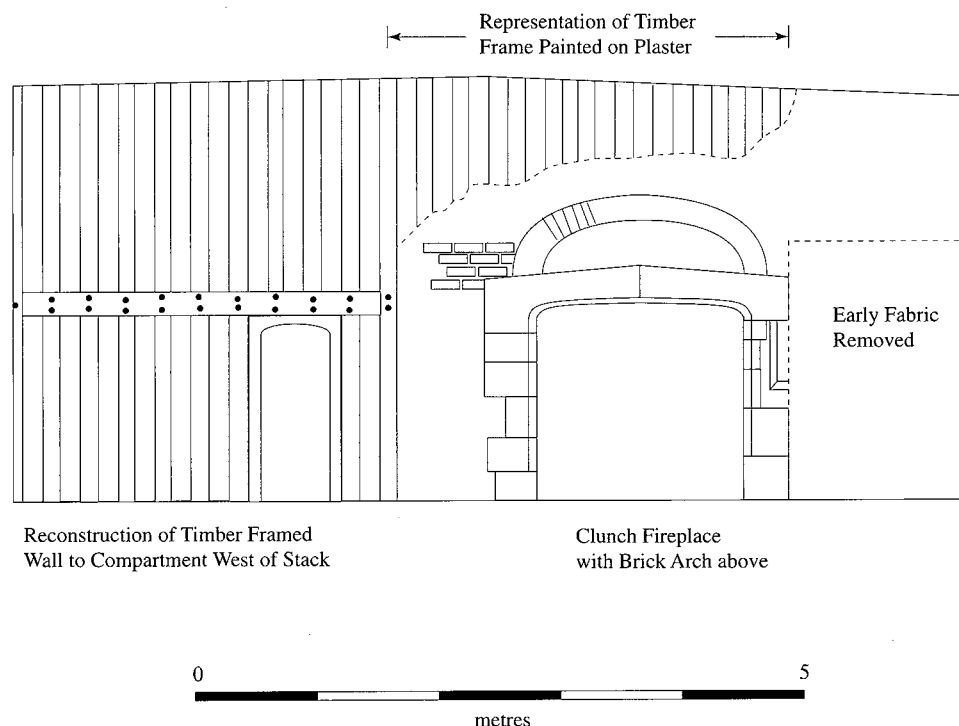


Figure 9. East range, Cloister Court – Decoration c. 1500

the second floor was part of the original scheme for the conversion (fig. 11); comparison of the sections of the monastic range and the conversion shows that the first floor levels remains more or less constant (fig. 6). This may explain why the floors of the range and cloister were made up to the present level as it produces a ground floor of reasonable height giving three storeys of domestic proportion.

The two southern bays of the range appear to have been identical in plan, each with a staircase which ran across the range in two straight flights (one either side of a cross-wall placed in the centre of the bay). This gives rooms of equal size on the first floor and one of similar size and another slightly wider on both the ground and second floors (fig. 4). The ground floor rooms were entered by opposed doors just inside the entrance to the staircase. A small hall gave onto a single flight which rose to a double-width landing on the east side from which opposed doors gave access to the first floor rooms. The stair then turned back on the other side of the cross-wall in another straight flight to a single width landing which gave access to the rooms on the second floor also by opposed doors. Whilst neither staircase survives unaltered, careful examination of the evidence shows that they were identical in design (fig. 11). Two of the external doorways survive; that giving access to G Staircase remains in use (fig. 4).

The northern bay of the range was organised differently. It was entered by a doorway similar to that of G Staircase at the north end of the 'dark entry', the passage which runs under the high end of the hall. The doorway is now blocked and partly obscured by later brickwork. A beam in the ceiling of the ground floor of the range has mortises in the underside and is

moulded on its east face. This demonstrates that the doorway gave access to a passage on the west side of the range which connected with the room which was formerly the lobby to the rere-dorter. While the arrangement on the first floor mirrors that of the ground floor, there is no evidence for a passage along the west side. The second floor appears to have consisted of a single large room. No evidence of a staircase of c. 1500 has been found in the bay. Occupying half the width of the range, J Staircase is an insertion of c. 1800. The only suitable site for an earlier stair would have been on the south side of the former lobby wall, but if it followed the pattern of G and F Staircases some traces should have been found outside the area disturbed by the construction of the present stair. An alternative explanation is that the first and second floors were entered from the rooms on the north side of G Staircase. Whilst all evidence on the first floor has been destroyed by the construction of the combination room in the 18th century, on the second floor the timber-frame partition on the west side of the stack is original and contains a doorway. Although the area west of the stack was lit by a splayed window running to the corner between the hall and the range, there is no evidence for a wall on the north side of this area. It may therefore have been the entrance to the third bay reached by a passage which ran parallel to the east wall of the hall. The contention that the third bay of the building did not have a staircase in the 16th century is supported by the analysis of the fenestration.

The dismantling of the top of the east and west walls of the range and the removal of much of the remaining plaster on the second floor enabled the windows at this level to be studied. The original pattern

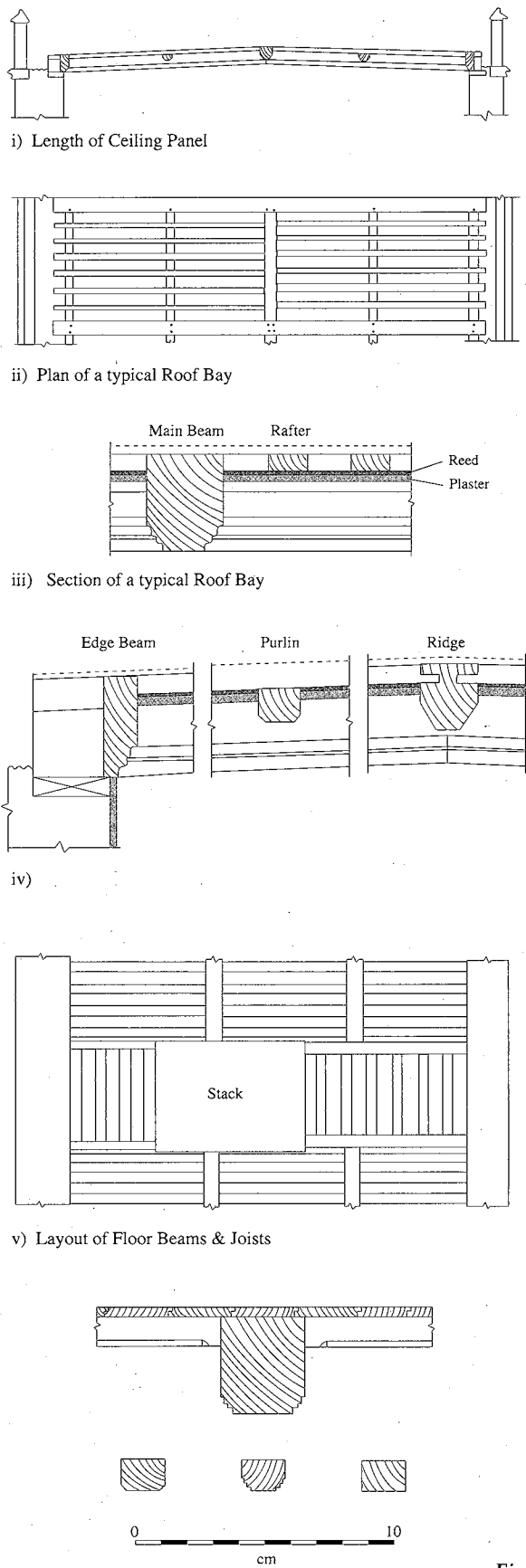


Figure 10. East range, Cloister Court – Roof (i–iv) and floor details (v & vi)

on the east side has been much disturbed by the creation of the present relatively regular elevation which is mainly composed of two-light windows of late Gothic form. That work appears to be of the 19th century, an attempt to rectify earlier alterations when much deeper windows arranged in regular bays were introduced (fig. 8).

The east elevation is of great interest as it has 19th century windows of 16th century form in regular bays which were presumably created in the 18th century. Figure 7 shows the position of the window jambs which survive from the 16th century arrangement on the second floor. All the windows on the west side remain unaltered and the outlines of seven complete windows and one jamb of two others were identified on the east side. The original fenestration on the west side had both a vertical and a horizontal pattern. The upper window openings had four-centred heads while those below were square-headed; there was also a pattern of alternating one- and two-light windows with one single-light window opposite the stack and a pair opposite the staircase. At the north end of the elevation the vertical arrangement was similar but the horizontal pattern simply consisted of three two-light windows. Having identified a pattern on each side of the hall it became clear that the surviving arrangement on the east side, although a fragment, was a mirror image. When drawn out, this reveals an elevation of great interest consisting of regular bays of two-light windows separated by pairs of single-light windows in line with the staircases and single windows of the same form in line with the stacks. The reconstruction of the full pattern of the southern two-thirds of the building shows an elevation clearly related to the staircase plan. At the north end there are three bays of two-light windows which also mirror the arrangement on the west side. This supports the idea that this bay was arranged differently from the other two and suggests that it may have consisted of larger rooms without a staircase. The one single-light window on the top floor at that end of the building can be explained by reference to Figure 4 which shows that the position was blocked on the lower two floors by a fireplace and the wall of the rere-dorter shaft. The design of the well-preserved elevation to the cloister is difficult to understand until it is seen as a partial reflection of the eastern elevation.

Little can be said of the detailed arrangement of the rooms at the north end of the range. If undivided, the upper room had a fireplace at either end. On the first floor both appear to have been heated, while only the southern on the ground floor had a fireplace. All on G and F Staircases, except the ground floor adjacent to the transept, retain original fireplaces although some have been blocked and reduced in size. The stacks dividing the range are positioned well to the east of the centre line suggesting that the main rooms occupied the eastern two-thirds of the range, a configuration more or less symmetrical with the fireplaces. The western third appears to have been occupied by smaller compartments. The only room in which this arrangement survives with any clarity is

the southern on the second floor of F Staircase. Further evidence is provided by Willis and Clark's pre-1880 plan of the college, which shows the ground floor arranged with entrance lobbies and secondary compartments on the west side of the range (1886 IV: fig. 14). The spaces around the staircases and stacks were also used and had windows where possible. There is some evidence to suggest that the spaces on the east side of the stacks were divided along the centre line and therefore served the rooms on either side, perhaps as closets (fig. 4). The mark of a division between a pair of shallow recesses was found in the plaster on the east side of the south stack at second floor level. A partition survives east of the north stack at first floor level and the plan in Willis and Clark shows a similar arrangement on the ground floor east of the southern stack. The rooms off the staircases are of two different sizes depending on their position relative to the stairs. The larger are all lit by two windows (one a single-light and the other of two-lights), while the smaller rooms have only one window of two-lights; the regularity of the relationship between room size and windows gives further credence to the reconstruction of the 16th century east elevation.

Evidence of what was almost certainly the original scheme of decoration was found in the north room of the second floor of F Staircase. The external masonry walls were plastered as was the stack; internal partitions were constructed of timber-framing with broad studs and rails. The spaces between were filled with flush plasterwork. This pattern was carried across one of the masonry walls, the plaster of which was painted with a representation of timber-framing. Only preserved over the fireplace, there is no evidence to show how other walls were treated (fig. 9).

It was also possible to reconstruct how the ceilings were formed. On the second floor they were an integral part of the roof and were arranged in bays (only the main timbers were exposed; fig. 10). These ran right across the range and were defined by timbers with double-ogee mouldings (i.e. cambered main beams and side beams). The rectangles were subdivided into roughly square panels by the ridge and a pair of purlins which were chamfered and set above the level of the mouldings of the main beams. These panels had plaster ceilings carried on a reed lath fixed to the underside of rectangular common rafters. This pattern is interrupted once by a main beam on the second floor room on the north side of F Staircase. It is different from the others as it is re-used from a building of much wider span and decorated with running foliage and berries; it may be an insertion of c. 1600 (RCHM 1959).

The ceilings of the ground and first floor rooms also had a pattern of major and minor timbers (fig. 10). The major beams were arranged in pairs along the length of the building defining three parallel bays. These beams have double-ogee mouldings smaller, but similar to those of the principal roof timbers. The only exception are the beams in the northern bay which were plain chamfered. The remainder of the structure was made up of common rafters which ran

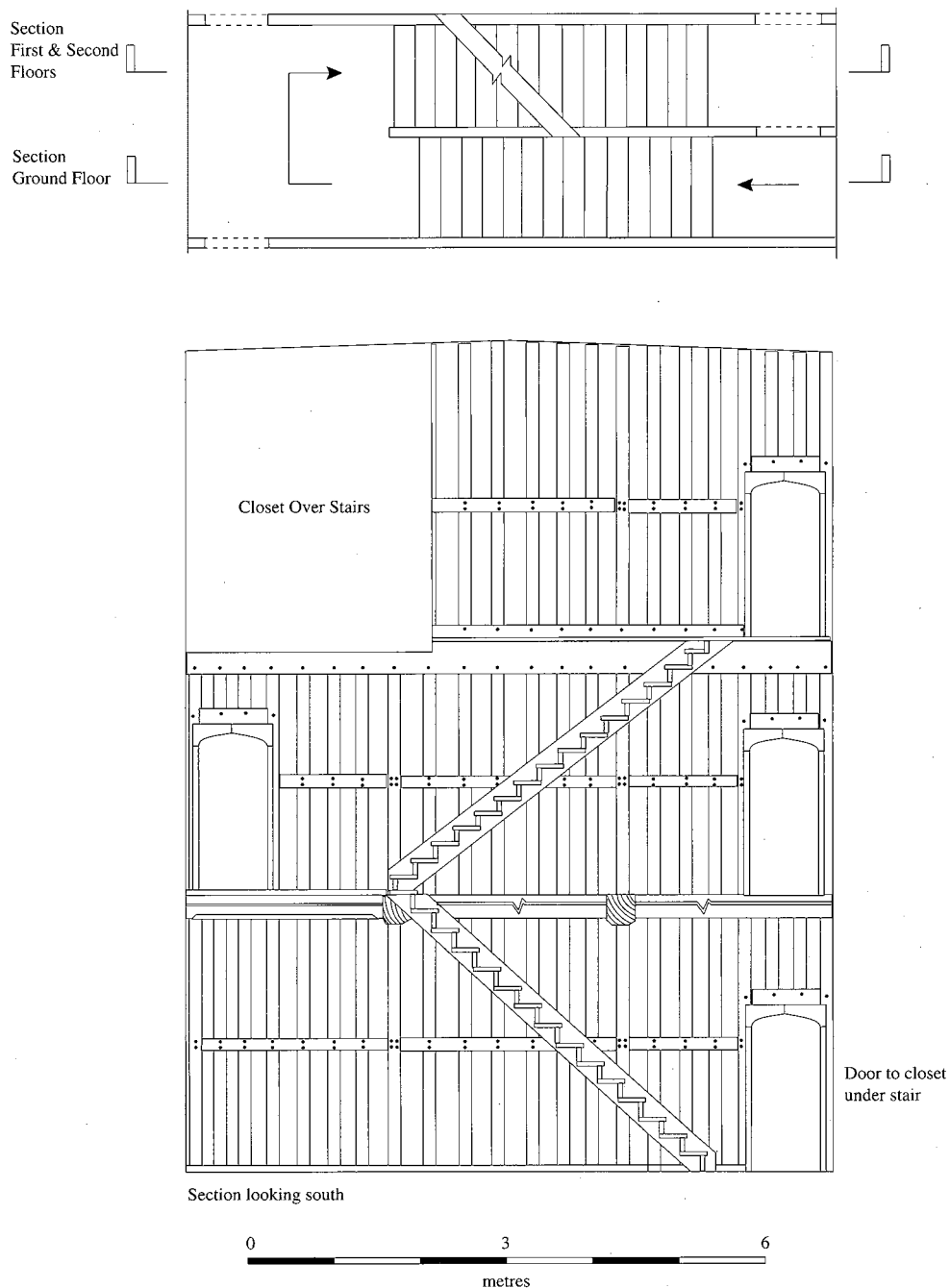


Figure 11. East range, Cloister Court – Staircase details

east to west and were mortised into the main beams above the level of the mouldings. The common rafters were of three types: rectangular, plain chamfered or with a smaller version of the double-ogee mouldings. The beams and rafters carried a floor of wide planks. The underside of these formed the ceiling of the room below and in some cases were white-washed. In other words, the rafters and beams were exposed under the ceiling at both the ground and first floor, an impressive but 'noisy' form of construction which explains why all rooms now have plaster ceilings fixed to the underside of the joists.

Except where they were masked by the cloister and hall, the external walls were faced in brick (230 x 50 x

110mm) laid in courses of headers and stretchers in a soft mortar with wide joints. In the unfaced areas where there is no plaster it is possible to see the fabric of the monastic walls which were built of roughly coursed clunch with limestone dressings, presumably originally rendered or plastered. The undisturbed work of the 16th century also has dressings of limestone (e.g. quoins, string courses, doors, windows and copings). Original windows with four-centred and square heads survive in the elevation to the cloister and the doorway to G Staircase remains unaltered. The rebuilding of the upper wall revealed the construction of the rear of the windows. The jambs were formed in rubble with freestone blocks forming the

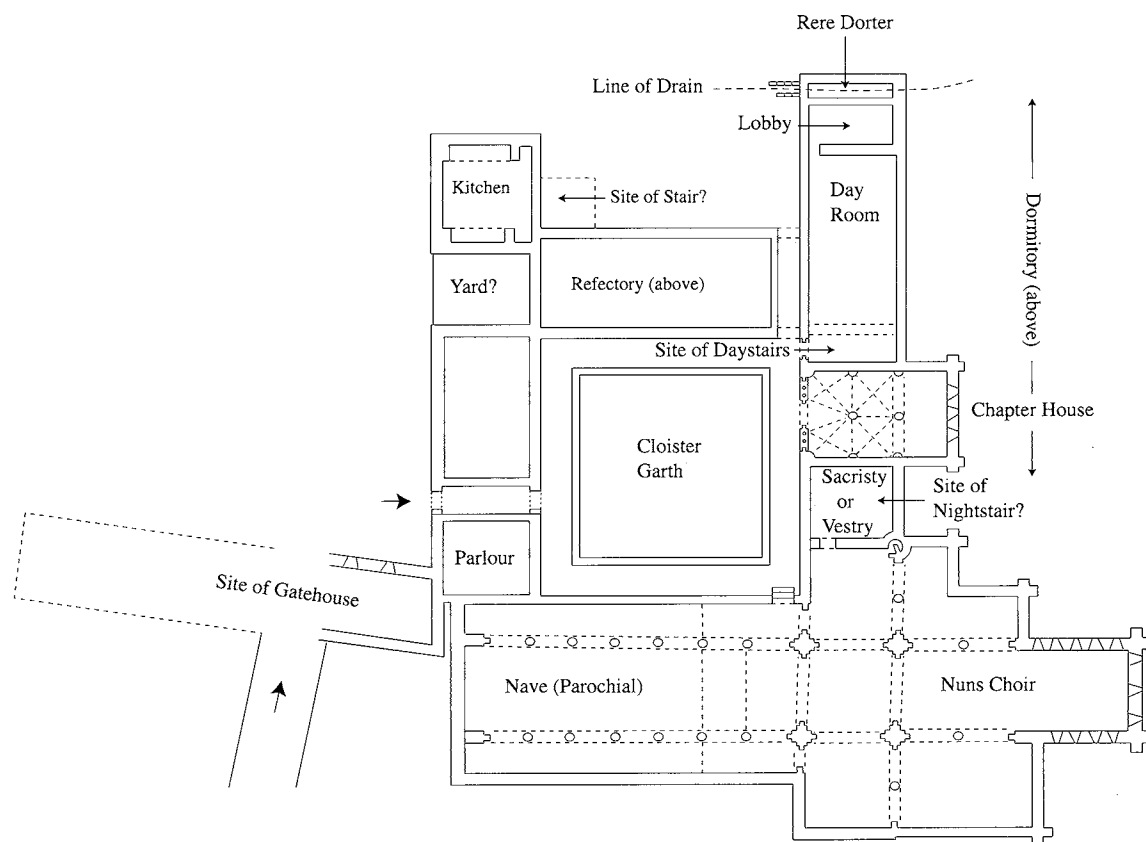


Figure 12. Plan of the Monastic Complex c. 1250

angle between the reveal and the wall. The four-centred arches were turned in a single course of bricks set on edge similar to those used in the external walls. The original stacks above roof level have been rebuilt, but Loggan's print of the college may show their original form (fig. 1). The stacks were of uniform construction, mostly of brick. The fireplaces are all of the same design and built of clunch. They have simple four-centred arches with a chamfer which runs down the jambs and stops clear of the floor; above the stone arch is a brick relieving arch.

The structure of the 16th century roof survives as the ceiling to the second floor and has already been described (fig. 10). A later roof of steeper pitch, probably of the 19th century, was constructed above it (see below). The only elements of the earlier roof which are missing are the deck which consisted of wide boards and the covering which must have been of lead. This is confirmed by Loggan's print which shows a flat-pitched roof with details consistent with a lead covering (i.e. panels defined by rolls; fig. 1). The existence of the deck was confirmed by the discovery of widely spaced nail holes in the upper surfaces of the main beams and rafters on which it is laid. It was presumably removed before the construction of the later roof.

Described above, Figure 10 shows the layout of a typical chimney bay. The spacing of the main beams is unequal. The widest interval being in the centre in order to accommodate the staircases which ran across the building in straight flights between the beams.

The major partition walls within the building were an integral part of the staircases, the only exceptions being those west of the stacks which in any case follow the same general pattern. The walls were all of the same design and consist of a frame-work of posts with a mid-rail which carry two tiers of heavy studs infilled with wattle and plaster. Neither of the staircases survive unaltered, but they were of similar design and sufficient details have been recovered to allow the original form to be reconstructed (fig. 11).

The details of the east range before the Dissolution of the nunnery can only be conjectured, but nevertheless it was a two-storey masonry building. What is abundantly clear is that Bishop Alcock went to great pains to change it by adding an extra storey and cladding all the exposed walls in brick. Nearly all ranges of lodgings in Cambridge colleges at that period were of two storeys with a staircase rising in one broad flight across the building to a single landing which gave access to two rooms on the first floor. Many examples survive, perhaps the best being the south range of the first court at Queens' (built by 1449). Whilst a number of these ranges have attics, they all appear to be additions. The only three-storey range which was built before the mid-17th century was the south range of the old court of King's College which is illustrated by Loggan. It was also intended that the main court of King's College would be of three storeys, but this was never realised. These ranges, like that in Old Court, would have been served by turret stairs. The great innovation of Bishop

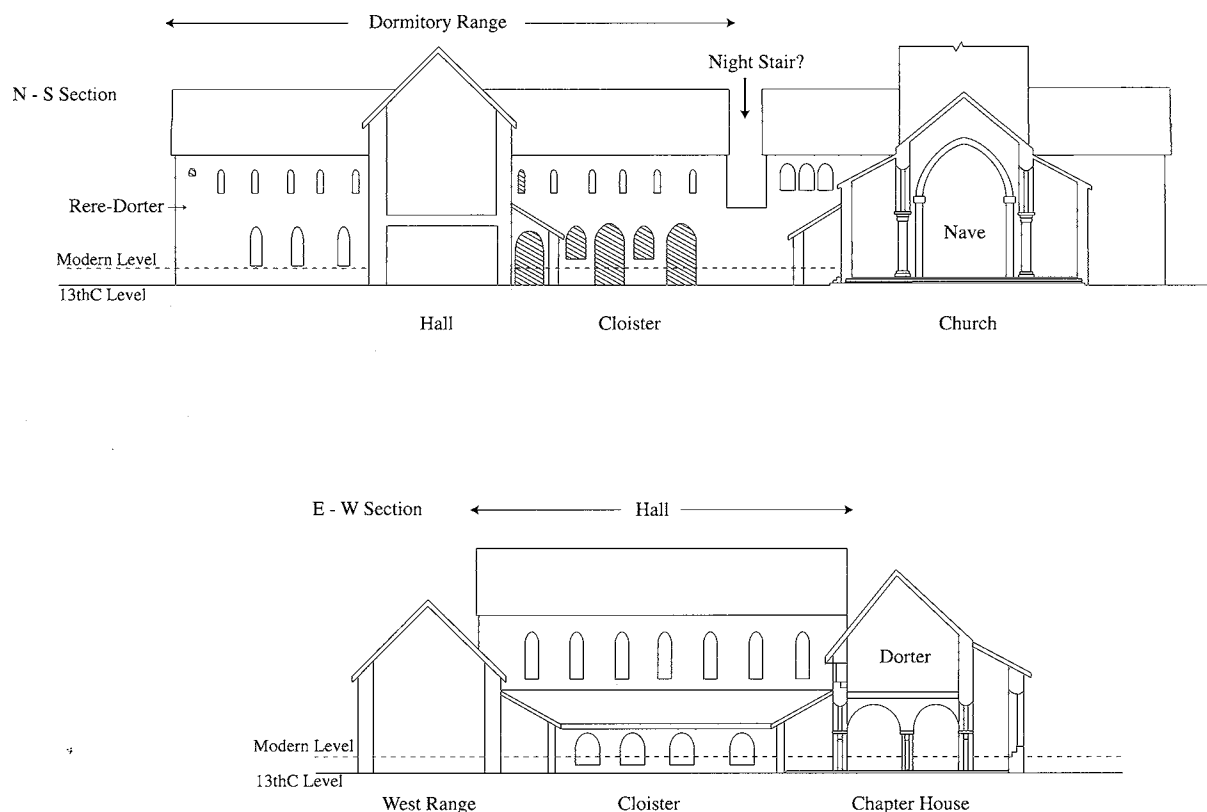


Figure 13. Reconstruction of the Monastic Complex c. 1250

Alcock was the creation of a range of three full storeys with a staircase of two full flights which returned across the range, a form without precedent in Cambridge.

Ranges of three storeys began to appear at the end of the 16th century, but the upper rooms were still treated as attics with windows under gables (e.g. the second court of St John's College of 1598). It was not until the second quarter of the 17th century that true three-storey ranges became the norm. The new buildings of Clare College designed by 1635 and the north range of the outer court of Jesus College, constructed between 1638 and 1641, provide examples. Both have staircases with short flights and intermediate landings between floors, quite different from those in the east range of Cloister Court.

Later Post-Medieval Alterations

The major surviving alteration of this period is the combination room which was fitted out by James Essex in 1762, the result of a bequest to the college by Francis Lord Middleton (RCHME 1959).³ This work involved the lowering of the floor, the 16th century floor beams being re-used in the ceiling of the wine cellar, and the raising of the ceiling. The new ceiling is supported on joists which are independent of the structure of the new floor above. The room also encroaches on the north side of G Staircase and, in consequence, the lower flight was rebuilt as a tight winding stair. The windows of the combination room retain their 18th century shape although they were re-

modelled in the 19th century. Patches of the brickwork below the sills of many of the present windows and renewed lengths of string course suggest that at one time the whole of the east elevation had windows which matched those of the combination room, presumably an 18th century re-ordering with windows arranged in bays.

There are a number of alterations of the 19th century, the earliest being the building of J Staircase and the remodelling of a number of the adjacent rooms. The staircase has short flights, intermediate landings and a rail with turned balusters. The present pitched roof of the range was probably added during this time. Its principal trusses stand on cambered main beams of the 16th century roof and are made up of king posts with struts and raking queen posts. This new roof was necessary because the 16th century flat-pitched roof had sagged in a number of areas, probably rendering it unserviceable (fig. 6). The east elevation was also re-modelled and the windows were restored to conform with the surviving 16th century pattern (arched openings on the second floor with square openings below). This was as far as the restoration went, as the 18th century pattern of regular bays was retained.

II) The Chapter House Investigations

An outbreak of dry rot led to the lifting of the floors and the removal of infected soil in the toilets immediately north of the chapel, and on either side of the



Plate i) Gray and Atkinson's 1894 Investigations of the east end of the Chapter House (looking south towards the chapel)

intervening F Staircase passage, during the winter of 1994/95. Lying immediately behind the exposed front of the 13th century chapter house, the main area of investigation fell centrally within the former meeting room of the nunnery (Area A; fig. 3 & 14). Initially it was anticipated that the treatment would entail the stripping of the plaster off the lower faces of all the walls. Beyond this, the CAU was to excavate a test pit through the below-floor deposits, down to the level of the chapter house (c. 0.80m depth). Its intention was to gauge the depth of infestation and establish the character of the strata should a decision be made that it had to be removed. The chapter house floor was found sealed with thick rubble make-up, confirming previous suggestions that the conversion of the nunnery, at least at this point, entailed a substantial raising of floors. Testing indicated that the dry rot was indeed deep and the below-floor soil required removal. Recorded and sampled, these dump horizons were then dug out by the contractors to within 0.10–0.20m of the floor, thereafter formal excavation down to this surface commenced. Apart from within a small sondage and cut feature, excavation ceased at this horizon, its compact surface providing an appropriate level for chemical treatment.

Having a thick concrete slab floor, work within the Ladies' toilets south of the passage (Area C) was largely restricted to the recording of exposed fabric.

Nevertheless, falling within the area of the sacristy/vestry, it permitted direct interrelationship between the chapel and chapter house sequence when tied to the passageway sections (Area B).

The natural sub-soil, an orange-brown sand seamed with white marl, was only deeply exposed within the small sondage in the northeastern corner of Area A (1.45m below present-day ground-level). It is overlain by a c. 0.50m thick layer of reddish brown sandy loam discoloured through iron panning ([179]). A 'soil', although gravel lenses were present no 'horizonisation' was evident suggesting turning through either agricultural/horticultural activities. Locally exposed in the basal strata throughout the area of excavation, that this horizon appeared relatively clean and compact could reflect its 'preparation' prior to construction (and probable truncation at c. 6.60m OD).

This was very much a case of archaeology within rooms (Evans 1995c). Of primary college date, they are an arbitrary framework in which to consider the layout of the earlier chapter house/nunnery. Relatively few non-architectural artefacts were recovered (little pot or bone) and much of the phasing rests upon the logic of construction sequence and architectural style. The date of what little pottery was retrieved would be broadly consistent with the documented history: 15–16th century East Anglian Red Wares, an iron glazed sherd and a piece from a small Cistercian Ware cup were recovered from college deposits. Apart from two 13–14th century plain ware sherds, no medieval pottery as such was recovered – the chapter house was evidently swept clean.

The 1894 Investigations

The general development of the range and nunnery has been described in the previous sections. Buried within the fabric of the college, the discovery of the largely intact western arcade of the chapter house in April 1893 generated much interest, with reports carried in the college's magazine, *The Chanticleer*. Apparently the work was undertaken following a suggestion from Rev. Osmond Fisher (Honorary Fellow of the College) that plaster be stripped from the cloister wall, he having noticed traces of the earlier fabric during repairs 50 years prior (Atkinson & Clark 1897: 397). Reflective of the tastes of the day, it was the quality of the Early English architecture that commanded attention (RCHM 1959: pl. 137 & 140). Obviously considered an exercise in architectural recovery rather than excavation, floor surfaces or overlying strata seem to have received little notice.⁴

Inspired by the building's survival, in the following year Gray and Atkinson undertook excavations in Chapel Court to trace the eastern extent of the chapter house. Unfortunately the published notice of their work is not extensive and no archive is known (Gray 1894; mentioned also in Gray 1898: 63–5; Atkinson & Clark 1897: 189–91).⁵ As far as can be ascertained, after first trenching to locate the northeast corner Gray and Atkinson followed the eastern wall south. Again, whilst the recovery of much 'fallen' worked stone, painted glass and some pottery is reported,

there is no discussion of strata or floor levels. Built of Barnack stone, the corner was found to be substantially buttressed with the outer face showing two courses of 'wrought stone'. Below this, a chamfered plinth was uncovered; otherwise the fabric was rough clunch. Along the foot of the eastern wall was found what was thought to be the remains of a clunch-built 'bench'. Noted as standing 10" higher than what should be the floor (based upon the level of the column bases in the west front), their means of calculation implies that they did not actually find, or at least recognise, the floor within their trench.

Taken looking south with the northeastern corner of the chapter house in the foreground, the one apparently surviving photograph of the excavation in the college's archives was presumably taken by Gray for it shows Atkinson and their hired labourers in the background (pl. i). Although largely verifying Gray's description of the fabric, complication seems apparent. In the foreground the plinth seems carved as if to accommodate an underlying feature. Given the recording it is difficult to account for this. Could it be that the 'clunch bench' was an earlier north-south footing that continues beyond the north wall of the chapter house? Similarly, in the wall just to the right of this point the uppermost stone appears to bed upon soil as if an ashlar block has been removed above the plinth. Close scrutiny indicates, moreover, that west of this stone the wall seems truncated. This may relate to no more than the line of a service trench. If so, it could provide another explanation for the spurious clunch bench inasmuch as it may represent a horizontal spread truncated to the west (the northeastern/left-hand corner of the buttress in the foreground has evidently also been truncated down to

plinth level by a service).

The accepted plan of the chapter house is that published in the Royal Commission's 1959 survey. Gray's photograph evidently was not consulted, for it shows that the east wall of the chapter house directly aligned with the buttressed northeastern corner of the Organ Chamber. Whereas Gray's sketch, and the Commission's plan after it, displaces the wall c. 1.00m to the west. During the course of recent fieldwork the wall was cored and found aligned on the Organ Chamber; c. 1.50m wide, it lies approximately 0.40m below the lawn. (To negative result the lawn south of the path was also cored to test whether the chapter house wall-line continued south beyond the buttressed corner.) Restoring the wall further to the east has ramifications for the reconstruction of the chapter house: the 'bay'- distance between the wall and the easternmost pier becomes roughly equivalent to that between that and the central one (c. 3.50m; fig. 23).

Monastic Origins (Phase I)

The fabric of the 12th century chapel transept was exposed within the southern wall of Room/Area C ([190]; fig. 15 & 16). A chamfered Barnack plinth, offset by c. 80mm from the upper face, divided the wall. Consisting of irregularly coursed large clunch fragments (50–80 x 160–200mm) in hard mid-brown mortar, the exposed face below ([194]) appeared vertically trimmed flush with the plinth. There is little stone in the build and it is footing-like (i.e. no facing whatsoever). The western corner of the wall was supported by a stepped buttress carried upon an additional plinth. This is built of large finely dressed ashlar blocks; none occurs beneath the plinth level – it is rubble below. East of its quoins was an exposed 'core' of

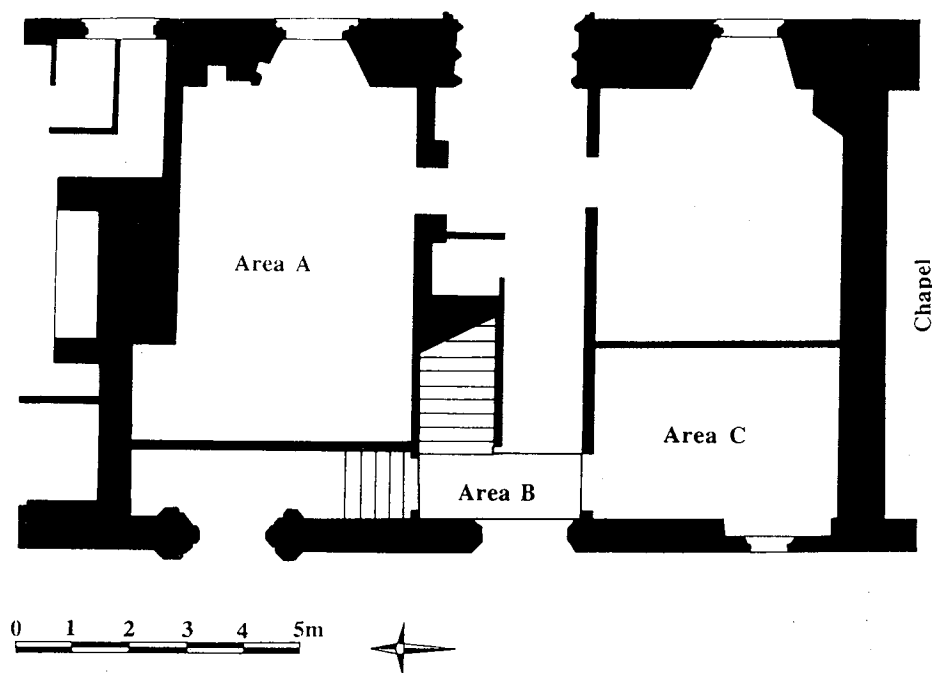


Figure 14. The Chapter House Investigations – Area location

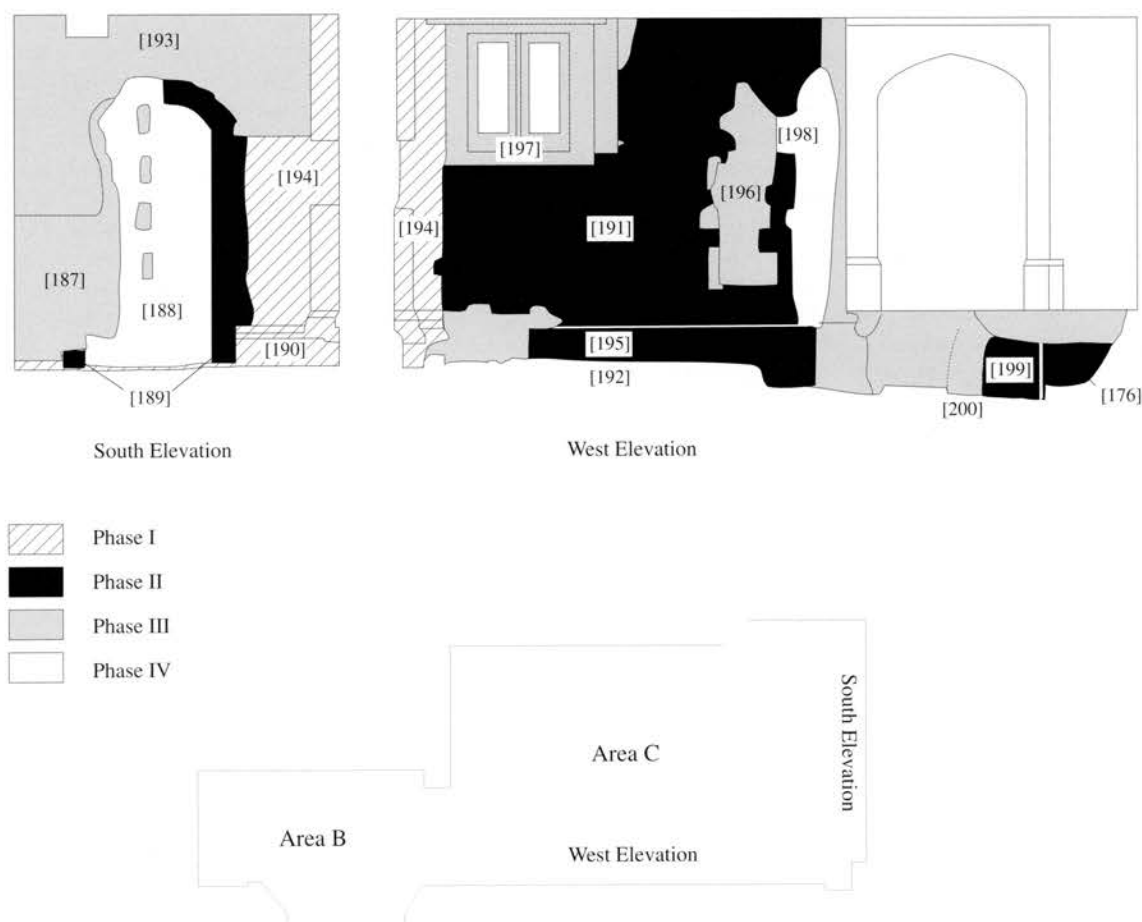


Figure 15. The Chapter House Investigations – Area C, location and key: south elevation, fig. 16; west elevation, fig. 17

uncoursed dressed clunch blocks and smaller fragments bonded in off-white sandy chalk/clunch-based mortar.

A substantial posthole was exposed in section within the northeastern sondage within Area A (F. 51; fig. 18–20). Although truncated, its profile could be observed to a depth of 0.50m; in total, it must have been c. 0.70m deep. Similarly, while it was seen to be some 0.60m across, its top is estimated to have been 0.90–1.00m wide. Flat-based, its lower profile narrowed to 0.20–.25m diameter, suggesting the dimension of the post. The lower fill consisted of dirty reddish brown sandy loam, above which it had frequent small-medium clunch fragment inclusions. The ‘primary’ status of this feature is indisputable, however considerable ambiguity relates to its structural associations. Similarly, in the western half of the sondage (well beyond the diameter of this cut), a surprisingly high density of medium-sized sandy yellow mortar fragments were observed within the lower sub-soil horizon whose derivation is unclear.

Discussion

Based upon established knowledge of the nunnery’s construction, the wall exposed on the southern side of Room C must be of 12th century fabric. What is crucial is the possible indication of its construction level

by the plinth. It appears to mark the division between the upper wall and rubble (mortar-dominated) footing below. Potentially having major ramifications, it is difficult to evaluate this evidence inasmuch as where exposed around the chapel’s exterior its below-plinth foot has had an ashlar face applied. However, that no ashlar continued below this level within the exposed corner buttress could confirm that the plinth originally lay at (exterior) surface level. Within Area C its base lies at 7.12m OD, *exactly the same height as the chapel floor*. This, and the fact that turf-stain was visible on the lower face of the plinth, suggests that the chapel floor lay at contemporary ground-level.

The status of the F. 51 posthole is problematic inasmuch as it cannot be directly associated with a floor surface, suggesting that it pre-dates ground-level truncation. Whilst possibly a ‘marker’ for the laying-out of the chapter house or a scaffold post relating to its construction, it could testify to an earlier structure; the masonry in its fill attesting to a nunnery-association (i.e. not of pre-medieval date). The mortar fragments found in the ‘natural’ soil horizon are also difficult to account for. Again, though they may derive from an undefined ‘early’ chapter house structure, their situation could also relate to unidentified graves (see below).

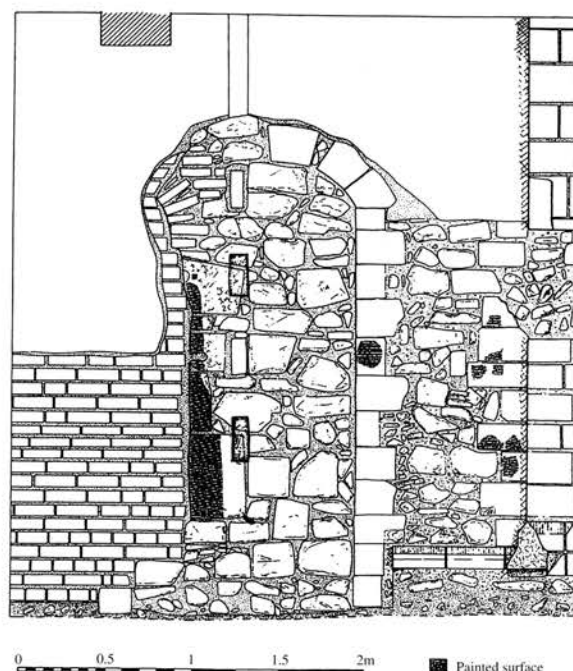


Figure 16. The Chapter House Investigations – Area C, south elevation (see fig. 15)

The Chapter House (Phase II)

A round arch door-frame of dressed ashlar had been set into the southern wall in Room/Area C ([189]; fig. 15 & 16). That it was a secondary insertion was evident by the fact that it cut through the plinth and continues for c. 0.25m below it. 1.25m wide and 2.60m high, the western half of the frame had almost been entirely removed through later alteration and only the basal stone survives on that side. Whereas the lower-most stones on both sides of the frame are Barnack, the masonry above is clunch; 'reddening' was

observed on one stone.

The lower western wall within that room was distinct ([195]; fig. 15 & 17). Unlike the upper portion, it was rendered over with a smoothed brown sandy mortar. Where visible, its fabric consists of regularly coursed small-medium tabular Barnack in very loose sandy grey-brown mortar. At its northern end the wall is finished with large ashlar blocks dressed to a chamfered corner which carry traces of plaster rendering and red 'paint' (see below). The base of the wall *per se* was observed in a sondage, where it was found to be without foundation. Standing 0.60m high, its top was horizontal (i.e. not ragged). Modern intrusions had cut away the junction between this wall and the chapel buttress. However, by the 'logic' of the construction sequence (and its inferred relationship to the inserted southern doorway), [195] must post-date it.

Built of Barnack ashlar, a matching wall was exposed within the Area B passageway trench ([199]; three courses, 0.56m high). Also with a chamfered western return, probing under the Cloister Court flagstones revealed that after 0.40m it ended in a ragged edge, suggesting that it was either trench-built or that it had been robbed beyond this point.

Confirming the results of Gray and Atkinson's investigations, a substantial east-west wall was found to run east from [199] and under the stairs in Area A ([176]; fig. 18; pl. iv). Its southern side stood some 0.30m high and was faced in a 15mm thick, smoothed whitewashed rendering which continued over the [199] stonework. The northern side was ragged having been extensively disturbed. Generally surviving 0.50–0.60m wide, one flush-set stone protruding to a width of c. 0.85m must suggest its true dimension. The fabric consisted of roughly coursed Barnack slabs. These were roughly dressed to lie flush along the surviving face; medium-large fragments of clunch were more roughly set into the core (one piece of

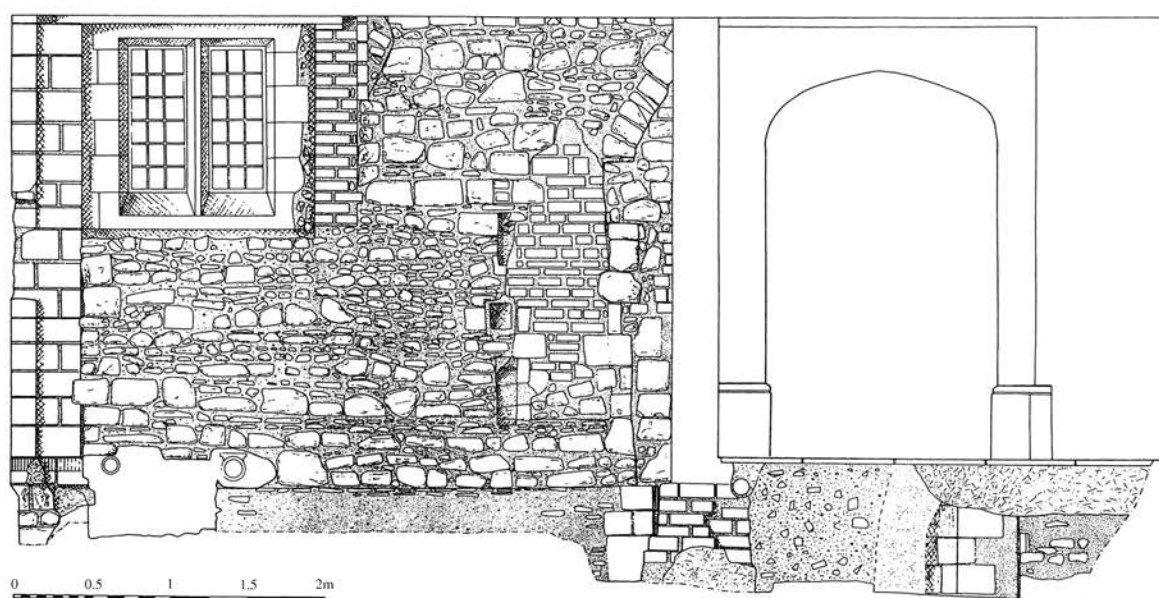


Figure 17. The Chapter House Investigations – Area C & B, west elevation (see fig. 15)

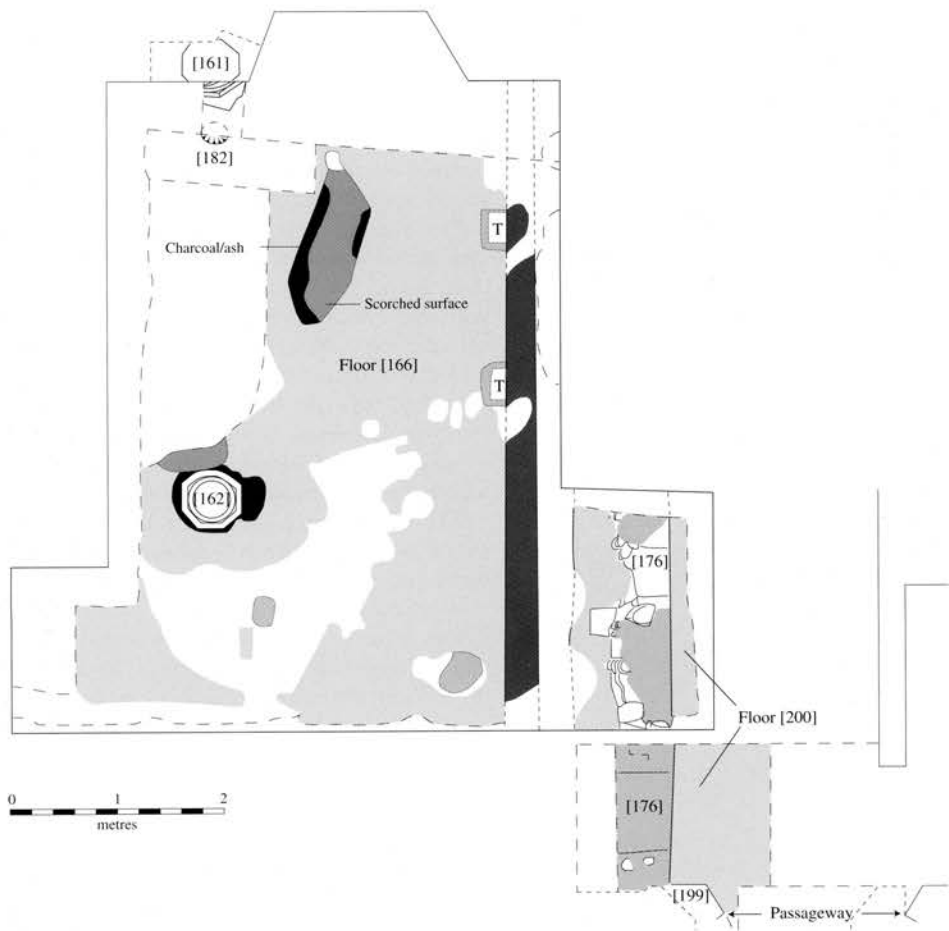


Figure 18. Chapter house plan



Figure 19. The Chapter House Investigations – Area A, location and section guide: north elevation, fig. 21; east elevation, fig. 20 & pl. ii; south evaluation, pl. iv



Plate ii) The Chapter House Investigations – Area A, east wall; note encased pier with moulded mid-rib and cushion capital (left side; see fig. 20)



Plate iii) The Chapter House floor with central pier base (left side; see fig. 18)

re-used moulded stone was recovered). Two mortars were evident: a hard yellow sandy and, within its core, very loose dark brown sandy with almost no bonding quality. Given the size of this wall it is remarkable that it lacked a footing and was only built on a smoothed sandy yellow mortar spread lying di-

rectly upon the truncated sub-soil. A tread surface ran south beneath it across into Area B and survived along the wall-edge within the sondage in Area C, where the floor has little mortar content. This indicates no more than that the [176] wall was a secondary 'build' following general ground truncation and the

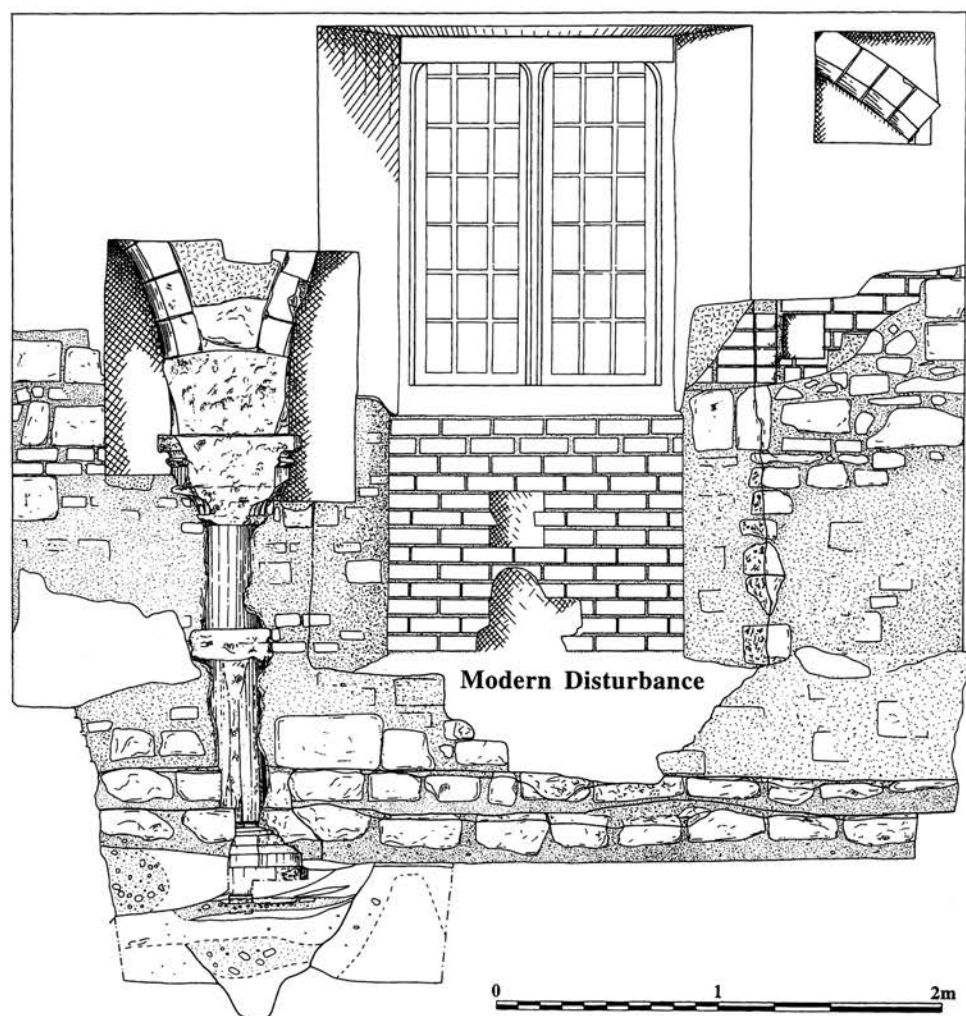


Figure 20. The Chapter House Investigations – Area A, east elevation (see fig. 19 & pl. iv)

establishment of a working surface.

Prior to the current programme, early architectural features had been selectively exposed through the encasing masonry within the eastern wall of Area A. This included the line of a chamfered arch in the top southern corner whose crown would fall just above the window-setting; its northern foot, and that of another to the north, spring from the top of a pier capital whose western face had been carved flush along the line of the eastern wall. The stripping of later plaster revealed a decorated pier in total c. 1.90m high ([161]; fig. 18–20; pl. ii). Unlike the arches and the cushion capital from which they spring, the pier itself is Barnack, not clunch. A chamfered octagonal base carries the shaft that is approximately c. 0.35m in diameter (not fully exposed) which has a moulded mid-ring. An integral vertical rib runs up from the foot to the mid-ring (surviving 40–50mm high; the remainder is truncated, though its line is obvious in the face of the shaft). Its large capital has scalloped and foliated ornamentation. The pier base rests on a large Barnack block, 0.12m high and 0.60–.70m square. Its exposed southern corner has been chiselled off. The stone is probably re-used and the corner re-worked so

as to give it an octagonal(ish) plan more sympathetic to the pier base above. Only the top would have been visible, the rest functioning as a footing. It had been set within a 0.15m deep construction pit and positioned upon a horizontal spread of small Barnack slabs laid on a bed of clunch fragments. Upon placement of the foundation, the pit had been backfilled with crushed clunch.

An octagonal Barnack pier base was exposed in the northern middle of the room ([162]; 0.20m high; fig. 18; pl. iii). Above vertical faces its sides chamfer to a moulded ring and traces of yellow sandy mortar on its top indicate that it also carried a column 0.35m in diameter. The pier appeared to be set on a pad of crushed clunch ([181]).

Although patchy, extending throughout the area (and sealing the foundation pits for the two piers) the chapter house floor consisted of a 10–15mm thick surface of crushed clunch and mortar ([166]; fig. 18; pl. iii). Lying directly upon the prepared surface of the natural soil, locally a very fine, almost polish-smoothed surface survived and there were some indication of re-surfacing. A 20mm high ridge in the floor was apparent along the southern side of the room,

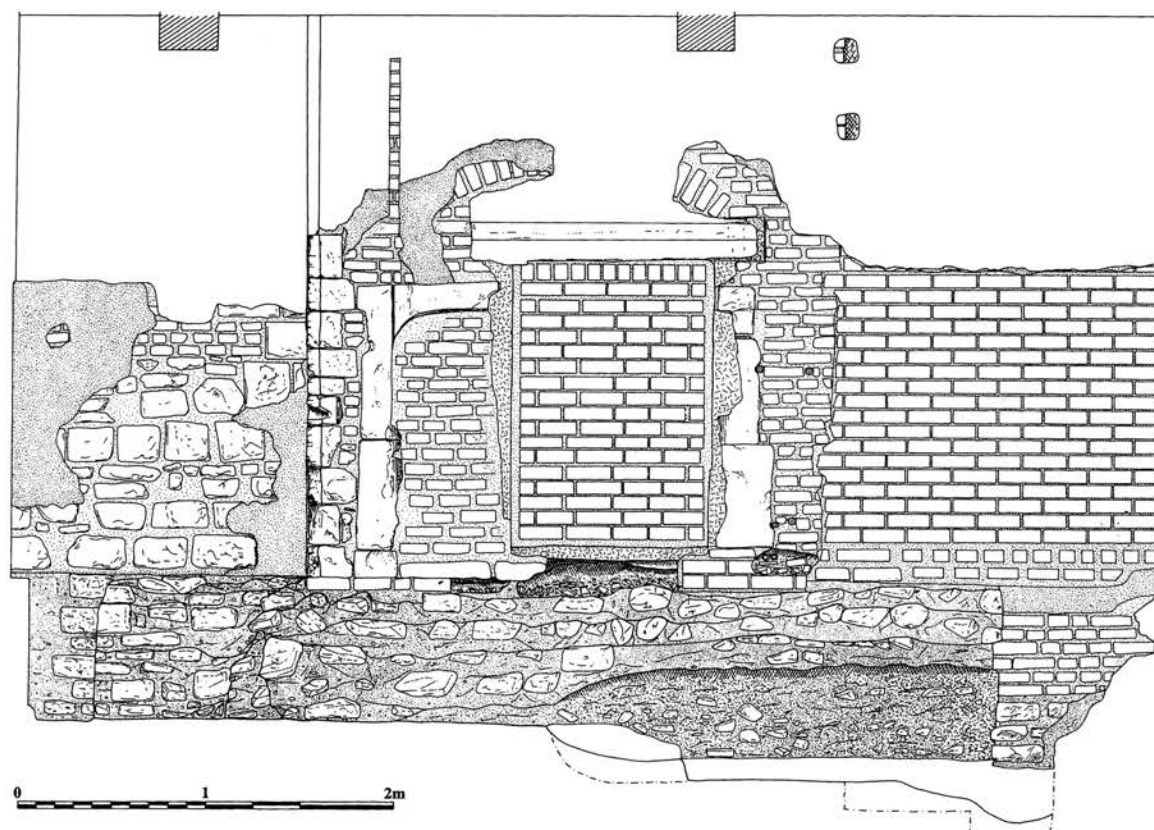


Figure 21. The Chapter House Investigations – Area A, north elevation (see fig. 19)

south of which the surface was raised across a 0.30m wide strip. Two double-length green glazed tiles were embedded along the edge of this marked lip (150–170 x 300 x 30mm). Although the mortar was more robust to the south, it did not carry a distinct surface. This line must, therefore, differentiate distinct zones or a boundary within the building. South of the raised portion the floor ended in a roughly straight edge and an irregular trough, c. 0.30–.40m wide, ran between it and the wall ([176]). All this suggests that a structural feature, probably a raised bench, ran along the foot of the southern wall along whose base lay a border of glazed tiles.

It is ambiguous whether the floor itself north of this line was tiled. Some glazed fragments were recovered from the make-up horizon sealing the nursery remains. Most were recovered in the base of this horizon and a few even sat on the [166] surface, but none were actually embedded within it. Equally, when cleaning this floor cross-hatch lines were found scratched into its western margin, the pattern suggesting guide-lines for the laying of tiles. Yet, if this was so, they were only found over a very limited area. At two points there was evidence of burning directly upon the surface: a patch along the eastern margin and around the central pier base. In the case of the latter, the burnt spread was heaped up around the eastern faces of the pier to a depth of 50mm; the intensity of the burning having evidently damaged the moulding on this side.⁶ These burnt deposits lay directly on the scorched mortar surface and attest that it could

not have been, at least in these two areas, tiled. Therefore, there can only be certainty that the floor carried tiles along the southern bench edge.

Within Area C the upper western wall, built directly upon the (horizontal) top of [195] and extending south to clad the chapel buttress (fig. 15 & 17), consisted in the main of medium-large pieces of clunch rubble ([191]). Roughly coursed by 'zones', some 10% of its fabric consisted of dressed Barnack (up to 160 x 320mm) and smaller tabular pieces; 5–10% seemed reused (dressed, none moulded). The wall was bonded in loose grey-brown sandy mortar; no brick was incorporated within its fabric. In the north, the wall ended with a rough frame of large clunch quoins (one piece of dressed Barnack). Although partially disturbed through robbing and inset by c. 80mm from the chamfered end of the lower wall, this was clearly the frame of a door/passageway. An arch springs from the projected top of this edge to the north. Built of roughly worked and keyed clunch pieces, the steepness of its angle suggests a 'late' pointed form (?13th century). A 'complex' elevation, interpretation is not abetted by the fact that the stone from which the arch springs (?moulded capital) had evidently been extracted.

Discussion

The round arch door within the southern wall of Area C ([189]) stands 0.40m higher than the square-headed door-frame with which it corresponds in the chapel transept interior (1.95m high; RCHM 1959: pl. 138



Plate iv) The Chapter House Investigations – Timber-frame wall (western two-thirds only); note south wall of Chapter House beneath (see fig. 19)

lower left wall). This discrepancy could be accounted for if the later masonry which infills the frame seals an inset panel below the arch or that the roof vault sloped down from north to south – from Area C into the chapel. If, as is most likely, it is a case of the latter, its angle would correlate that from the chapel it opened out onto a stairway – the night stair. Similarly, within the chapel the top of the (infilled) window sill above the door lies 2.30m above floor level. That this was not exposed in the exterior wall, stripped to 2.60m above the chapel floor level, suggests that a recess rakes downward from the outside (Willis & Clark 1886 II: fig. 6; RCHM 1959: pl. 138).

There are basically two ways of interpreting the chapter house/Vestry exposures. The first, that apart from the chapel wall, all the masonry is contemporary and of 13th century date (as the exposed chapter house arcade) and any 12th century precursor of this structure has been totally eradicated and may have been insubstantial (e.g. the F. 51 posthole). Alternatively, the lower portion of the western wall in Area C ([195]) and the east-west wall within the passage ([176]) are 12th century (contemporary with the [189] door-frame), the chapter house being later. The former interpretation would really only be credible if any 12th century buildings in this area were not celared (i.e. it was 13th century truncation which had eradicated their traces). This would accord with the 'floating' situation of the F. 51 posthole. Yet the fact that the chapel-inserted doorway ([189]) is of 12th century style undermines this argument. Although its foot stands 0.20m higher than any observed height of the reduced floor level, the south-to-north slope of

this surface accounts for this discrepancy. Given this, and the fact that the tread/truncation surface ([200]) seems integral to the build of the [195] wall in Area C, indicates that the reduction in level is either contemporary with, or pre-dated, the inserted door (i.e. 12th century).

That walls [195] and [176] both share a tabular Barnack construction (and lack a footing), as opposed to the clunch block construction of the chapter house arcade, suggests their contemporaneity. The crucial relationship as regards whether any (non-chapel) 12th century fabric was exposed in these investigations relates to the upper and lower portions of the western wall in Room C (fig. 17) – are these just two builds or separate building phases? The contrast in their fabric (Barnack *vs.* clunch; rendering on the lower wall) and that the northern end of the upper wall's passage-frame is inset by 0.10m from the lower, indicates the latter to be so – *they must relate to different building phases*. This does not, of course, preclude the upper wall being a substantially later construction (i.e. college-attribution; the arch would have to serve a relief function for the extant passageway). Yet no brick and re-used moulded stone were incorporated and, based upon precedent, this would suggest a pre-Alcock date. It is, therefore, phased to nunnery-usage and its construction associated with 13th century alterations (i.e. rebuilding).

The surface of the wall [195] corresponds to the top of the plinth within the northern chapel wall and its level top must relate to the reduction of its superstructure. It is difficult to account for this rebuilding, perhaps it only carried a timber-frame above.

Alternatively, its demolition may relate to load-bearing capacity – any original chapel ancillary structures may have only been one storey high and were reduced to facilitate two-storey construction associated with the chapter house. The evidently rebuilt door/passageway defined by the chamfered Barnack walls ([199] and north end of [195]) was very substantial: 2.00m wide – 1.70m between the ‘interior’ western chamfered jambs. In its rebuilt form it would have stood some 4.00m high in relationship to floor level; its height presumably relates to the raising of the storey over the chapter house vault.

The tile-bordered raised mortar surface which runs beside the southern wall in Area A probably marks the location of a room-surrounding bench. If so, it would have been c. 0.70m wide. The ‘surface-less’ trough which runs between the wall and floor may have been produced through its dismantlement or simply was below-bench ‘dead space’; the front foot of the bench being carried on the 0.30m wide raised mortar strip.

It is difficult to account for the evidence of very intense, though localised, burning upon the chapter house floor. Its discrete distribution could suggest ‘activity’ rather than catastrophe (e.g. workmen’s bonfires). Yet that burnt deposits lay directly over the pink-scorched surfaces implies something other than a brazier falling over. While the eastern may reflect no more than a ‘huddling’ episode, the intensity of the other (enough to fracture the pier base) indicates great ferocity. Although conversion-related burning of structural timbers retrieved from the nunnery may have been its source, it could attest to a major conflagration; the clay surface covering the burning must reflect secondary ‘tread’.

College Conversion (Phase III)

A large sub-rectangular pit, with a stepped profile c. 0.60m deep cut through the chapter house floor in the northeastern corner of Area A (F. 52; fig. 22). Filled with loose grey very sandy silt with frequent small-medium fragments of clunch and sandy yellow mortar, larger building rubble was recovered from its western quarter and occasional fragments of glazed tile throughout. Reddish brown sandy loam with small clunch and mortar fragments was ‘heaped’ upon the floor beside this cut. This consisted, in the main, of re-deposited natural soils which had evidently been upcast during the pit’s digging. It is difficult to account for this pit. One possibility is that it relates to the extraction of graves from within the chapter house. This interpretation would be supported by the recovery of loose fragments of human bone from the fills (a few skeletal pieces were also found in the overlying make-up horizon).

A single course masonry ‘plinth’ lay upon the floor along the eastern side of the room (0.15–20m high), sealing the F. 52 backfill and encasing the foot of the eastern pier ([168]; fig. 19, 20 & 22). Consisting of roughly dressed clunch blocks, it was generally bonded in off-white sandy chalk mortar and locally carried a smoothed upper surface. Upon it was built a

0.11–17m high stepped foundation ([167]) which projects 0.22–.28m beyond the base of the extant eastern wall with which it is structurally integral ([160]; fig. 22 & 20). Both were built encasing the eastern pier and entailed truncation of its decorative elements and any westward springing features (e.g. carving away of vertical rib and western side of mid-ring/capital). In other words, these elements were cut flush so as to not project beyond the wall face. The wall was observed to stand to 2.00m above its foundation step and must infill all the area beneath the chapter house’s arches. Where exposed in the stripped window recess, the faced rubble-built wall was 0.75m(+) wide. The core generally consisted of medium sized fragments of clunch/chalk bonded in off-white sandy chalk mortar; its face of roughly dressed and coursed clunch/chalk blocks extending 0.15–.20m into the fabric. Red bricks had been sporadically incorporated (55 x 110 x 220mm); their employment was more extensive and regular in the upper northern side. There were also coursed ‘zones’ of large moulded clunch, presumably deriving from the demolition of the chapter house/nunnery. Given the assortment of building materials in its fabric and irregular coursing, this masonry was clearly not intended to be visible and traces of a rough mortar rendering could be distinguished.

Dumped against the foot of this wall and sealing the chapter house remains (including the southern [176] wall) was a c. 0.65m thick dumped rubble horizon ([150]). Consisting of off-white mortar and clunch fragments in grey sandy silt, only very occasional small-medium moulded stone fragments were present. The uppermost 50mm of this deposit consisted of darker ‘mouldy’ loam with few rubble inclusions, in which both bone and clay pipe pieces were present. This would seem to relate to later through-floor soil sifting, and not the main dump horizon *per se*, from which only a few sherds of pottery and painted window glass were retrieved. Although tread lines were observed, no formal surfaces were present within this massive make-up horizon. This being said, the lower 0.15–.25m of this deposit did differ inasmuch as it consisted of darker grey sandy silt with c. 40% mortar inclusions (*cf.* 80% masonry inclusions in the upper horizon); the potential implications of this division will be considered in the *Concluding Discussion*. Generally, the lack of large stone in its obviously demolition debris-derived matrix must reflect the sorting of rubble (i.e. large stone reserved for wall construction). A similar horizon, again largely removed by the work’s crew, also sealed and extended south from the [176] wall in the passageway trench (Area B).

While the fabric of the northern wall in Area A essentially matches that of the eastern (faced rubble-core bonded in off-white mortar, locally including large re-used building stone and red bricks: [155]), its construction differed inasmuch as it was carried on a trench-built rubble foundation ([174/175]) which cut down through the [150] make-up horizon (fig. 19 & 21). While generally c. 0.80m deep (bottoming on the chapter house floor), where it crossed the F. 52 pit the

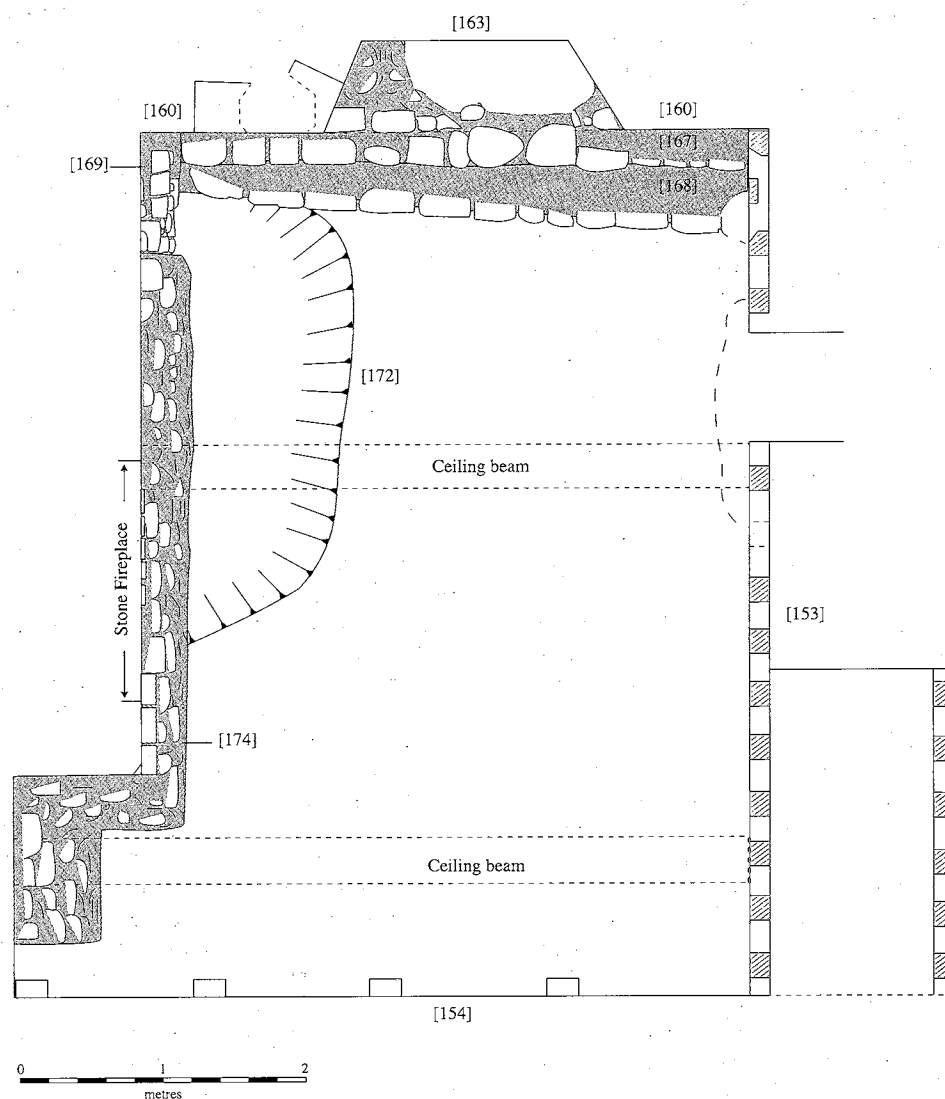


Figure 22. *The Chapter House Investigations – College-phase plan Chapter House beneath (see fig. 19)*

footing deepened to c. 1.00m to compensate for its unconsolidated backfill.

To accommodate a chimney stack/fireplace (matching that within the Fellow's Cloak Room), the wall and its footings projects forward by c. 0.90m. The corner, strengthened by a quoin setting of dressed clunch blocks, is chamfered. The fireplace is c. 1.70m across and 1.40m high, and has a surrounding frame of large dressed clunch blocks. Sealed by a later blocking, the interior back wall was not exposed. Above and east of the fireplace the fabric of the wall was entirely brick and generally laid in English Bond; an elliptical relief arch is incorporated above the mantel.

The wall did not extend over the eastern 1.75m of the room. This, however, seems a matter of survival (alteration), rather than denoting a northern return, inasmuch as the footing continued along this line to the eastern wall. Moreover, the brickwork on either side of the chimney is not symmetrical; the wall must have continued east flush on the projected line of the stack. A brick-built structure was incorporated into

the easternmost 0.85m of the [174] footing (fig. 21 & 22). This consists of red bricks bonded in a hard off-white chalk mortar (50 x 110 x 220–230mm; [169]) that is carried on a clunch footing. It conjoins the [174] footing and, in all likelihood, was built in the same construction trench. Given our knowledge of the layout of the building range, the [169] brickwork is probably the southern face of a brick-vaulted cess pit (its vault springing north under the Cloak Room toilets).

Truncating the [150] make-up dump and running along the foot of, and continuing below, the extant southern wall within Area A was a 0.15–0.30m deep trench ([151]). The side of this concave-profiled cut extended 0.35m north of the wall and, if symmetrical, this obvious construction trench would be some 0.90m wide (southern side not observed below stairs). It was filled with light brown-yellow sandy mortar with clunch and white mortar fragments ([152]). Above the trench *per se*, this footing was built as a narrow free-standing red brick sill with smoothed faces to a height of two courses. To a depth of 0.10m its face

was blackened, suggesting mould staining below a suspended timber floor. It carries a timber-frame wall which runs along the southern side of the room and abuts the eastern wall ([153]; fig. 22; pl. iv; see Evans 1995b: fig. 10). Built of 'rock hard' oak, only one element had required replacement. Two posts set symmetrically within the frame run from the sill up to the ceiling plate (150 x 110mm). These support range-longitudinal ceiling beams (carried on moulded knees) that are tied into the northern wall. Stud-timbers (170 x 120–130mm) are set at intervals of 0.16–.25m in peg-doweled mortise-and-tenon joints into the sill, top-plate and mid-rail. The structure is simple inasmuch as there is no cross-bracing, nor was re-used timber apparently utilised; carpenter's marks were observed.

The stripping of plaster revealed an original door-frame in the eastern end of the frame wall. Very narrow (0.60m wide and 1.80m high), it is set between the end post and another forming the western side (one intervening stud ran down to join its top). The internal sides of the posts are moulded as a frame and the carving continues around the slightly arched piece set to form its top which also has carved triangular recesses. A worn recess mid-way up the west side of the frame obviously held a latch-plate.

Small split-wood staves run horizontally between the studs/posts. Three sets of stave locations could be identified in each of the verticals below the mid-rail. These support wattle and daub panels, which survive intact in the eastern and western ends, with vertical split and roundwood wattles tied with string onto the staves. The white chalky daub is cob-like with dense organic inclusions (straw). With a smoothed plaster face (and evidence of at least one re-rendering), there were no traces of painting. Locally the frame was patched with bricks. Later 19th century alterations to the wall includes the insertion of new doorway, wall-papering over the frame and, later still, rendering with a plastered mortar face carried on horizontal lathes.

In Area C the arched doorway within the north transept wall was infilled with irregularly coursed medium-large clunch fragments (fig. 16). Bonded in an off-white sandy chalk/clunch-based mortar, many displayed traces of moulding implying their re-use. Set into the lower eastern edge of this build was a dressed clunch frame with a moulded edge, c. 1.30m high. Evidently the side of another fireplace, it is capped by a (later truncated) mantel 0.30m thick. Above the fireplace proper and integral with its build, is a brick relief arch. Much graffiti was found cut into the frame of the fireplace, which also carries traces of red and blue paint. The arched doorway in the western wall of that room was similarly infilled with a 'jumble' of irregular (non-)coursed large clunch blocks and smaller rubble, bonded in soft off-white mortar (fig. 17). The insertion of this material clearly involved the robbing of a large moulded stone at the foot of the arch proper.

Discussion

Distinct 'acts' of early post-chapter house construc-

tion were identified, which by their scale, building materials and dating evidence must relate to the establishment of the college (the probable extraction of graves; the construction of the east wall infilling chapter house colonnade, and blocking of the chapel transept and Cloister doorways; make-up dumping; and, finally, the construction of internal walls). The argument that the F. 52 cut relates to the removal of burials is entirely inferential. Yet it is difficult to imagine what other activity it might be associated with. Given the pit's situation and our knowledge of the layout of the chapter house it seems unlikely that it could, for example, have related to the demolition of early structural features. That, moreover, it definitely cut the chapter house floor, but was not itself apparently sealed by a surface at this depth, indicates that it post-dates nunnery-usage and must, therefore, relate to the construction of the college.

This phasing relationship also implies that the east wall 'plinth' also relates to college construction activities. When first exposed, its stepped footing was thought to be a within-chapter house bench/step. However, its relationship to the pit (and the evidence that the upper 'step' was of the same build as the standing wall itself) indicated that this could not be so. Nevertheless, two factors indicate that the laying of the lower step of this footing was clearly a separate construction act from the building of the wall itself. Firstly, its slightly divergent alignment and, secondly, whilst the vertical rib on the eastern pier was encased by the lower foundation step it had been laterally truncated above this level. The interrelationship between the two 'steps' could encourage more inventive interpretations, and these will be explored below (see *Concluding Discussion*). However, it probably reflects no more than phased construction with the lowest foundation step only roughly laid-out and the truncation of the pier ornament not decided upon until the true line of the eastern wall was achieved.

Other factors also point to a 'step-by-step' approach to the college's construction and disjunctions of planning are evident. For example, although perhaps indicative of no more than the completion of a 'job', the lower face of the eastern wall was rendered over. This could suggest that the height to which the floor surface was to be raised had not been established from the beginning. Similarly, while it is logical to have constructed the eastern wall before raising floor levels to revet make-up dumps and consolidate standing architecture, that the timber-frame southern wall was not tied into the eastern wall (the latter having to be recessed to accommodate it and was rendered behind it), implies that the line of internal walls within the range had not been established from the outset of construction.

The toilets currently located on the eastern side of the chimney stack are shown as such on Willis and Clark's plan (1886 II: fig. 2). The evidence of the investigations – the occurrence of a brick vaulted cess pit at this point integral with the northern wall footing – indicates that garderobes were located there from the time of the college's construction (the side of

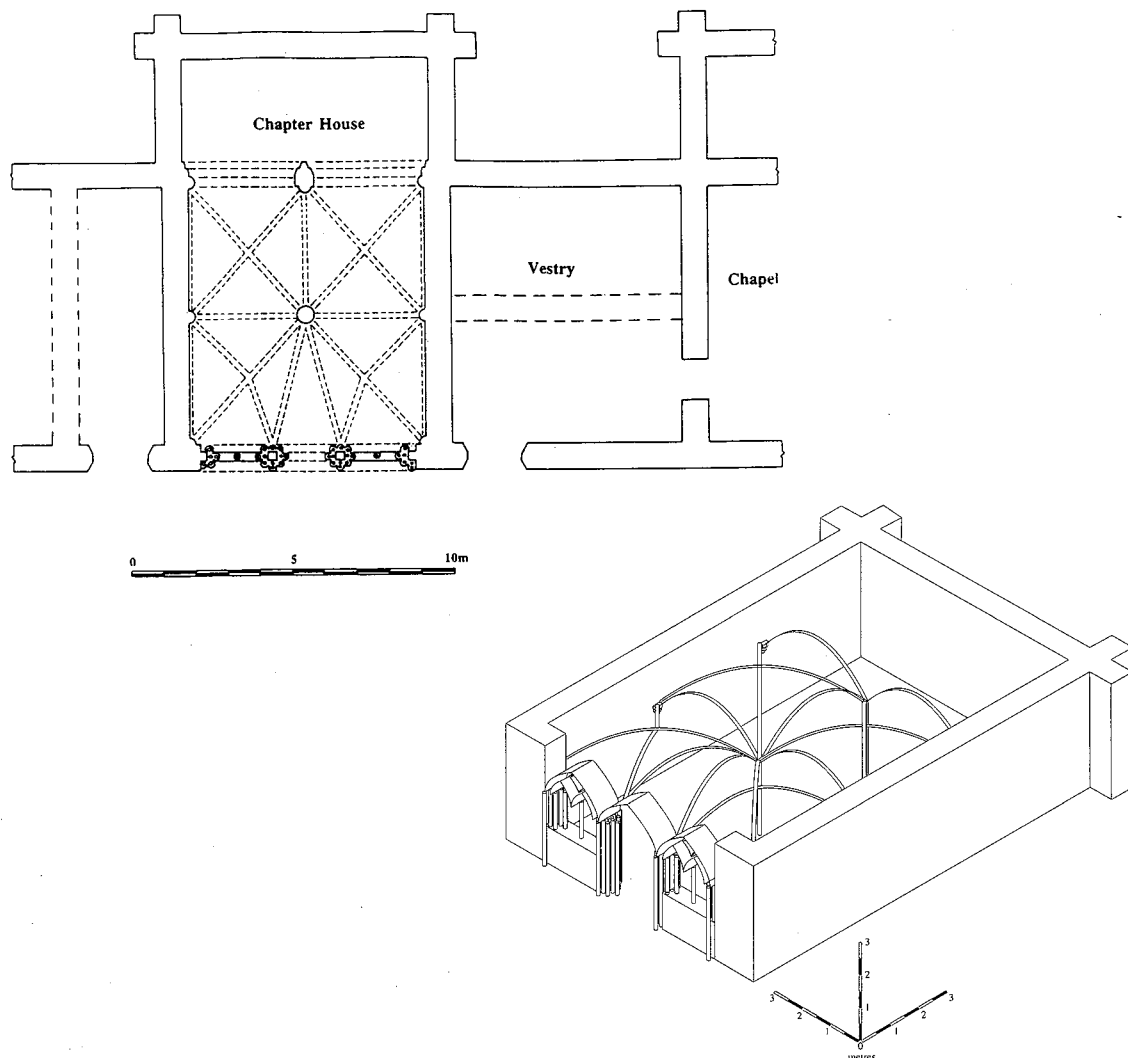


Figure 23. Chapter house plan and reconstruction

the chimney stack presumably supporting through-storey shafts).

Later Alterations (Phase IV)

Although there was much evidence of later patching and insertion (e.g. fireplace blocking), it was not the intention to record recent alterations to the rooms in detail. Amongst the events attested to is the construction of the western yellow stock brick wall in Area A, which relates to the exposure of the chapter house arcade in 1893. Windowless, it provides a stage-like backdrop to the 'sculptural' display of the frontage; it was during this century that the room was converted into a lavatory. Despite the fact that the nunnery-phase surface within the southern room (C) lay at roughly the same level as in Area A, no primary college-phase dumps make-up its level. Truncated through the laying of a concrete floor slab, the floor sequence 'jumps' from the 12–13th to the later 19–20th century.

Concluding Discussion

The bottom of the exterior plinth within chapel

transept wall directly corresponds with the level of the chapel floor – 7.12m OD (present-day Cloister Court level is c. 7.45m OD). The base of the inserted door lies c. 0.25m deeper (6.85– 90m OD). While its lower insertion may relate to a reduction of surface level on its northern side (and presumably the 'trimming' of the chapel footing), if giving access to the north-lying night stair its depth might just relate to its connection with the flight. Yet the highest level at which the chapter house/Vestry floor was observed is 6.62m OD in the sondage in the northeast corner of Area C. This surface sloped down quite markedly across the passageway and lies at 6.52m OD at the foot of the [176] wall (surface level in the arcade well is at 6.59m OD).

The chapter house/vestry floor lies 0.50–.60m below the chapel floor level and, more importantly as indicated by the level of the transept plinth and the termination of the buttress' ashlar face at this depth, contemporary ground-surface. Utilisation of an offset ground-level plinth to divide the wall from footing is a common feature of Norman building. Nor is there anything remarkable in the fact that the chapter house

was semi-basemented as this permitted high vaulting within the meeting chamber which otherwise would have had to interrupt the first storey. Yet it is surprising that what has been thought the chapel-connecting 'vestry' should also have been lowered. Equally difficult to envisage is how, if so down-cut, access was gained into the chapter house. It presumes that either it was surrounded by a sunken veranda-like 'well' or, more likely, an extensive portion of the cloister was reduced. By extrapolation of levels relative to ground-surface the same must also apply to the eastern back side of the building, for it has a ground-level plinth at roughly the same depth. Evidently visible, by inference it too must have been artificially exposed. It is an extraordinary conclusion that ground surface should be so widely truncated, but the evidence is unequivocal. One explanation for this relates to the apparent absence of wall footings associated with the non-chapel nunnery fabric inasmuch as lateral down-cutting to the sub-soil would have provided a more stable base from which to build.

Receiving little notice, alterations to the fabric of the chapter house are apparent in its western arcade. Beneath both windows, the wall core appears to have been removed (down to one course above the plinth) and re-set between the ashlar blocks supporting the column settings (RCHM 1959: pl. 137). The line of the cut is obvious inasmuch as the capstone 'flags' of the arcade frame have been carved away, evidently entailing the re-setting of both intermediate columns (i.e. is a post-13th century alteration). On the southern side a block of clunch masonry projects by 0.20m at this point. Flush with the face of the college range, it is evidently bonded into and integral with the re-laid core. Projecting above the level of the moulded ground level plinth, its function is inexplicable and heavy-handed restoration does not abet interpretation. Gray thought this a bench for the nuns and illustrated it extending south along the cloister to the chapel (1898: fig. III 'd'). As restored, its northern and southern ends are ragged, indicating its continuation. Narrow and high, this cannot have been a bench. That, on the one hand, it seems to pertain to a re-setting of the central arcade shafts suggests it to have been nunnery-related. On the other hand, that it projects above the level of the plinth could indicate a rise in ground-level and, therefore, possibly be college-associated, at least insofar as the chapter house sequence is conventionally understood.

Equally puzzling is the ashlar wall which forms the southern side of the arcade's 'welled-surround', which is otherwise built of stock brick consistent with the date of the architecture's exposure. Extending over the ground-level arcade plinth, this seemingly early east-west wall (running beneath the cloister walk flagstones) is not accounted for in any description of the college's building history. The status of the glazed floor tiles set before the arcade are similarly ambiguous. Whilst they may have been arbitrarily placed at floor level during restoration (and could derive from anywhere within the college), if approximately *in situ* their situation would also question the

chapter house's sequence. It is unlikely that they would have been laid within a cloister walk and were probably within a building. Together with the southern ashlar wall, they suggest a western extension to the 13th century fabric. Finally, is the evidence of the grave slab partially exposed in the arcade well just below reduced ground-level. Its only partial exposure would suggest that it is *in situ*; such slab-covered graves usually lay at or just below ground surface and were not deeply buried. Its occurrence at this depth would, therefore, also attest to general early ground-level truncation.

Whilst the investigations largely confirmed the layout of the chapter house as proposed by Richmond (e.g. the central pier) and the basic observations of Gray and Atkinson (e.g. southern wall-line), some of the results of this and the 1894 excavations do not tally. Primarily, the largely clunch construction of the eastern end's main walls (and west front) and their 'bench'. These differences could just be a matter of separate 'builds' employing different materials. Yet, the fact that floor level was apparently not recognised could suggest alternative interpretations, especially concerning the status of the spurious clunch bench. It could broadly correlate with Phase I posthole and be an earlier wall foundation exposed through the down-cutting of the 13th century chapter house (and re-use of masonry). Similarly, the quantity of artefacts and dressed architectural fragments recovered by Gray and Atkinson have little correspondence with what was found in Area A. It suggests that only after consolidating the exterior walls of the college/nunnery range did Alcock have its eastern end demolished, pushing the standing fabric into the sunken room. Given the limited scale of their investigations, the apparent quantity and size of the artefacts they retrieved could also suggest the dumping of nunnery-derived 'refuse' into the area.

All this belies the apparently pristine quality of the restored 13th century chapter house and suggest that the architectural history of the nunnery is far more complex than established narratives would allow. By its style, the 12th century round arch of the sub-plinth door inserted within the transept wall indicates that some manner of building lay immediately north of the chapel prior to the chapter house. From the inferred existence of the doorway's sloped roof arch (down into the chapel), this probably correlates with the opening of the night stair. If so, its insertion need not directly correspond with the reduced floor and wall level within Area C (i.e. the below-plinth level of the door could just relate to connection with the stairway). While probably associated with the lower build of the 'low' western wall ([195]), if the door opened onto the night stair then the location of the latter should logically have run flush with the wall and not rise up within the room itself. From this it could be inferred that an even earlier room/building, probably of timber and perhaps corresponding with the F. 51 posthole, went undetected under extant masonry features within this room (e.g. the west wall and concrete slab).

Similarly, Gray and Atkinson's description of the fabric of the 'back' side of the chapter house does not correspond with the Barnack slab-build of its southern wall found beneath F Stair ([176]), which directly matches that of the lower western wall in Area C ([195]). The chapter house was predominantly of clunch construction and this could suggest that the southern side incorporated and ran east from an earlier wall – the northern side of a semi-basemented building/room built against the chapel. How far this extended north is unknown. Nevertheless, the existence of pre-13th century (chapter house) nunnery buildings within the eastern Cloister Court range is conclusively demonstrated.

Is there any way to account for the features identified, or at least newly highlighted, within the west front of the chapter house – the 'Nun's bench', the southern ashlar wall and, possibly the floor tiles? Given that the chapter house remained 'operative' to the end of the 15th century (the Bishop of Ely is known to have delivered a decree there in 1487; Gray 1898: 42), these must relate to *alterations* to its fabric – they do not attest to pre-conversion disuse/demolition. One possibility is that they relate to one of the major fires known to have occurred within the nunnery during the 14th century. This could, of course, concur with the traces of intense burning found upon the chapter house floor (and the red 'paint' noted on the vestry fabric). If so, it is conceivable that floor levels were then made up by 0.15–.30m. Whilst this would correspond with the height of the Gray's raised ('Nun's') 'bench' and the evidence of possible

rebuilding of the facade, it would, however, imply that all the investigations have missed a higher secondary floor level.⁷ Given these arguments, the 'clunch bench' which Gray and Atkinson recorded in their excavations could (if laterally truncated) correspond with the [168] 'plinth' running along the foot of the eastern wall within Area A. Rather than a conversion-phase footing of quite separate build from the fabric above, it could have continued and joined with the 'bench' as a raised secondary floor confined to the eastern end of the chapter house. This interpretation would accord with the surfacing upon [168] and that it only encased the [161] pier, whereas the upper 'Alcock' wall truncated its moulding. The 'plinth's' surface height (0.15–.20m above floor level) would generally agree with the depth of the arcade alterations, and its divergent alignment in relationship to the range's wall could also be enlisted in support; however, nor does its orientation match that of any of the chapter house walls.

III) The Halls and Kitchen Range

Recording occurred during refurbishment of the halls and kitchen in July and August of 1995 (fig. 3). Whilst largely of an architectural nature, during the works the opportunity was taken to record a large foundation within a contractor's service pit (Dickens & Evans 1995).

During the renovation the wooden panels which surround the lower walls of the hall were removed exposing the 'great' fireplace situated within the eastern

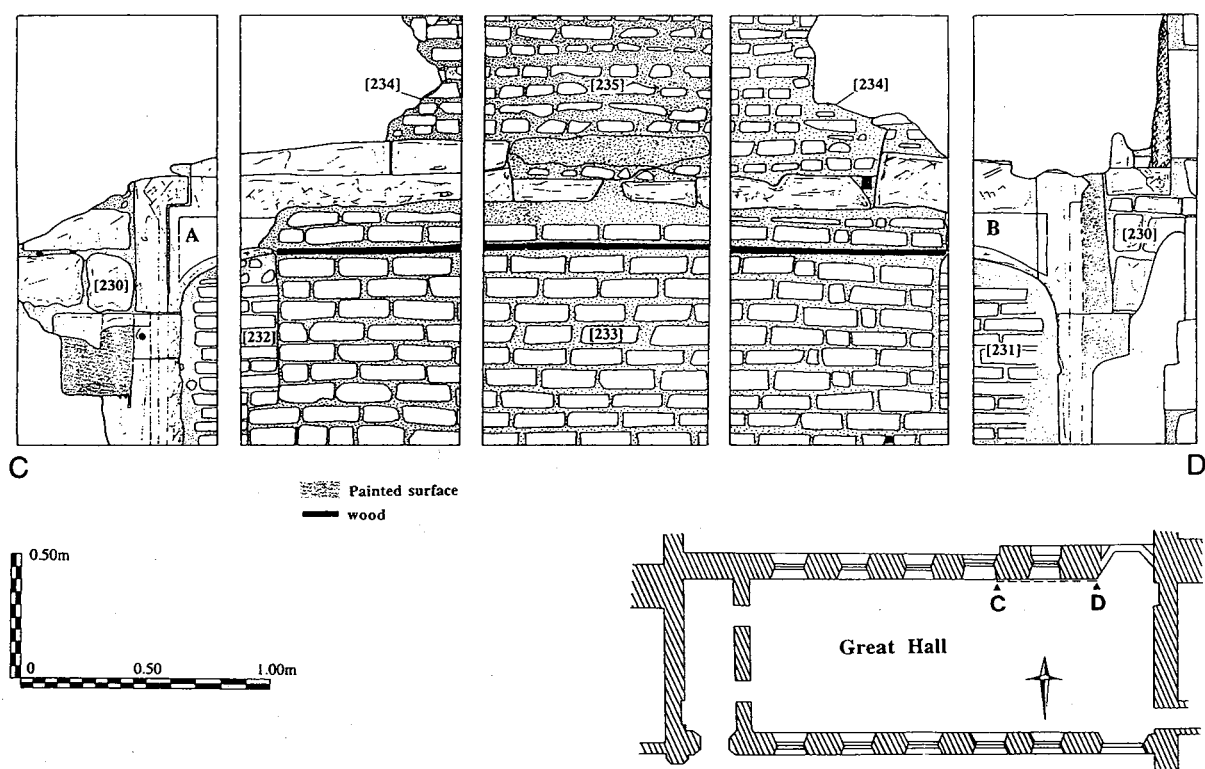


Figure 24. Hall fireplace

end of the north wall beside the oriel window (fig. 24). With dressed clunch blocks closely set within the frame, it is indeed monumental: 4.00m wide externally (3.50m internally) and, as observed, 1.20m high. However, when drawn its foot was masked by a base-board panel and it is recorded that in 1875 a new wooden floor was laid 12" above the Ketton stone slab surfacing (0.30m; Willis & Clark 1886 II: 162). The true height of the fireplace must therefore be c. 2m. Despite considerable damage, it is clear that the clunch frame had been ornately decorated. Triangular panels in the corners of the mantel bear deeply incised carving (see Dickens & Evans 1995: fig. 2A & B).

Much brick was evident within the seemingly original wall which surrounds the fireplace. Little of the fabric was, however, exposed as a large patch of (re-used) brickwork has been inserted through the plaster cutting away much of the mantel ([235] in cut [234]). Whilst there was no evidence of a relief arch in the wall above the fireplace, with double chimney stacks extending up on either side (there is a window directly above) such load-displacement may have been unnecessary. Both sides of the fireplace interior were infilled for some 0.50m with handmade red brick 'stacks' ([231] & [232]), which must relate to a re-routing of lower storey chimneys up through the interior of the fireplace itself. Their insertion would mark the decommissioning of the fireplace as it would have been 'unpresentable' in this manner, and it was probably then that the mantel carving was trimmed flush to facilitate the panelling. The fireplace was otherwise infilled with poor quality red and yellow bricks ([233]). These appeared to be of a later 18–19th century type and could relate to the insertion of the [235] brickwork above the mantel, possibly in support or alteration of the window (the sills are recorded as being lowered in 1801–2; Willis & Clark 1886 II: 160).

Willis and Clark referred to the hall fireplace: "A large *original* fireplace, much mutilated, remains in the north wall behind the panel work" (1886 II: 161; emphasis added). This may suggest that they considered it attributable to the nunnery but, as their main concern was with the fabric of the college, it is perhaps more probable that they considered it an original *college* feature. Gray and Brittain did not consider its origins, but rather its place in the life of the hall:

a place of much importance, if we may judge from the frequent references to it in the accounts.... For this fireplace the College set up a 'mantil-tree' and made 'doggs of our own stuffe' in 1574. 'A pare of fyre-irons to burn sea-cole for y^e hall' was got in 1572 and bellows in 1600. (1960: 67–8).

'A place of much importance' – the hall fireplace is substantially larger than the other Alcock-attributed fireplaces exposed during the recent investigations, which were, moreover, without decoration. Intended to heat individual rooms, the similarity in the construction of these and that in the hall would suggest broad contemporaneity (the fireplace within the

Prioress's Room carries similar decorative mantel carving). Significant in the assessment of the fireplace's period of use is the surrounding plaster. Having an inscribed ashlar pattern, none extended over the infilling brickwork. This supports the assertion that the 'stack-infilling' was not just a narrowing following subsequent use – bare brickwork would have been unacceptable – but related to its decommissioning when the hall was first panelled in 1703 (RCHM 1959: 94).

Removal of the panels along the southern and northern walls of the hall allowed some observation of their fabric through 'holes' within the plasterwork: largely coursed clunch blocks ([230]) with red brick sporadically incorporated throughout. The inclusion of brick could indicate that much of the construction is later than recently thought and, contrary to the conclusions of the RCHM (1959: 83 & 92), Alcock's conversion did not just entail a facing and re-roofing of the Nun's refectory but substantial rebuilding.⁸

A c. 0.45m wide ochre-brown painted band runs along both the northern and southern walls and extends onto the fireplace frame; its base lies some 1.15m above the present floor level. Below this, timber pegs hammered into the wall have been cut off. These were clearly for the attachment of facing elements confined beneath the painting, possibly shorter panelling or some manner of wall-flanking benches. The hall was apparently hung with tapestries, which are last mentioned in 1614–15 (Willis & Clark 1886 II: 161); the height of the painted band may reflect the level to which they fell.

The Stair Tower

A massive trench-built footing, constructed of clunch rubble and yellow mortar with alternating horizontal bands of silt clay throughout ([207]), was exposed in service trenches within the exterior northwest corner between the hall and the kitchen (fig. 25). This was overlain by another footing-build of clunch/chalk blocks set in a hard white mortar in which no soil banding was evident ([208]). Excavation by the contractors revealed that the masonry extends south below the northern wall of the hall, which appeared cut down upon it (the foundation of the hall range was not itself exposed). However, as indicated by a cut through the floor at this point, it did not continue beyond the thickness of the wall into the building interior.

Although extensively truncated, the footing was clearly very substantial (1.20m+ deep). Extending over an area of more than 2.60 x 2.90m, its size would suggest it supported an exceedingly heavy structure. Willis and Clark refer to a staircase entrance to the hall at this point prior to 1875, for which they record a blocked doorway in the northern wall (1886 II: 161). This was replaced by a internal stairway that was dismantled in the course of the recent demolition of the servants quarters. Access to this staircase was originally via a doorway in the north wall of the hall landing that was apparently later replaced by a smaller doorway slightly to the east (Willis & Clark 1886



*Plate v) The Kitchen Range – Interior elevation
(see south end/left side fig. 25)*

II: fig. 19 'c'). The absence of brick/tile in the exposed footing supports Willis and Clark's assertion that the staircase carried by the footing was nunnery rather than early college-related. The only other possible explanation for the masonry is that it infills a major cut feature, such as a well. This, however, would not correlate with its very regular horizontal banding (i.e. subsidence would be expected).

To the north was a further small exposure of a similar 'soil-banded' footing ([203] & [204]) in which, again, no brick or tile was observed. 0.20m+ deep, the masonry was truncated to the north (and possibly the south), giving it the appearance of a footing running at right angles to the north-south wall (east side of kitchen range). However, it is equally possible that this represents the northward continuation of the main stairway footing.⁹ The base of the foundations of the kitchen range proper, again a college 'work' (see below), lay on top of the lower portion of the footing ([207]). There is, therefore, some ambiguity concerning its upper build in the east ([208]) inasmuch as its top lies above the level of the college-phase foundations and, presumably, contemporary ground surface. This either suggests that it represents a later (Alcock) rebuild of the nunnery stair or, more probably, that it was contemporary with the lower footing but [208] was a clad core 'free-standing' within the base of the tower.

Kitchen and Upper Hall Exposures

The lower exterior elevation of the eastern wall of the

kitchen range was recorded (fig. 25). Projecting south on this line, the eastern face of an internal wall (dividing the kitchens from the hall range) was also drawn upon the removal of its applied tile cladding. Between the two, the fabric was found to be continuous. The footing consists of roughly coursed clunch, limestone, brick and tile set in a loose pale buff mortar (0.40m depth; [201], [202] & [224]). Upon this, and in places the distinction between the two mortars was very clear, is a slightly more formally, though still quite roughly coursed wall ([209] & [225]). The lower 1.20m of this build consisted of clunch blocks (100–200 x 150–400mm) with brick and tile set in a fine pale buff mortar, above it is more formally coursed and constructed from larger rough dressed clunch blocks in which no brick or tile was evident. Within the southern interior elevation this was capped by the Ketton slab flooring of the first storey hall. In their study the Royal Commission ascribe this wall a 13th century date. However, the presence of brick/tile within the footing and wall (apparently integral and not later inserted) indicates an early/primary college date. Apart from the possible stairway footing, there is no direct evidence as such of the nunnery at this point.

A doorway was cut through the fabric just north of its corner with the hall range and a clunch frame, apparently rather older than the work itself, inserted ([210]). Of 15th century four-centred type, from the yellow brick fragments which infill the frame's bond with the clunch wall it was probably set during the 18th century. Later still, this was converted to a window by the insertion of a 'two-light' frame and the area below infilled with red brick ([212]; 20th century). These are obviously very recent alterations. The doorway was inserted to provide access to the Small Hall block (with kitchen annex beneath) built in 1875 at the northwestern corner between the hall and kitchen range. It was upon its demolition in the early 1960's that the frame must have been converted into a window, and the two ranges extensively clad in 'new' brick (with remnant primary college fabric left protruding through the face of the kitchen range).

Within the second storey Upper Hall (only established in 1967) both the internal and external elevations of the former north gable wall were recorded. As indicated by the interior face (previously masked by a false timber partition; Dickens & Evans 1995: fig. 5), it displays the same large clunch block-build as the eastern kitchen wall, and the inclusion of brick/tile indicates that it is attributable to 'Alcock' (or shortly thereafter). The north-facing elevation revealed the brick gable and rolled stone moulding of the previously external face (Dickens & Evans 1995: fig. 6). These external features of the Upper Hall roof were eventually incorporated within and hidden by the short extension which joins it to the 1638 building to the northwest. At this time a square-headed doorway ([216]) was inserted, cutting out the earlier arched window frame; the surrounding brickwork suggests that these alterations date to the late 18th or 19th century.

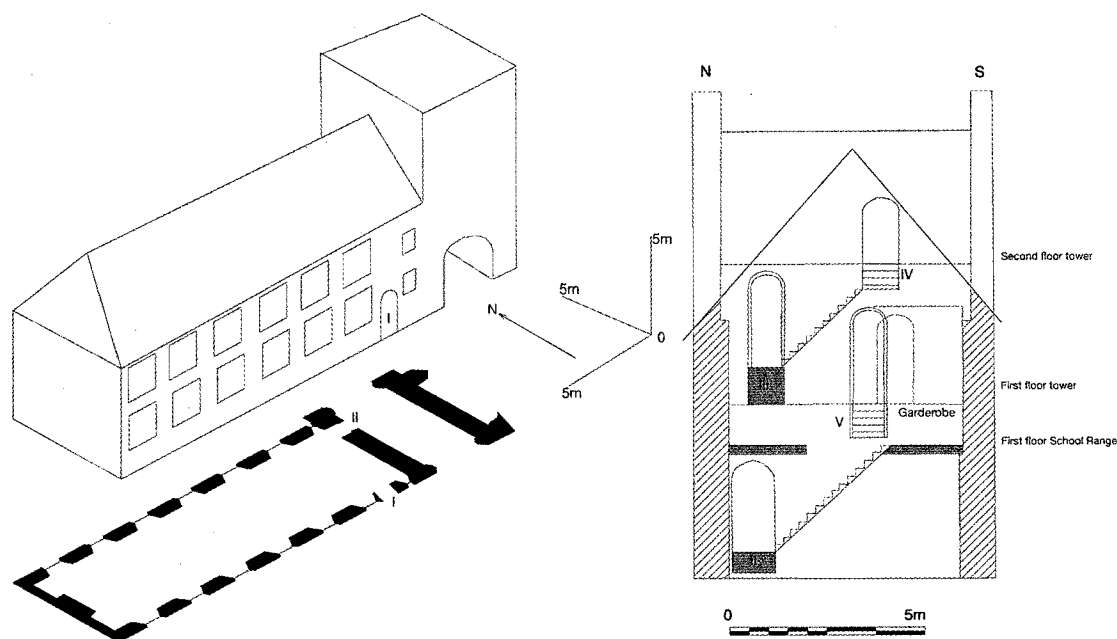


Figure 26. Reconstruction of School Range and Gatehouse (16th century; note Gatehouse windows not indicated); right, eastern elevation of west wall of Gatehouse

Discussion

Apart from the exterior stair tower, based upon this recording alone there would be little direct evidence whatsoever of the nunnery. The early fabric of the hall, kitchen/Upper Hall range generally corresponds with instances of primary college construction recently exposed elsewhere in Cloister Court inasmuch it is of a massive 'shell-type'. What distinguishes this specific range is a lack of re-used moulded stone and its relatively uniform, large clunch block-construction. Somewhat surprising given the inferred demolition of the Refectory range, this suggests 'fresh' derivation from a quarry source. The expediency of Alcock's building may be reflected – reducing the nunnery where necessary and re-using material to initially establish a range to house the fledgling college (possible the eastern). Once operational, further construction could occur at a more relaxed pace which would then require 'imported' building materials.

IV) The Gatehouse and School Range

From work in the halls it was possible to establish the character of the early college fabric – large clunch block construction with levelling courses of brick and tile. This is in contrast with the generally smaller clunch and Barnack rubble of the nunnery as visible within the east range of Cloister Court. Recording occurred during renovations to the gatehouse and the western School Range during the autumn of 1997 (Dickens 1998). Although the building works were extensive, they resulted in only limited exposure of the early fabric. However, it was sufficient to determine that no nunnery-attributable fabric is extant in this area. Later alterations aside, it is all of early/'primary' college date, and this is even true of what founda-

tions were seen. Lifting of floors in the range allowed for limited observation of underlying soils. Again, this was to negative result and no features were present. Admittedly conditions were far from ideal and minor features could have escaped detection. Yet, the below-floor soil appeared sterile and there were no spreads of mortar and rubble which would have been expected had nunnery buildings stood on its axis.

The Grammar School Range

Built in 1503–7 in two storeys (the upper floor was only added in 1718), in its original form the range west of the gatetower was found to be a simple hall-type structure (fig. 26). Wall construction was predominantly of large squared clunch blocks, laid in fairly crude courses with occasional brick inserts to level-up; its footing consists of clunch rubble with small brick/tile inclusions. The western wall, as rebuilt in 1718 (RCHM 1959: 85), is entirely of brick in an irregular English bond. Otherwise, the clunch-build continues upwards almost to the first floor ceiling, where it is abruptly replaced by the much later brickwork of the second floor. As the walls rise the size of clunch blocks used decreases, a pattern even more marked in the gatetower.

At two points within the southeast corner of the range there are exceptions to the dominant clunch fabric. On the ground floor, inside what is now the Porter's Lodge, the eastern end of the southern wall is not clunch into the corner. This is now occupied by a hatchway which, in part, probably matches the location of a small window visible on Loggan's print, but of which no direct evidence was exposed. East of this is a late brick infill, but to the west is a much earlier brick construction faced with mortar on its western edge. This butts directly against the start of the clunch-build at whose eastern end the blocks are neatly

squared-off; there is no indication of its later truncation. The significance of this is not obvious, but it could indicate a southern doorway (fig. 26.I). Immediately above the small window, narrow exposures on the first floor revealed that the wall was constructed from clunch blocks. However, from a height of c. 0.80m this was replaced by brick at least up to the ceiling, suggesting another infilled window. Considerably smaller than the other windows within the original elevation, the easternmost were probably stairlights (see below).

At present there are ten windows in the south wall; another on the ground floor has been cut out by an internal doorway. The north wall has five windows and two doors on the ground floor; there were seven windows on the first floor. All the windows have been much altered. Those on the ground floor were formed by a technique recorded elsewhere in primary college constructions. They are spanned by massive wooden lintels, averaging 0.20m high x 0.60m deep x 2.20m long, above which are brick relief arches whose ends rest upon the lintel; the arches are infilled with large blocks of clunch. Although presently the windows on this floor are a mixture of half- and full-bay length, the exposed fabric shows that originally all were half-bay. The original form of the first floor windows is more difficult to determine. Whilst all in the south wall had flat lintels, they were formed from much slighter reused wooden beams in sets of three. These apparently were also originally half-bay; some are now lengthened to full-bay with extensions cut through the relief arches of the ground floor windows below. With the top of their arches built entirely in brick, four of the first floor windows in the north wall have a different construction. Above one, however, a reused timber lintel had been exposed in the wall which had been superseded by the later design. This suggests that all the arched window tops are secondary and that originally all the first floor windows were flat-topped half-bay like the ground floor.

The ground floor is divided into seven bays by ceiling beams, however there is no evidence of any cross-walls in the primary layout. The earliest evident are two partially surviving wooden-framed partitions which flank a passage south from the western doorway (Staircase B). The westernmost has been cut through, presumably to allow insertion of, or alteration to, the staircase. On its western side (within a modern cupboard) are traces of a simple painted decoration. Part of the eastern partition continues to the south wall, but is not bonded into the clunch. Indeed, there is a plaster render between them. Given this and their awkward relationship to the primary arrangement of windows (the fenestration leaves little scope to sympathetic interior division), these walls seem secondary additions.

Portions of five fireplaces survive within the ground and first floors of the range. The RCHM suggests that originally the school had a fireplace at each end, the westernmost being moved from its original position in 1718 to its present location against the western partition (1959: 85). This tallies with the evi-

dence observed. However, it is not clear where the RCHM would put the eastern end-wall fireplace. There is no trace of one in that wall (the common wall with the gattower), which was probably crossed by a stairway rising to the first floor. Alternatively, the end of the school was marked by a secondary wall further west. Traces of a brick wall were uncovered on the tower side of Staircase A (soft red bricks – 230 x 100 x 60mm – laid on bed in English bond). Projecting the line southwards suggests that it could join with the brickwork along the eastern side of a window. This may provide a context for the faced bricks discussed above; the c. 1.00m gap between the face and the possible wall may indicate a point of access. Yet it is by no means clear that the brick wall was an original feature. Indeed, comparison of the brick size with those in the original window relief arches shows that they are larger (230mm long compared to 200mm). Therefore, this cross-wall too is secondary.

Otherwise the fireplaces are all contained within the large central brick stack. The RCHM presumes dates to the period immediately after the suppression of the school in 1570, and certainly this was a secondary feature. Only one of the fireplaces was fully exposed. The main structure is in brick with a substantial clunch frame and mantel that carries extensive graffiti. Amongst the carving is the date '1600'.

There is no evidence to indicate the exact location of a staircase from the ground to the first floor of the Grammar School Range in its earliest form, although one must have existed. Nevertheless, inference can be made from the floor plan. The ground floor layout at this period has seven opposed pairs of windows on the north and south sides. The two easternmost, however, are significantly smaller than the rest and there is also the suggestion of a possible doorway in the southeast corner. These features, together with the form of the doorway in the east wall (the Porter's Lodge door; fig. 26.II), suggest that originally a wooden staircase rose directly from the east door to the first floor of the range. Entrance to the school itself was through the proposed southern doorway, thus separating the function of the school from the college proper.

The Gatehouse

Pivotaly linking the Grammar School Range and the Master's Lodge, the internal arrangement within the tower was complex. Examination of the fabric between the east elevation and the north wall of the range shows that they form part of a coherent build. Immediately inside the Porter's Lodge doorway (fig. 26.II) the north wall is constructed from very large squared clunch blocks (up to 820 x 450mm). These continue through the build exposed in the doorway (the external face, under the tower, having been later clad in limestone). Immediately inside the doorway the clunch has been trimmed leaving the blocks protruding to form the sides of the doorway itself. The cutting is of a high quality and the angles sharp. This formation of the corner angle within single blocks suggests that this opening is contemporary with the



Plate vi) The Gatehouse – Green-bar painted first floor gatehouse room; note marble painted frame of original fireplace visible through panelling (RCHM © Crown copyright)

original building plan and not, as proposed by the RCHM, a 19th century insertion (1959: 85). That the doorway is not later is further supported by comparison with the window immediately south of it. Also supposedly 19th century, this clearly (and crudely) has been cut through the existing wall fabric and incorporated stock brick within its build.

If the Porter's Lodge doorway was a late feature simply inserted to provide access to the Lodge, then its form is curious. While externally the height is 2.00m, through the thickness of the wall it rises to 2.86m. There would be no reason for this exaggerated roof angle if it was only a ground floor entrance. Accordingly, it may have been designed to contain a rising staircase (see above). The 'rising' form of this doorway was repeated in two others within the elevation. The blocked opening, almost above the lodge doorway, is 2.40m high on the room side and 3.13m externally (fig. 26.III). The entrance to the upper tower room has the opposite pattern, the roof sloping down from the room through the wall (fig. 26.IV). Taken together, this suggests an early system of access arranged across the face of the elevation. The stairs are gone from the ground and first floor openings (now having different uses), but survive in the entrance to the upper tower room. There the removal of wooden stairs revealed a much worn and earlier flight of three stone steps. Most of the next step down had been truncated, however, enough survived to indicate that the stairway was beginning to turn and descend across the face of the elevation down to the northernmost first floor doorway.

The southern entrance to that room is more complicated with different phases of use. Presently there



Plate vii) The Gatehouse – Detail of green-bar scheme with faint impression of wallpaper pattern; note wall-hanging tatters lower left (RCHM © Crown copyright)

is a large opening, 3.00m high, from which stone steps rise up to a landing before the door. Both appear late. Its roof, within the thickness of the wall, is a simple brick barrel vault. Running longitudinal to the extant doorway (and clearly unrelated to it), this evidently had originally been a garderobe whose dimensions are almost identical to that identified in the upper tower room (2.50m high and 0.74m wide). At its northern end a 'passageway' (faced with blue-painted hair plaster) within the body of the wall had been roughly blocked with brick. The insertion of the doorway and 'passageway' through the garderobe presumably gave access onto a staircase down to the ground floor door (fig. 26.V). This implies that in its earliest version there was no direct access to the rooms of the gatetower from the Grammar School Range. Entrance was made to the first floor room from the stairway within the Master's Lodge to the east. From here egress was through the northern door of that room up the staircase and in through the second floor doorway. Subsequently, perhaps following the suppression of the school in 1570, or later when the tower rooms ceased to be part of the Master's suite (c. 1636–7), access to the lower room had to be altered. A new opening, through the existing garderobe, was made to allow stairs to descend through the wall, probably connecting with the existing stairway to the (Porter's Lodge) door on the ground floor. Therefore, the tower rooms could still be gained without enter-



Plate viii) Master's Lodge with panel wall left; clunch-built west wall of chapel right, with arch of viewing niche visible above inset cupboard at north end (RCHM © Crown copyright)

ing into the body of the former school building, then given over to college accommodation.

The first floor room was evidently of some status and has retained evidence of several decorative schemes. Beneath the later panelling, which also divides the room into two unequal parts, survived painted decoration. Broad green bars (0.18m wide) with black borders divide the walls into panels (c. 2.20 x 0.64m), whose background and infill are painted white; the brown marbling upon an original fireplace in the west wall seems contemporary (pl. vi). Traces of either earlier wall painting or the undercoat for the green-and-white pattern are visible as patches of black and salmon pink. The green-bar scheme respected the doorways, suggesting that all were still in use. This would give a date of pre-1637, which is not inconsistent with the copper-based paint used. The conservation report, however, suggests that the paintwork is more likely to be a little later, perhaps late 16th/early 17th century (see Curteis in Dickens 1998: Appendix 2). Upon the paint are vestiges of wall-hangings and wallpaper that were sealed by the extant wooden panelling. While the latter is of 18th century attribution, there is some doubt whether its placement in this room is primary as the 'ghosted' pattern of wallpapering behind it appears to be of a 19th century type (pl. vii).

The second floor room was largely stripped of any wall covering allowing detailed observations to be made of its large clunch block fabric, which survives

in remarkably pristine condition. All three doorways, two in the west wall, one in the east, have four-centred arches and appear original. The eastern now opens into a small cupboard which the RCHM suggests originally led onto a staircase into the drawing room of the Master's Lodge (1988: 85).¹⁰ It seems more likely that this small barrel-vaulted space also served as a garderobe (traces are visible in its southern wall of a small blocked window). The door in the southeast corner is to the spiral staircase leading to the tower roof; that immediately north gives access to the room itself. The other main feature within the room is a fireplace (as other primary college examples). At 2.70m above the floor is a row of wooden peg inserts that probably held a rail for the suspension of wall-hangings. Stripping of the ceiling revealed the tower's original timber roof, which was recorded in detail by T. Baggs (Appendix 1 in Dickens 1998).

Discussion

Whilst the construction of the gatetower may have been begun during the Alcock's lifetime, as suggested by the RCHM (1959: 84), its build has been demonstrated to be continuous with the Grammar School which was not begun until at least 1503, three years after his death. The date by which the tower rooms became incorporated within the Master's Lodge is unknown, although the RCHM record that they had been his since at least 1573–74 (1959: 96). The evidence of its much altered access suggests that these cham-

bers had, in fact, been the Master's rooms from the outset. The arrangement of stairways and doors indicates that entrance to the tower rooms was from the Master's Lodge; entry into the upper tower chamber was possible only from the first floor of the tower itself. As appropriate to the Master, both rooms were well appointed, each with a garderobe and fireplace. When the link between the Master's Lodge and the tower chambers was severed (the latter were exchanged for the 'Old Hall', now the 'Prioress' Room, in 1636–7), a new access had to be made to the first floor of the tower that did not require passage through the Master's rooms. This was achieved by using the existing staircase from the eastern School Range doorway (the Porter's Lodge door) to reach a stair inserted through the wall into the northern end of the first floor garderobe. Entrance to the second floor remained as before; these access routes were still independent of the former Grammar School Range.

In 1718–20 major reconstruction and alteration work was carried out affecting the tower. Both ranges, west and east of the gatetower, were raised to three storeys. No evidence was observed to indicate contemporary stairway arrangements but, given the scale of the reconstruction, access to the tower rooms was probably moved inside the west range, with the two former staircases removed.

The School Range observations confirm what has been suggested by the historical records, that this building dates to the earliest years of the college and has no nunnery predecessor. It also demonstrates several phases of alteration to both fabric and function, and, more importantly, provides a much clearer impression of the earliest version of the building, the Grammar School itself. Apparently without internal ground floor division, it had an open-hall layout typical of school buildings of the time.¹¹ Access to it would have been through the postulated southern entrance, whereas the floor above would have been gained through what is now the Porter's Lodge door from where a stair rose directly to the first floor. Thus the school, whose pupils were drawn from the town, was separated from the 'cloistered world' of the college.

V) The Master's Lodge Viewing Niche (with C. Begg)

In 1997 the panelling was replaced within the easternmost first storey room of the Master Lodge (Begg in Dickens 1998). This exposed its finely panelled 'early' north wall and the clunch-built west wall of the chapel, the latter obviously dating to Alcock's reduction of the nave (pl. viii). Within it was exposed a vaulted recess 1.55 across, 1.60m wide and 0.75m deep; its base lies 1.05m above floor level. Spanned by an elliptical red brick arch, it is integral with the fabric of the wall. A cupboard, probably of 18th century date, has been inserted into its interior, whose situation made recording very difficult.¹²

The west wall still carries large patches of 'early' plaster rendering which continue across the frame of

the recess and through its interior. Faint traces of paint locally survive both within the latter and on the wall itself. In the back of the recess the top of a rectangular opening could be made out in the gap between the arch and the cupboard. 0.70m wide, this is off-centre within the recess and has been infilled with clunch rubble and yellow brick. Its blocking obviously post-dates the plaster as it also faced the southern side of the rectangular aperture; the render pre-dates the cupboard.

It is difficult to account for this intriguing feature. The back of the recess corresponds with the position of the Rustat Memorial in the west wall of the chapel. Whilst the infilling of the rectangular opening probably relates to the setting of the plaque, given that its sides are faced this cannot account for the opening's existence. In other words, it seems a college-primary feature; the memorial is of late 17th century date and probably by Grinling Gibbons (see Renfrew & Robbins 1990). The only plausible explanation is that this represents some manner of viewing niche or hagioscope onto the chapel. It is possible that it originally carried an oriel window which spanned recess, only later being reduced to the smaller rectangular opening (and then plastered over).¹³ Alternatively, from the outset it might only have consisted of the smaller aperture. Whatever its scale and sequence it is tempting to attribute this through-nave observation to the Master. However, given that the first and second floor rooms in this range were apparently only annexed by the Master in the 19th century, previously being college chambers, this seems unlikely (Willis & Clark 1886 II: 170–1). Otherwise, who was viewing cannot be determined.

VI) The New Library Site

As a result of evaluation fieldwork during 1992, in March of the following year a two week-long excavation was conducted on the site of the new library located on the Jesus Lane frontage before the eastern end of the chapel (Evans 1992; 1995b). Whilst the initial trial work produced intriguing results, they were not felt to warrant full excavation and only a sample of the area was further investigated (c. a third; 117.5sqm). Apart from the main area of investigation corresponding to the building's footprint, a trench was to be excavated extending down to the Jesus Lane-side wall in order to investigate the thoroughfare (Trench IV; I–III being assigned in the evaluation; fig. 27).

Lying at 6.10–.50m OD, the gravel sub-soil was overlain with 0.85–.90m of cover. The 0.20–.30m thick lower horizon consists of a mid grey-brown slightly clayish sandy silt loam. Whilst no 'horizonisation' was evident, suggesting that it had been mechanically turned through arable/horticultural practice (C.A.I. French, pers comm.), it had the appearance of a leached palaeo-soil typical of gravel terraces.

The evaluation demonstrated that substantial cut features of medieval attribution lay sealed by a lower 'buried' soil in which midden-type deposits were ap-

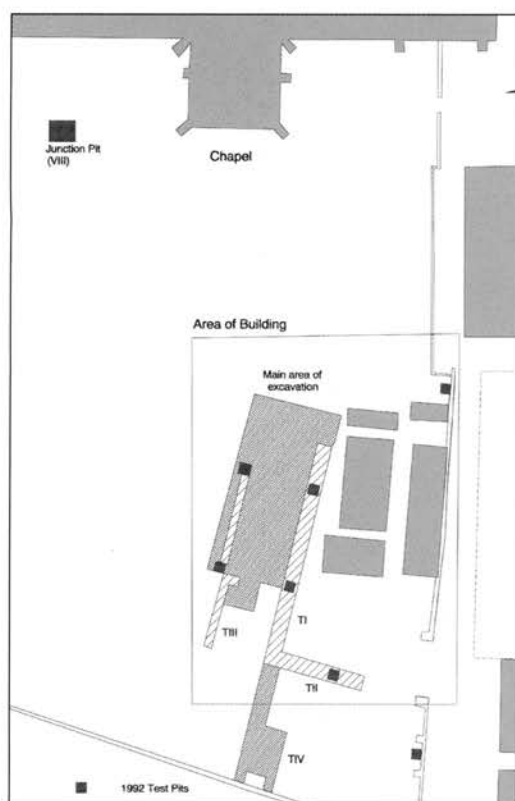


Figure 27. The Library Site – Location plan

parent; this in turn was overlain by the garden horizon. Therefore, within the main area, the excavation first involved machine stripping of the garden deposits down to the lower soil and, only following test pit sampling of that horizon, reduction down to the gravel sub-soil.¹⁴

Not situated in the core of either the nunnery or college, the excavations can be considered a study of 'waste ground'. With only few major archaeological events, it lacks the kind of dramatic build-up of strata or intensive structural sequence characteristic of urban archaeology. Whilst not spectacular, the results provide pertinent information relating to the site's respective institutional economies and, perhaps more importantly, insight concerning activities masked behind their dignified facades. This is most obvious in relationship to college usage. Historic views of the town's colleges, for example Loggan's later 17th engravings, offer images of well-ordered formality and all that this implies *vis-a-vis* enlightenment philosophy ('geometric space wherein rational people did rational things'). What the excavations reveal are a variety of relatively mundane support activities that these omit – middening, quarrying, fabric maintenance and garden re-working. In short, they permit a glimpse into the 'backspace' of historical institutions and reflect upon the college as *process*, as opposed to planned 'monument' (see Evans 1990 and Evans & Pollard forthcoming concerning the 'archaeology of institutions').

A more specific concern in relationship to the early



Plate ix) The Library Site – Looking south towards Jesus Lane from the top of the Chapel tower; note situation of Trench IV at foot of lane-side wall

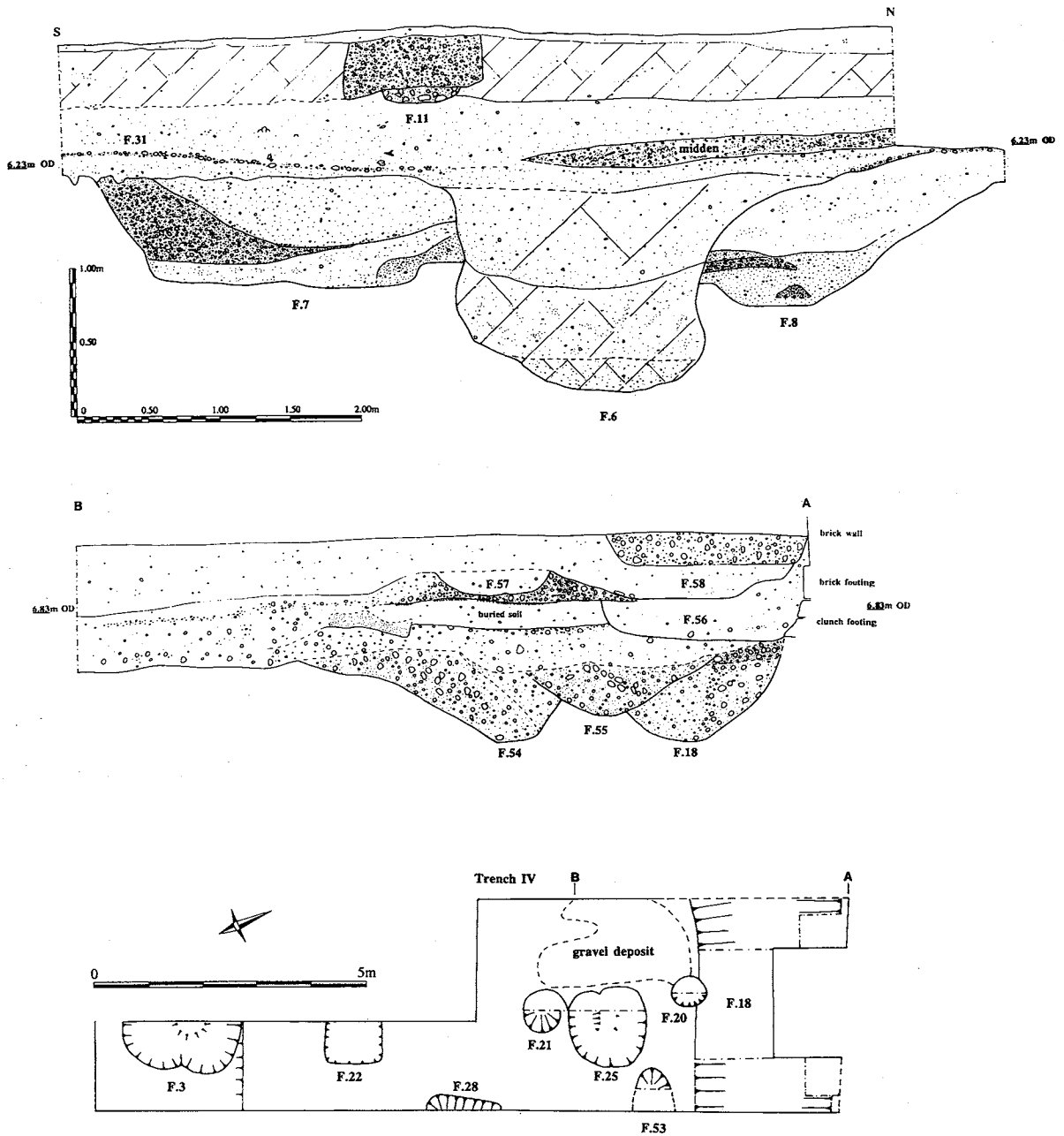


Figure 28. The Library Site – F. 6 & 7 section (top); Trench IV, plan and section

layout of the nunnery is that the site fell within the area of the Church-/Fair yard, where the nuns had been granted the right to hold an annual fair by King Stephen, later known as Garlick Fair (August 14th & 15th, plus later the 16th). This was apparently bounded by a 'mud wall' and entered by a gate opening onto Jesus Lane. Upon its inclusion within the Master's Garden the fair was moved to the western side of the college, the area of Garlick Fair Lane (now Park Street), where it continued until the early 19th century (Gray 1898: 49–50, fig. III). Some records seem quite explicit in their situation of the fair yard south of the chapel: "Item for ledling ij paynes in the south wyndowe there [in the chapel] next to the garlike fayre crosse" (Gray 1898: 50). Nevertheless, it is diffi-

cult to tie down the date at which the fair yard succeeded to the Master's Garden, if indeed this was the case (the garden was assigned to the Master 'from early times', with the surrounding brick wall built, in part, in 1681–2; Willis & Clark 1886 II: 179; see Evans 1995b: 2–4 concerning the site's map evidence). F. Jones, former College Archivist, argued that Gray misinterpreted the documentary evidence and that from the outset the fair was held on the western site (now the Hockey Ground). She claimed that a Roger Garleck, a neighbour of the nuns, lived in this area between c. 1228–58, and provided the source of the fair's later name (Jones nd.)

Nunnery Activities (Phase 1)

Re-cut ditches and other features were exposed over the end of the lane-side trench (IV; fig. 28; pl. x). Along its southern edge was a broadly concave-profiled ditch surviving to a maximum width of 1.00–1.20m and depth of 0.50–0.60m (F. 18). It was filled with orange brown sandy fine-medium gravel throughout, but with a propensity for larger gravel along the southern lane-side. The feature appeared backfilled, presumably anticipating make-up/widening of the lane, of which a horizon of coarse gravel within its upper southern profile attests to. F. 54, another ditch, which could only really be distinguished in the western section, appeared to run slightly further south-over-west. Truncated, it was 1.80m across (total estimated width, 2.00m) with a 'V'-shaped profile 0.55m deep. Lenses of orange sand were observed along the southern side, and heavier gravel in the north, of its mid grey-brown sandy gravel fill. Cutting both of these, F. 55 was a broad 'U'-shaped ditch 1.30m across and 0.40m deep. Filled with grey-brown sandy fine-medium gravel, coarser gravel was distinguished down the southern edge.

Little of these ditches were excavated *per se* and it was difficult to recognise their individual fills in plan as opposed to section. They were, therefore, 'collectively' excavated within metre-wide slots along the foot of the trench sections. Upon removing the fill from the western, a circular cut feature was exposed (F. 19). 0.85m in diameter with near-vertical sides coming down to a flat base 0.45m deep, it was filled with light grey-brown sandy silt with gravels; fragments of daub and a single sherd of Roman pottery were recovered.

A series of possibly discrete (non-linear) features

were also present. Recognised in section (only) and cutting ditches F. 54 and 55, F. 56 was 0.40m deep and 0.70m across. Filled with dark grey-brown sandy silts, it could either be a 'linear' or a pit. F. 53, located on the northern side of the lane-side ditch sequence (just cutting F. 54), seemed to be either a large sub-circular cut feature or the butt end of a ditch. 0.95m wide with sides sloping down 0.60m to a tightly concave base, it was filled with reddish brown sandy silt with moderate-frequent gravel inclusions. A distinct horizon of homogeneous grey-brown sandy silts, up to 0.30m thick, bedded across the collective upper profile of these features ([072]). It produced the only direct dating evidence for the lane-side sequence – approximately a third of a St Neot's type dish of later 13th century date.

Ditches F. 18, 54 and 55 were clearly successive lane-flanking drains. The occurrence of other features (F. 19, 53 & 56), whether the butt ends of ditches or major postholes, only along the southwestern margin of the trench must attest to a boundary division and/or some manner of lane-side structure. The 13th century pot recovered from the sealing horizon would provide a *terminus ante quem*. Certainly the absence of brick/tile in the fill of these features would suggest an early date (pre-14/15th century) and, the general paucity of finds, a low density of usage.

Along the southern side of the main area of excavation was excavated a northwest–southeast oriented gully, F. 10. Terminating in a sub-circular butt, this concave-profiled feature narrowed (c. 0.30m wide) and was shallower toward the east (0.12m deep when compared to 0.26m in the west). Definitely sealed by the 'buried' lower garden soil, it was filled with a mid grey-brown 'gritty' silt clay. Although dating evidence

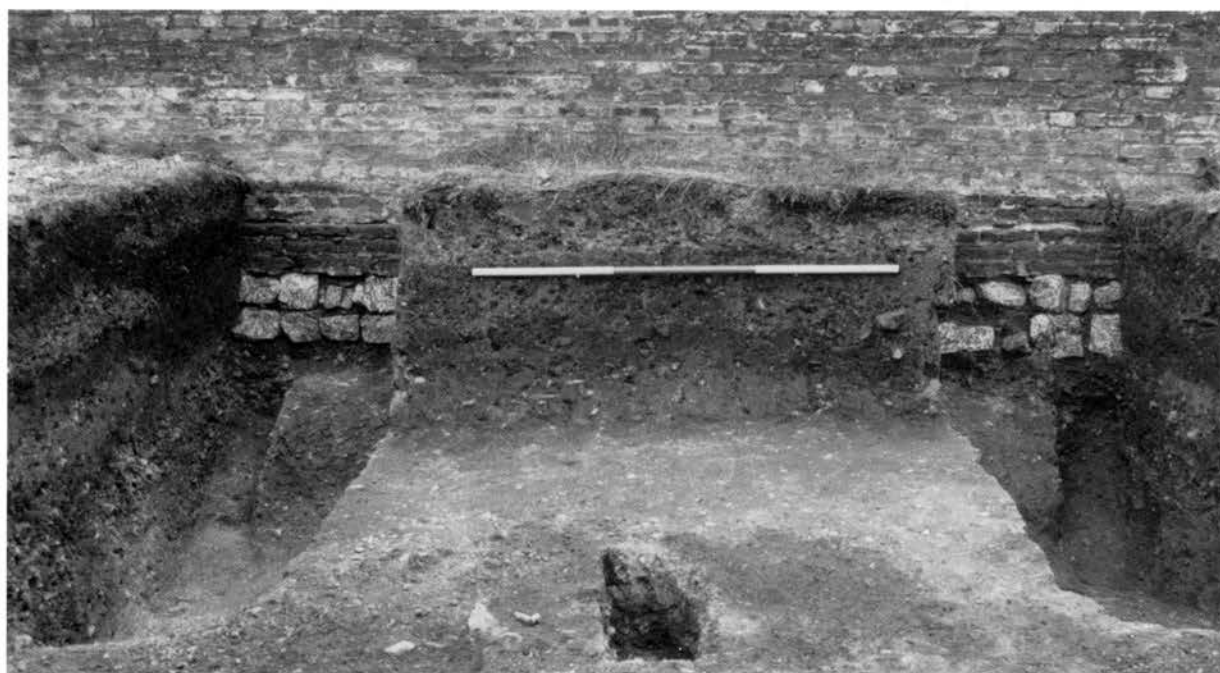


Plate x) The Library Site (Trench IV) – the exposed footings of the southern boundary wall with Lane-side ditches in mid-ground (see fig. 28)

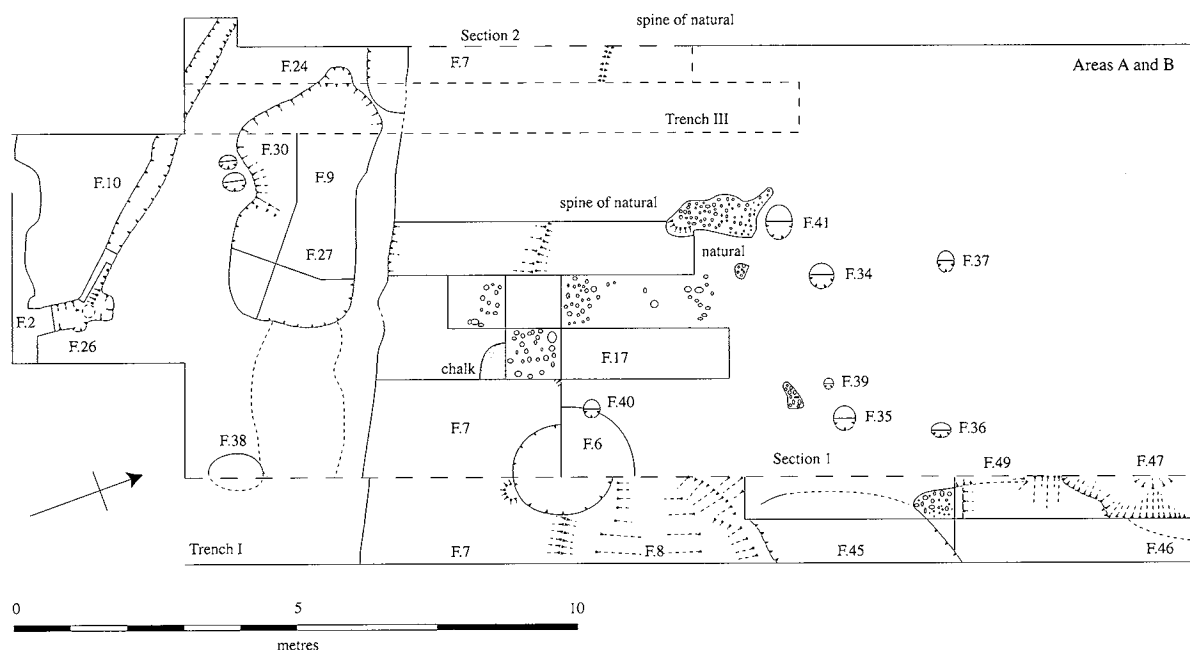


Figure 29. The Library Site – Main area of excavation

was not retrieved, several fragments of daub were present (small pieces of brick/tile and an iron nail were all that was otherwise recovered from it). This appeared to cut a north-south oriented ditch of similar proportions and profile (F. 26); a few small daub fragments were again the only finds.

Two postholes north of F.10 (F. 43 & 44) and another possibly contemporary feature to the northwest were excavated (F. 24). The latter was a near vertically sided sub-square cut, truncated on its eastern side (0.30m+ x .70m). 0.50m deep, it had a flat base 0.30m across and was filled with pale yellowish grey-brown silty gravel with occasional clunch and charcoal flecks. It is difficult to understand its function; if a posthole it would have been very substantial. Yet, by its plan/shape it is unlikely to have been a quarry pit and there seems no basis of later assignation. Similarly, although there is little doubt that F. 43/44 were postholes, they are without obvious structural association. The status of all three features is, therefore, somewhat ambiguous. Although they could somehow have related to subsequent quarry activities (e.g. marking out), given their alignment they are instead tentatively associated with 'primary' activities.

The northern three-quarters of the area had been systematically quarried away for gravels. So much so that, upon machine-stripping to the expected level of the sub-soil, undisturbed natural only survived in a very few spines (fig. 29; pl. xi). The extraction occurred *via* semi-continuous east-west oriented, broad flat-based ditch-like pits. They appeared to have been dug in 'traditional' strip-style – digging along a line and, when progressing to the next, re-depositing the topsoil into those just dug. The results of such gang-digging are not regular continuous cuttings, but interrupted chains of elongated pits. 0.50–80m deep and 2.50–3.00m wide, the intervening ridges probably

denoted the succession of a day's labour. Their basal profiles were largely filled with mid grey-brown sandy loam (re-deposited 'buried' horticultural/arable soil), which interbedded with deposits of pure sands and gravels. Wasteful considering the goal of extraction (sands & gravel), the latter were presumably the result of tidying up or sorting. The infilling of the profile to this depth (one third/half) seems to have been piecemeal, thereafter an upper sandy loam horizon was relatively uniform and suggest *en masse* backfilling upon the cessation of quarrying. These features were only sondage sectioned, not dug-out in their entirety (F. 7, 17, 45, 46, 49 & 50). Running straight across the area of excavation, F. 7 constituted the southern 'edge' of this quarrying zone (pl. xi).

South of this line lay an intercutting cluster of irregular pits (0.85–1.00m deep) that collectively formed an hourglass-like pattern (F. 9, 29, 30 & 33). Filled with banded deposits of sandy gravel and brownish grey sandy silts, given their form (steepness of sides, etc.), there can be little doubt that these must represent quarry pits. It would appear that the easternmost (F. 29) had been successively re-cut by 0.60m deep ovoid pits (F. 27 & 32). These were lined with grey-blue clay, which (not having a known on-site source) implies its 'importation' for a deliberate function, presumably a lining for water retention.

Deposited across the main quarry zone (F. 7 northwards) was a relatively uniform spread of dark brown very sandy silt, 0.20–.30m thick (pl. xi). Whilst not robust, this carried an 'informal' or patchy metallurgy (F. 31). Only intensively excavated where it dipped into the top of the quarry hollows, artefacts were found to bed horizontally on its surface. Associated with this was a large well (F. 6); partially excavated during the evaluation, another quadrant was dug in 0.20m spits (pl. xi). Truncating the quarry backfill, its fill sequence



Plate xi) The Library Site – Looking west with well F. 6 cutting through quarry pit F. 7; note partial excavation of metallised surface atop mid-ground cross-baulks (see fig. 29)

consisted of green-stained mid grey-brown slightly clayish sand with pea grits, grading up into mid greyish brown clayish sand. The base of a later 'middensh' horizon was found to bed down into its upper cone. In total, 19 animal bones and seven pot sherds were recovered from the excavation of this quadrant (plus 12 oyster shells, a brick and two tile fragments). The pottery, regularly distributed by depth, would support the late medieval attribution of this feature. Apart from one piece in the uppermost spit (15–16th century), the remainder were of 14–15th century date (see Hall in Evans 1995b: Appendix 3).

Dispersed postholes cut the top of the gravel surface across the northern middle of the quarry zone (F. 34–7, 39–41). Given that no post-pipes or packing fills were identified within them and their general shallowness (50mm–0.17m deep), the existence of some is clearly dubious (e.g. F. 39). One configuration was, however, apparent – a four-post pattern defined by F. 34–7 that extended over 1.80–2.20 x 2.50–3.00m. Possibly yard-related, the remaining features, at best, must be considered 'incidental' (e.g. drying racks, ?granary).

The Daub Spread

During test pit sampling of the lower soil quantities of building material were recovered over a 2(+) x 4–6m(+) area in the southwestern corner of the main area of excavation. This included fragments of clunch and daub, the latter ranging in density from 1.3–11.6kg in five test squares (4.6kg ave.). Seemingly a discrete deposit of demolition-derived material, these artefact types had negligible representation

within the mid-eastern midden (see below). This area produced the vast bulk of the 533 pieces of daub recovered in total from the excavations (24.4kg); all but twenty-one coming from the [042] soil. Whilst generally caught within the upper profiles of the southern quarry pit cluster (F. 9 *et al.*), the spread also extended laterally over the surface of natural (across the southern 2m of this area the soil was itself 'dirty' with charcoal flecks and bone fragments). Its distinct northern limit corresponds with the edge of the main quarrying zone (F. 7) and, while the ground surface/buried soil was certainly truncated beyond this point in that direction, it may not necessarily have been to the south. The daub could have been deposited prior to the *en masse* quarrying and its northern limits truncated in the course of area de-turfing/stripping. Apart from F. 19 (a lane-side pit), this was also the only point on the site where daub fragments were recovered from features: the F. 10/26 gullies (14 pieces; 206gm) and pit F. 38 (2; 128gm). Matching the composition of the material found within [042], it suggests an immediate on-site source for the spread.

The material generally consists of a relatively soft cream-yellow fabric with frequent organic inclusions (straw and chaff). Cob-like, a high proportion of crushed chalk/clunch was probably used in its preparation. Of the recovered fragments, 155 were found to have structural attributes (e.g. faced and/or with wattle/stud timber impressions; see Evans, Gibson & Miller in Evans 1995b: Appendix 6).¹⁵ The pieces seem to derive from a timber-frame structure – one with doors/gates, diagonal timber braces and possibly windows, with the daub-clad wattles set vertically

between studs.

Discussion

Given the available dating evidence, albeit limited and largely 'negative' (one later 13th century vessel and a paucity of brick/tile inclusions), there is every reason to presume that the lane-side ditches in Trench IV related to the laying out of Jesus Lane and, by extrapolation, the nunnery. Undergoing at least two episodes of re-cutting, their eventual infilling appears unrelated to the establishment of the college itself but rather earlier developments. The greater intensity of cut features found along the southwestern side of the trench may reflect a boundary division, possibly even an entranceway into the yard, and could correspond with the line of the ditch F. 26 in the main area of excavation, which (if projected south) would run just west of, or into, the southern end of trench. Moreover, fragments of the same cob-like daub found in the features were also present within F. 19 – perhaps it held a large post at the end of the F. 26 ditch-line. Certainly, 'something' occurred corresponding with the projected alignment of F. 26 within the southern end of this trench.

Although having different alignments, and one was thought to cut into the other, ditches F. 10 and 26 are considered as being broadly contemporary due to their shared scale, fills and the fact that they terminated at the same point. As will be discussed below, it is suggested that the north-south ditch (F. 26) continued south and related to lane-side features within Trench IV. Whilst F. 10 may represent a blocking or return to that system, no entirely satisfactory solution can be found for the latter's yard-oblique alignment. There is evidence, albeit indirect, to suggest an 'early' structural association inasmuch as fragments of a distinct cob-like daub were recovered from within both it, F. 26 and extended (in the base of the sealing horizon) north from the line of F. 10. Similarly, apart from the fact that their phasing seems 'early' (possibly either relating to the F. 10 structure or the quarry pit cluster), little can be said of the function of the F. 43/44 postholes.

Although roughly respecting the southern edge of the main quarrying zone, the F. 9 (*et al*) quarry pits are phased earlier based on the fact that pit F. 48 was cut by F. 7 of the latter group. This is a broad phasing criteria for what was probably the piecemeal digging of pits. Their extraction could have continued on and been contemporary with the strip quarry. It is this latter term that marks the primary distinction between the two extraction processes. Whilst the southern quarry pit cluster are small-scale 'incidents', probably intended to serve on-site needs on an *ad hoc* basis, the northern 'field' constitutes a quarry. In other words, large-scale workings undertaken in a relatively short time (?six months to ten years duration). This is evidenced by their shared alignments, strict southern boundary, overall density of cuttings and that only few 'spines' of natural survived anywhere across this zone. The entire area had been stripped in the course of these workings and a degree of 'planning' or at

least intention beyond a domestic scale is evident. Given their 13–14th century date, two interpretations suggest themselves. Either the quarrying had to do with the construction of the nunnery buildings (e.g. the extraction of sand for mortar) or the nunnery was selling the sands and gravels for off-site purposes.

The scale of the truncation suggests that the quarrying (and its backfilling) and the subsequent laying of the metalled surface were interrelated and broadly contemporary acts. It is unlikely that a plot would be so decimated without planning for its re-instatement. Moreover, if this was not the case (i.e. the metalling laid long afterward), then it could be expected that the quarry hollows would have been used for the dumping of refuse. Therefore, their interrelationship must be inferred – the decision to quarry and the establishment of an 'open' metalled yard went hand-in-hand. The few substantial features associated with the latter suggest open-air processing activities (washing and/or rendering): one, a well relating to the provision of water (F. 6); the others, clay-lined pits (F. 27/32), its retention.

It is difficult to convincingly ascribe the four-post pattern to any definite structure. Whilst a gateway configuration could, for example, be postulated, there would be nothing to relate this to (e.g. fence-/wall-lines). The phasing status of these features is also somewhat ambiguous and, not surprisingly, little material was recovered from them. Apart from a small piece of 14th century pottery from F. 41, the only feature that produced any finds was F. 34 which included a sherd of 17th century date. Although this may have been 'introduced', it could suggest that some (if not all) of these postholes should be assigned to Phase 2 'early garden' activities.

Early College (Phase 2) – The Garden Midden

The lower 'buried' soil, a light-mid grey sandy silt loam ([042]), lay 0.20–30m deep over the top of the metalling and, across the southern quarter of this area, the surface of natural. It had obviously been truncated over the area of the strip quarries. However, no boundary was distinguished between it as an *in situ* layer and as re-deposited. Whilst not inconceivable, it is unlikely that this horizon had been uniformly stripped right the way across the plot (e.g. down to the lane-side).

Previous to machine-stripping this horizon was sample excavated. Twenty-five 1m squares were hand-dug with ten laid-out on a 2.00m grid to provide basic sample cover ('A'–'J'); the remainder judgmentally sited on axes bisecting two areas of high artefact density ('K'–'Y'; fig. 30). Three of these were 100% sieved (5mm mesh; 'C', 'F' & 'G') and six bulk sampled for environmental and small finds data ('D', 'E', 'F', 'N', 'H' & 'X'). Quantities of diverse materials were recovered ranging from worked flint to Roman, medieval and later pottery, glass, metal and clay pipes, and also a broad spectrum of building materials (5142 artefacts in total). A methodology more commonly used on prehistoric scatter sites, this sampling was undertaken to investigate the character of the

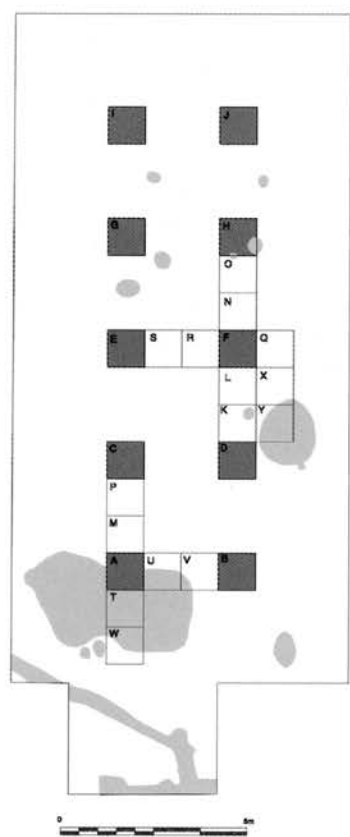


Figure 30. The Library Site – Sample square location

midden first recognised during the evaluation. This feature was clearly apparent in the distribution of bone, pottery and brick/tile (fig. 31; Table 1).

Due to recovery bias (i.e. small fragmentation), the distribution of shell – predominantly oyster, but also mussel and scallop – is less ‘measurable’. Nevertheless, varying in density from 0–75 pieces within the grid-sample squares (8.6 ave.), higher-than-average densities also occurred in the same mid-east zone. (Not including a spurious nil value for Sq ‘Q’, the average density across a 6 x 4m area was 82.7 per m².) Similarly, the low recovery of glass and clay pipe fragments does not lend itself to valid statistical analysis. Occurring in only three of the ten grid-sample squares and 11 of 25 units in total, the latter only ranged from 0–6. The distribution of glass was similarly uneven. Occurring within 12 squares in total,

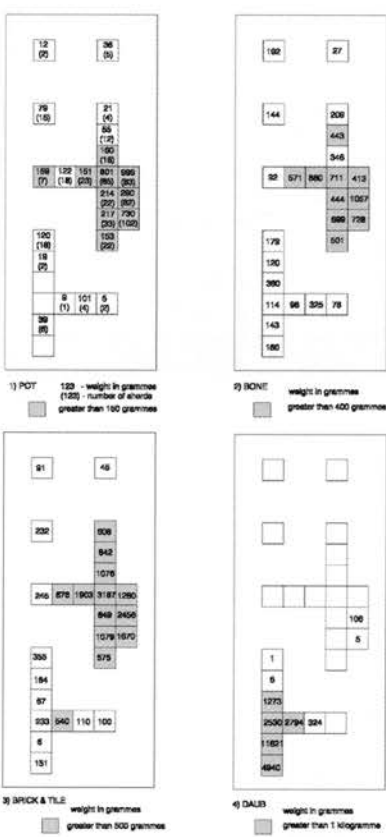


Figure 31. The Library Site – Sample square plots (see fig. 30)

values greater than three were only present within the mid-east (25 & 19 pieces in squares ‘N’ & ‘O’ respectively). Averaging three pieces per m² within the ten grid-sample squares, the density of iron nails and fittings was also low with above-average densities only occurring in squares ‘C’ and ‘F’ (16 & 7 pieces respectively). However, upon intensifying the sample grid higher-than-average densities occurred throughout the middle of the area with a range of 6–28, averaging 12.3 pieces per m².¹⁶

The repeated occurrence of a marked mid-eastern ‘high’ in most artefact categories suggests a specific act of deposition – middening. Whilst no doubt distorted and progressively enlarged by horticultural turning, the density and the concurrence of artefact categories indicates that it could not just be a product of manuring. Roughly centred upon F. 6 and extend-

Table 1. Comparative lower soil sample square densities (per 1m²)

| Type: | Sample Sqs | | Midden | |
|-------------|---------------------|--------------------------|------------------------|---------------|
| | Range | Ave. | Range | Ave. |
| Animal Bone | 6–116 (27–711gm) | 36 (225gm) | 37–167 (346–1057gm) | 91 (617gm) |
| Pottery | 0–85 (0–801gm) | 16 (139gm) | 18–102 (122–999gm) | 49 (434gm) |
| Brick/tile | 45–3187gm | 276gm (excluding ‘F’) | 575–3187gm | 1333gm |

ing into its uppermost cone, this spread did not go deeply into the well. Essentially the midden resided in the lower profile of the [042] soil and was not visible within its surface.

The density of pottery and bone within the midden zone was approximately three times greater than that of the area-background; the occurrence of shell almost ten times. Although somewhat less clearly and consistently due to overall low numbers, the midden is also recognisable in the distribution of nails/fittings, fragments of glass and clay tobacco pipe. Brick and tile were also major components, with 19–40 and 20–80 pieces per m² respectively found within its core. Despite the fact that building stone was little represented, there were great quantities of burnt slate (and also cinder/coal).

Within its matrix the midden appears to include both material from a 'domestic' source and demolition debris, whose deposition was not necessarily contemporaneous (i.e. there is a relative uniformity of building materials which is not, for example, found in the pottery). The scale of the spread should not be underestimated. Depending upon what finds category is employed for determination, it must have extended over 14–20sqm within the site. Densities were greatest along its eastern margin and there is every reason to think that only half or less of it was investigated. Therefore, presuming that in total it extended over between approximately 30 and 40sqm, from the established average densities it is estimated to have contained between 1500–2000 pot sherds, 2700–3600 pieces of bone (18.5–24kg), 40–53kg of brick/tile and 370–500 nails.

In terms of its 'domestic' attributes the midden reflects a diverse table. Much shellfish was consumed and a wide range of foodstuffs, beyond the usual domesticates, are represented: red deer, rabbit, chicken, goose, duck, pigeon and fish (see below). Similarly, the pottery attests to a degree of affluence and includes imported French and German stonewares (see Hall in Evans 1995b: Appendix 3). Spanning the 14–19th centuries, it is mainly of 16–17th century attribution. Beyond this, other dating factors must be taken into account. Whilst an Edward IV silver penny of later 15th century date, a 13–14th century continental silver coin (Venetian?) and a Nuremberg Jetton of the 16th century were all recovered, the brick would seem to be of 17–18th century date, as are also the clay pipes and glass.¹⁷ The latter definitely cluster within the midden zone and suggest that it was active until a late date. Given this wide dating spectrum, there are several ways of modelling the midden's formation – including its *en masse* re-deposition from an off-site source during the 18th century (unlikely given its situation *within* the lower soil; see VII below). Taking the artefactual and stratigraphic evidence as a whole, the most plausible interpretation is that the midden accumulated *in situ* during the 16–17th centuries and was partially raked-out during the raising of gardens in the later 18th.

Boundary Walls

The footing of the red brick wall bordering the southern side of the plot was exposed within Trench IV (pl. x). Carried upon two courses of large roughly dressed clunch blocks, no mortar was used within the footing and, instead, it was packed with clayish sandy silt with gravel. Upon this was a brick footing, three courses high, that was off-set from the face of the upper wall by 50mm. 0.20m high, the handmade buff red bricks (50 x 100 x 220mm) used in its construction were bonded in pale sandy cream mortar. Above ground level the wall is laid in an English bond, consisting of both red and yellow hard handmade bricks (60 x 110 x 220mm) set in sandy yellow mortar. Whilst clearly not the same build as the brick footing, it was difficult to establish the exact line of their division. Whilst the date of this rebuilding is unknown, the lower fabric appears attributable to the 16–17th century.

The yellow/brown brick wall which bordered the eastern side of the yard (eventually demolished during the library's construction), investigated during the 1992 evaluation, was found to have a similar fabric and sequence. A red brick and dressed Barnack stone wall stood for 0.75m above a clunch block footing. On top of this, at the height of present ground level, lay the yellow brick wall. This upper (re-) build post-dated the laying of a service pipe indicating that its construction cannot be earlier than the later 19th–early 20th century. Upon the wall's reduction, much moulded clunch building stone was found to have been incorporated within the foundation. A trench cut by contractors across the line of the footing demonstrated that it lay above a major north-south oriented ditch (F. 60). With an angular 'V'-shaped profile (1.70m wide; base 0.50m below the bottom of the foundation), this was filled with quite homogeneous mid greyish brown sandy silt from which a medieval sherd was recovered. North-south oriented, it must mark the same plot boundary as the wall and may have continued south to conjoin the lane-side ditches (F. 18, *et al.*), possibly parallel with ditch F. 26.

The Upper Garden Soil (Phase 3)

The composition of this horizon and its artefact inclusions will be discussed in the section which follows (VII). Features attributed to this phase are distinguished by their near-black garden loam fills, 'late' inclusions and that most truncated the lower soil. They include quarry and planting pits (F.1–3, 15, 25, 27 & 28), postholes (F. 4, 5, 20 & 59), gravel paths (F. 11 & 12) and a series of re-cut gullies/troughs bordering the foot of the lane-side wall (F. 56–8). Little need be said concerning these apart from that the occurrence of gravel paths within its lower profile suggests that this upper horizon may not have been deposited *en masse*, but that successive turning/working has eradicated earlier levels within it.

Summary and Discussion

Pre-medieval Activity

A remarkable range of material was recovered, with

all periods represented apart from Saxon (pieces of Saxo-Norman St Neot's ware were found). The recovery of twelve sherds of Roman pottery and a handful of prehistoric worked flints (see Pollard in Evans 1995b: Appendix 1) is incidental inasmuch as no features can be attributed previous to the nunnery. Worked flint has been found on a variety of recent Cambridge-town sites and, within the immediate context, reflects no more than 'usage' of the Cam gravel terraces. Equally, there is no reason to link the Roman material with the kiln known within the vicinity (see Going in Evans 1995b: Appendix 2). All very abraded, these probably reflect arable practice (manuring) within the hinterland of the hill-top Roman town.

Nunnery Usage (Phase 1)

There are sufficient indications, all be them somewhat elusive, that the nunnery grounds were divided into ditched plots: the lane-side (F. 18, *et al*) and north-south ditches (F. 26 & 60). The more minor northwest-southeast oriented ditch, F. 10, would also appear related and possibly associated with the daub spread; the demolition of the attested structure post-dates the backfilling of the adjacent pit quarries (F. 9, 29, 33 & 33). The orientation of ditch F. 26 warrants comment inasmuch as it diverges from that of Jesus Lane and its flanking ditches. It is actually aligned with the chapel and, thereby, an institutional (nunnery) association could be inferred (if of private/domestic or civil origin it could be expected to have been laid-out at right-angles to the lane). However tentative its assignation, this is the only *archaeological* evidence which would associate the site/plot with the nunnery.

Taken alone, the nunnery-attribution of the strip quarrying might be contentious inasmuch as they could also relate to the (primary) college construction. The 13-14th century material recovered from their fills might all have been residual, deriving from earlier plot usage, and their digging actually date to *c.* 1500. Yet the consistent dates of the material from the well cutting their backfill (F. 6) is contemporary with the use of the post-quarry surface and indicates that the quarries pre-dated the establishment of the college.

It is impossible to be absolutely certain of the character of the daub-attested structure – whether F. 10 was a sill-bedding trench or a gully that lay adjacent to a timber-frame building. Given its distinct cob-like character, certainly it is tempting to associate the daub with the 'mud wall' described as enclosing the fair-ground and the four-square postholes as some manner of associated gate. However this material was probably building-derived, and there is no definite evidence to support any interpretation of the site as the fairground. If nothing else, such intense, if only annual, usage should have generated a greater finds densities than were recovered.

Early College (Phase 2)

This has an *interregnum* status and is largely based

upon artefact dating (16-17th century), rather than any major change in land-use. Otherwise, based on stratigraphic evidence alone, it would be indistinguishable from late Phase 1 usage. Whilst anticipating subsequent gardening activities, this phase basically accommodates the 'buried' soil midden within Area A and encompasses the construction of the yard-enclosing brick walls.

Later College (Phase 3)

These developments essentially reflect later post-medieval garden activity (18-20th century). Its onset is marked by the deposition of the dark horticultural soils and includes 'late' quarries and garden features (e.g. the paths). The extent to which the grounds were made-up at this time represents dumping of soil and refuse on an extraordinary scale.

Cloistered Economies

The recovered assemblages were generally too small, particularly those from nunnery contexts, to be 'meaningful'. Such caveats aside, what do the excavation results inform us of concerning life in the site's respective institutions? A wide draw of crops was reflected within the charred plant remains (thirty one samples analysed; see Stevens in Evans 1995b: Appendix 5 and Hosoya 1993). The nunnery phase produced ample evidence for the cultivation of six-row hulled barley, along with rye, free-threshing wheat and garden pea. The early college samples show similar diversity, although free-threshing wheat (commonly associated with intensive farming upon improved soils), was much more frequent. In addition, the latter also contained seeds of lentil and grape, which may have grown locally, although the latter may also have been imported. The associated weeds, seeds of field gromwell, clover, oats and grasses, as well as spikerush (a species which is associated mainly with wetland soils) would seem to indicate the cultivation of lowlying calcareous river soils. In addition, the nunnery samples also include seeds of goosefoot/fat hen, small nettle, woundwort, dock, perennial rye-grass, self heal, campion and stinking mayweed. The latter is usually taken as an indicator of farming on heavier clay soils, whilst campion is associated with drier calcareous soils.

Plants not directly associated with crops were also present within the nunnery deposits. A single seed, possibly of Hyssop, may attest to herbs used for medicinal purposes or cooking, and is quite commonly associated with abbey herb gardens. Two seeds of madder were also found, though it was impossible to distinguish whether they represent the wild or cultivated variety; this was often grown for a red-purple dye which could be extracted from its roots. In addition, seeds of great fen-sedge, commonly employed for thatching and utilised for wattle and as fire lighters, were also recovered.

As far as can be ascertained the organisation of the nunnery lands differed from the college inasmuch as the former was run as a home farm with employed labour, whereas the latter let their fields (E.F. Mills,

pers. comm.). Given this, it could be expected that more 'stuffs' would have been brought into the nunnery for in-house processing than the college. In both college and nunnery phases there is evidence of on-site butchery and possibly that the college bought, or at least brought in, 'on-hoof' (see Luff in Evans 1995b: Appendix 4):

evidently saw a great change in dietary patterns and diverse animal usage. Whilst greatly influenced by recovery technique, faunal assemblages from the town show great variability, as shown in Table 3.

Most telling in this comparison is the very high representation of 'others' from the Bene't Court/Eagle Yard excavations (see Luff in Edwards

| TAXA | NUNNERY | | COLLEGE (Early) | |
|----------------|---------|------|--------------------|------|
| | NISP | % | NISP | % |
| HORSE | 4 | | 1 | |
| COW | 6 | | 63 | |
| OXO | 19 | | 153 | |
| | | 41.4 | | 31.8 |
| SHEEP/GOAT | 6 | | 124 | |
| PIG | 6 | | 33 | |
| SMA | 27 | | 268 | |
| | | 55.7 | | 62.2 |
| CAT | - | | 1 | |
| DOG | - | | 2 | |
| RED DEER | - | | 2 | |
| HARE | - | | 4 | |
| RABBIT | - | | 6 | |
| RAT | - | | 1 | |
| CHICKEN | 1 | | 9 | |
| GOOSE | 1 | | 3 | |
| MALLARD | - | | 1 | |
| WOOD PIGEON | - | | 1 | |
| FISH | - | | 11 | |
| | | 2.9 | | 6.0 |
| SUB-TOTAL | 70 | 100 | 683 | 100 |
| UNIDENTIFIABLE | 13 | | 427 | |

Table 2: Number of Identifiable bone Fragments (NISP): oxo — large mammal (horse/cow/red deer size); sma — medium-sized mammal (sheep/goat/roe deer/pig size); not included are the partial skeletons of a pig and three foetal piglets from the nunnery assemblage.

As represented by the midden, the inhabitants of the college (and guests) partook of a much greater range of animals, including game and fish, with mutton and beef as the basic meat staples. However, there is no evidence to directly link this development with institutional change. This broadening of the range of consumption is found on a number of sites within the town spanning the same period, including those of strictly domestic attribution. The 15/16th centuries

1996: Appendix 4) and, equally, the high percentage in this category associated with the Dominican Priory at Emmanuel College (see Luff in Dickens 1994: Appendix V). On the one hand, this must be read against the generally low recovery (by artefact number) of earlier medieval assemblages in contrast to late medieval/early post-medieval deposits. Yet, on the other hand, it presumably also reflects from where within these respective institutions the samples

| | Large Domesticates | Small Domesticates | Others | (NISP) |
|-------------------------|--------------------|--------------------|--------|--------|
| Jesus College | | | | |
| Nunnery (I) | 41.4% | 55.7% | 2.9% | (70) |
| Early College (II) | 31.8% | 62.2% | 6% | (683) |
| Emmanuel College | | | | |
| Monastery | 26.5% | 44.1% | 29.4% | (34) |
| Early College | 77.1% | 19.8% | 3.1% | (825) |
| Bene't Court | | | | |
| 13–14th century | 49% | 36.3% | 14.7% | (408) |
| 15–17th century | 23.3% | 41.2% | 35.5% | (1401) |

Table 3. Faunal assemblage variability (percentage by NISP)

derive, and attests to specialised function and complex depositional processes. Whether kitchens, middens or make-ups – many factors stand between us and these institutional bodies.

VII) Test Pitting – The First Court Sondage

The topsoil ground surface across the college is remarkably level. Accordingly, the issue of when the grounds were so made-up has commanded considerable attention. During the course of the Library Site excavations seven 1m² test pits were hand dug through the top-/buried soil horizons with all artefacts collected to evaluate artefact densities and date the make-up (TP 1–7; fig. 27; Evans 1992: 8). The vast majority of the finds derived from the 0.50–.85m thick upper soil and are of 18th century attribution. Confirmation of this dating would come from the fact that in the Loggan view (1688) the foundation plinth of the chapel, which today is ‘welled’ and lies approximately a 0.50m below the lawn, is shown at ground level. This implies that most of the making-up of the ground level must post-date the later 17th century.

It is unlikely that this horizon was all college-derived and it must include an element of site importation. Nor, moreover, can there be certainty that it was all dumped at the same time. Whilst the scale of deposition is extraordinary, it is not dissimilar to evidence of widespread post-medieval make-up in other towns (e.g. Ely or Leicester) – essentially the incorporation and spread of ‘night-soil’ and refuse for agricultural/horticultural activity on town fringes. What is surprising is that a college would open its doors to such deposits. However, its deposition could pertain to specific college circumstances, particularly the proximity of the Cam and the need for flood protection (i.e. the creation of an artificial terrace scarp). Recent fieldwork in Midsummer Common revealed evidence of extensive 17–18th century alluviation, which may well account for this massive raising of college ground level and the drain-side embankment around the northern perimeter of its close (Pollard 1995; see Gray & Brittain 1960: 215 concerning flood levels).

During the 1995 renovation programme great quantities of finds were noticed within the spoil from service trenches cut across the eastern side of First Court (Dickens & Evans 1995). In the light of their situation beside the kitchens, it was thought that this material could mark the location of the college middens. An exploratory 0.50 x .50m sondage was excavated (fig. 3); unfortunately a pipe trench reduced the area of the archaeological survival by approximately half. The sequence proved to be c. 1.00m deep above the sub-soil, a mid brown sandy gravel. Beneath the present cobbled surface (‘A’, 50–70mm thick), twelve horizons were identified (in reverse order of deposition):

- B Light brown ‘gritty’ sands with brick fragments (make-up for ‘A’).
- C c. 0.30m depth of dark brownish grey/black sandy loam

with oyster shell and charcoal fragments. Basically topsoil dumps, it is from this horizon that the vast majority of the recovered artefacts derived.

- D Crushed clunch and small fragments (c. 50mm thick) – probably an earlier courtyard surface.
- E Light brown sands (0.10–.12m thick) – probably make-up for ‘D’.
- F Off-white sandy mortar with a smooth even surface (50mm thick; 0.51m deep).
- G Light yellow-brown ‘gritty’ sand (0.16m thick) – make-up for ‘F’.
- H Sandy off-white mortar (50mm thick). Although its top was uneven, this was probably also a surface (total depth 0.70m).
- I Yellow-brown gritty sand (40mm thick) – make-up for ‘H’.
- J Mid brownish yellow sand (50–60mm thick) – make-up?
- K Grey sandy silt (40–50mm thick) – weathering?
- L A burnt surface of orange-brown sandy silt with extensive charcoal inclusions (20–30mm thick; total depth 0.85–.88m).
- M Greyish brown sandy loam (70–90mm thick) – the buried soil.

In evaluation of whether the sondage fell within an area of college-derived middening, its densities can be compared against those of the Library Site test pits (TP 3 is not included). Only the material recovered from the topsoil dump within the First Court sondage is included (‘C’). For the purposes of comparison these figures must be adjusted by a factor of 4–16 to account for differences in sample size (8 is employed):

| | Library Site TP | | First Court Sondage | |
|-----------|-----------------|-------------|---------------------|--------------|
| | Range (#) | Average (#) | Number | Adjusted (#) |
| Pottery | 10–35 | 21.3 | 47 | 376 |
| Bone | 1–25 | 8.8 | 46 | 368 |
| Glass | 0–13 | 5.3 | 5 | 40 |
| Clay pipe | 4–9 | 5 | 17 | 136 |

The sondage densities are far higher and, whilst more comparable, they are still approximately five times greater than those of the 1992 test pit within the Library Site college-phase midden (TP 3): 73 sherds of pottery, 77 bones, 11 and 3 pieces of glass and tobacco pipe respectively. Also recovered from the First Court sondage were 18 pieces of oyster shell. Given this, the fact that the pottery largely consists of 17–18th century tablewares and the extraordinary density of artefacts overall, in all likelihood this material derives from college middens.

This evidently was not the site of the nunnery middens. The sequence would seem to divide at ‘F’, the upper mortar surface; above which would seem to be college-related deposits (two pieces of bone and a 17–18th century orange-brown glazed ware sherd were recovered from ‘E’). Remarkably enough, only one find was made from the lower sequence, a plain body sherd of probable 13–14th century date (from ‘L’). While that horizon probably represents exterior trample upon the buried soil, the other two mortar horizons may well have been interior surfaces. Not only is this attribution based upon the character of

their matrix, but the cleanliness of the deposits could reflect regular sweeping/room maintenance. This interpretation would radically vary with the established histories of the site inasmuch as no buildings have been postulated within this area of the nunnery. Yet, arguing against this would be the fact that no demolition rubble sealed the upper mortar surface 'F'. The only other plausible explanation for the sequence is that the division between the college and nunnery falls lower (between 'H' and 'I'/'J' or 'J' and 'K'), which could be supported by the late date of the pottery in Layer 'E'. If so, the mortar spreads ('F' & 'H') could have been laid in association with primary college construction.

VIII) The Master's Garden Burials

(with K. Gdaniec and J. Miller)

In August 1993, service trenches were dug across the Fellow's Garden and east into the Master's Garden. Upon the discovery of human remains within a junction pit excavated in the path immediately south of the Master's Lodge, a watching brief was maintained on the works with the remainder of the pit formally excavated (fig. 27; Gdaniec & Miller 1993). The contractor's hand-dug trenches were approximately 0.40–0.50m wide and 0.45–0.75m deep. No archaeological remains were present within that north of the junction pit, although human bone fragments were found dispersed in rubble deposits at the base of the 30m long trench running eastwards to the chapel. The scattered nature of the finds suggest derivation from nearby graves, perhaps disturbed through gardening or earlier service groundworks. Nine disturbed clusters of human bones occurred in the base of the 20m long trench west of the pit. While no grave cuts were identified, these more substantive remains pointed to truncated *in situ* interments.

The 1.50m square pit was hand-excavated to the top of the sandy gravel subsoil (1.15m deep; 6.62m OD); the buried soil being truncated by the bases of some of the graves to a maximum depth of 50mm. The soil matrix of the cemetery sequence, generally a mid yellowish brown fine friable silty sand, was excavated in 0.10m spits to abet the distinction of graves. The articulated remains of whole skeletons, or groups of apparently associated bones, were collected together and assigned individual numbers. Apart from one small Roman sherd and seven pieces of medieval pottery (13–15th centuries), the attributable finds are of post-medieval date and include a fine double-sided single-piece bone comb (15–17th century).

The earliest burials appeared to be either lying on, or were slightly cut into the buried soil against the north section. The greatest density of interments occurred in the southern half, where a 'compressed' horizon of at least three levels of human skeletons (0.30m deep) comprised variously articulated, truncated and displaced remains attested to an intense sequence of interment. At the lowest level, at least five individuals were represented. Grave cuts were sought to little avail, the truncation sequence of intercutting

burials evidently affected all of the inhumations. Distinction was not assisted by the lack of coffin stains and fittings, which may reflect shroud burial. This could explain the compressed nature of the burial layer and the lack of discernible grave cuts, since the rapid backfilling of the grave would follow the contours of the body rather than fall flat upon a coffin. Concentrated at the south end of the pit, above these was a layer dominated by long bones (generally aligned east-west). Two groups of paired skulls and fragments of others were also recovered from this level. It was apparent that the formal arrangements of the bones suggested that care had gone into their interment.

Examined by Prof. Gresham, initially the two skeletal groups – the co-mingled remains and parts of at least nine partially articulated burials – were analysed separately. This however revealed no clear differences with respect to sex, age, health status or stature. Amongst the minimum of 21 burials identified, were six males and five females. Reliable age determinations could only be suggested on the basis of stages of tooth eruption and epiphyseal union, together with examination of the few pubic symphyses that survived. These gave ages of individuals from 7, 9, 13, 21, 30–40 and 45+ years; one fragment of a mandible, less than six months age, may well have been a birth casualty. There were very few cases of debilitating disease. Of these potentially the most painful were one individual suffering from an advanced degenerative process affecting at least four cervical vertebrae, and another with an infection in the tibia. Apart from these, the only serious disease was present in the oral cavity. Evidence of trauma within the population is limited to a broken thumb and clavicle, neither having any long term consequences for the individuals concerned.

Nineteenth century investigations within the vicinity of the chapel concentrated upon recovering the plan of the nunnery buildings; chance findings of human bone led to the suggestion that the burial ground of the nuns lay at the northeast end of the church and that of the parishioners to the southwest (Gray 1898: 64). Undifferentiated by age or sex, the mixed population recovered from the Master's Garden excavations confirms the attribution of the latter. As little dating evidence accompanied the burials, it is not clear how early they occur in the history of the nunnery. While it is known that the nave of the nuns' chapel was used as a parish church until the mid-16th century, no documents record the consecration of the cemetery. Since the parishioners comprised, almost exclusively, the servants and farmers of the nuns (Morgan & Morgan 1914: 48), it must be assumed that they would have been buried in the church grounds from an early date.

Concluding Observations

Of the work to date, generally it would have to be said that the architectural investigations have proven more informative and 'speak' more directly of the

site's successive institutions than the excavations. Opposing views exist as to the origins of the college buildings. One is of near contemporary chroniclers such as Bishop West, and later Sherman and Willis and Clark, that early college records indicate (and confirmed to the latter by the ground plan) that Alcock constructed his new foundation on the 'skeleton' of the nunnery following its substantial demolition. The hall, Willis and Clark suggest, was built *upon* the Nun's refectory to form the north side of Cloister Court (1886 II: 119–22); West, Bishop of Ely 1515–33, wrote in the preamble of statutes drawn up some twenty years after Alcock's death in 1500:

We find the College established and founded for one Master, 11 fellows and 6 boys, or, to speak more correctly, begun to be founded, and *built and constructed afresh almost from the foundations upwards* by the same Reverend Father.

(*ibid.*: 117; emphasis added).

The RCHM, however, stated that earlier commentators were incorrect in this matter and that most of the early college buildings were essentially adaptations with only limited demolition of nunnery fabric (1959: 82).

The investigations within the Halls, Kitchen and Gatehouse/School ranges would seem to confirm earlier opinion. Little of the nunnery buildings appear to have been reused and Alcock's conversion was far more extensive than a mere cladding of the nunnery fabric. Given the sensible incorporation of the chapter house masonry within the east range of Cloister Court, this could suggest that elsewhere the nunnery fabric was much less substantial (e.g. timber and daub) and was therefore reduced to ground level. This would correlate with the lack of re-used nunnery-derived stone in the hall, kitchen, gatehouse, and Grammar School ranges. The mass-building or 'shell' technique of early college construction also suggests a 'sweeping' approach. Effectively, it was built throughout as if a hall inasmuch as, corresponding to the layout of the Grammar School, in the post-chapter house rooms the position of internal stud walls was not determined from the outset. Equally, the sequence of the college's construction suggests a facade-like organisation. That, having established the Cloister Court 'core', the first construction beyond it was the western School/Gatehouse and Master's Lodge Range (with the north range of First Court only built one hundred and thirty years later in 1638–43) attests to the presentation of a unified and imposing architectural 'front' – a public face.

Some degree of status is attested to in the provision of wardrobes for both of the rooms in the gatehouse and in the painted schema of the lower.¹⁸ Its lavish decoration would not accord with any sense of monastic austerity and indirectly supports Willis and Clark's assertion that the design of early colleges derived from manor houses/palaces and not monasteries. Relevant, of course, is that, at least as reflected in the painted design of that room, these were indeed *as-*

pirations – the *faked* marbling of the fireplace and *pretend* panelling. Like the painted extension of the timber wall onto the masonry in the east range (see Richmond above), 'truth to materials' seems unimportant and the college aspired beyond its material means.¹⁹ In this regard these investigations, particularly the chapter house and first storey gatehouse room, contribute to the history of interior design – 'real' and fabricated materials, and what through time was visible or hidden (timber *vs.* masonry *vs.* wallpapering) – variously the monumental display and 'domestication' of institutional spaces (see Evans 1995a & c, 'The Archaeology of Rooms').

With the effective loss of the Gatehouse as a nunnery construction (or at least its standing fabric) knowledge of the nunnery has contracted to the area of the Cloister Court alone. Given the extent of the college's 'fresh' building, the plan of the preceding nunnery now becomes more open in terms of where it may lie. Cloister Court aside, that the college largely adopted or fossilised its layout can no longer be presumed. Accordingly, the recovery of mortar surfaces 'low' in the First Court sondage takes on greater significance. It is now conceivable that they may attest to an otherwise unaccounted nunnery building.

In relationship to the nunnery, these investigations largely provide negative evidence. Nevertheless while not offering a new 'story', general points arise. Previous studies may have placed too much emphasis upon the Jesus Lane frontage largely due to the supposition that the college's gatehouse lies so far back off the street because of its nunnery foundation (as opposed to ready 'facading' along the line of the chapel). Given the nunnery's suburban situation immediately northeast of the lower town defences, riverside access may have been as, if not more, important *vis-a-vis* its plan determination. In this context, Richmond's observation that the normal southern arrangement of the cloister to chapel was reversed probably due to a northern water source is particularly relevant. Extending over 11.6ha, the grounds of St Radegund's were more than 3–5 times the size of the largest inner-town monastic holdings and are comparable to rural monasteries.²⁰ Less 'packed' within its site, there would not have been the same restriction upon its plan as those within the town's core. Nor would there need to have been the same emphasis upon the street – its design and setting are, in effect, rural.

Another way in which the site's situation may have been influenced its layout is the provision of a parish church (Gray 1898: 21). Whilst chapels within monasteries located in the core of the town were public, reflecting their relatively late establishment during the 12–13th centuries, they did not serve as parish churches (these having already been established therein). Because St Radegund's effectively first colonised this extra-mural quarter, its interaction with the subsequent 'town' may have been greater. It has been argued that in the town-core chapels were situated within monastic grounds so as to act as a 'buffer' with the town (Dickens 1994). This may well have

been occurring at Jesus/St Radegund's, with the stand-off from the street being all the greater because of the need to provide a parish churchyard. That the Grammar School was open to non-residential pupils also attests to greater college/town interaction. Its suppression in 1570 and the loss of the parish churchyard in the mid 16th century tells of greater separation between 'town and gown'.

Therefore, in conclusion, the notion that much of the early college plan directly reflects that of the nunnery is in need of address. In the light of Alcock's religious affiliations, it would not have been surprising had he drawn upon monastic models when laying out his college. However, generic inspiration should not be confused with 'plan-fossilisation'.

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readers (particularly G. Lucas and L. White); and this paper's contributing authors and specialists, is great.

Endnotes

- 1 Approximately 12% of the area of the lower town within the King's Ditch was given to monastic holdings. Monastic excavations within Cambridge to date include the site of the Carmelite Friary at Queen's College (Addyman & Biddle 1965: 88–9), the Augustinian Friary (Cranage & Stokes 1921; Hunter 1991), the Black Friars at Emmanuel College (Dickens 1992 & 1994), the Grey Friars at Sidney Sussex (Dark 1984; Hind, Marsden & Evans 1994) and the Hospital of St John's (Miller 1991).
- 2 Only secondary sources have been used during the preparation of this study; no systematic search of the college archives has been carried out.
- 3 The combination room or parlour may not be in its original position. The arrangement of the block after its conversion to college buildings suggest that the rooms east of the hall now occupied by the combination room and cellar were lodgings off G Staircase. It is possible that the larger room on the first floor in the northern third of the range was the original site. There is just enough room to allow access from the hall, indeed the plan drawn by Willis and Clark shows a recess, of door width, in the appropriate position (1886 IV: fig. 17). Whilst there is no conclusive evidence for this theory, the form of both the plan and the elevation of the range support the idea.
- 4 A letter in the College Archives of 20/5/1893 from J. Micklethwaite, the College's architect, includes his plans to display the arcade, a description of its architecture and outlines ensuing alterations to the rooms behind. The archives also include 'A Reminiscence of Osmond Fisher' and Gray's transcription of St John Hope's remarks on the cloister arches.
- 5 The 1958 manuscript of the Royal Commission's report on the college notes that their own plan was drawn up following Gray's 'pamphlet'. This presumably refers to Gray's 1898 account of the nunnery and not an otherwise missing site report.
- 6 During the excavation of the sealing 'college' dump layer scorched fragments of a column shaft were recovered. Probably derived from the central column and clearly fractured through burning, this is indicative of the intensity of the blaze.
- 7 If just compact trample, this horizon may correspond with the 'tread' observed upon the burnt deposits and the division noted within the [150] dumps. Where in the make-up the fractured column pieces were recovered was unfortunately not detailed.
- 8 A rebuilding line is visible in the plaster of the upper wall on the southern side of the hall, approximately 1.00m below the roof. Whilst this could be (mis-)identified as the level of Alcock's building upon earlier fabric, that this division is also visible in the exterior brickwork shows this to be a post-conversion alteration.
- 9 The pattern of alternating rubble and soil/tread layers within these foundations is reminiscent of 13th–14th century footings of a Dominican Priory building recently uncovered in excavations at Emmanuel College (Dickens 1994).
- 10 The RCHM seems to have transposed details between the two tower rooms. It is a similarly positioned doorway in the first floor room which would have led onto the stairway. At the time of the tower's earliest use, the Master's Lodge was a storey lower than it is now; a doorway at this

- point could only have led out onto the roof.
- ¹¹ See Evans and Pollard forthcoming for a discussion of scholastic hall-type buildings and the general development of the town's academic architecture.
 - ¹² The CAU only had immediate access to the recess exposure, the rest of the room having been re-panelled; the remainder had however been documented through a fine series of RCHM photographs.
 - ¹³ Given that the 'niche room' falls within the reduced portion of the nave the recess could not have been a window lighting the chapel. Since the college conversion it would always have opened onto a room on this side (i.e. was enclosed). Moreover, the plaster render is uninterrupted with no evidence of a window frame. An oriel window of c. 1500 within the back wall of the hall's upper gallery provides comparable viewing upon the assembled fellowship (RCHM 1959: 93, pl. 144); within Christ's there is also a viewing niche between the chapel and Master's Lodge (Willis & Clark 1886 II: 217–8).
 - ¹⁴ Within this report Arabic numbers have been employed to distinguish phases; there is only the broadest correspondence between its sequence and chapter house's ('Nunnery'/'College').
 - ¹⁵ Of small-medium ('hand') size, the longest recorded dimension of any daub fragment is 120mm with a maximum thickness of 70mm (eight pieces); all are only faced on one side indicating that the wall was thicker.
 - ¹⁶ 137 pieces of iron were recovered from the excavation as a whole, of which one hundred derived from horizon [042]. The vast majority were nails; also found were various strap/clamp fragments, buckles and large bolts/spikes. Two notable finds were a knife handle and spur, the latter complete but for one arm (see Evans 1995b: Appendix 8). Interestingly enough given the quantity of roof tile recovered, only one small piece of lead, probably for roofing, was retrieved (Square 'F').
 - ¹⁷ The excavations produced a total of 42 fragments of pipe stem and bowl, of which 17th century types accounted for approximately 60%; amongst the 18 pieces from the midden, none are earlier than c. 1650–1680, nor any later than c. 1780–1840 (see Pollard in Evans 1995b: Appendix 9). Eighty-three pieces of glass were recovered from the excavation, of which only three were of medieval attribution (see Dickens in Evans 1995b: Appendix 7).
 - ¹⁸ Alcock himself apparently never resided within the Lodge and instead remained at Ely. In balance of arguments relating to the aspirations of the college, equally important is the negotiation of the Master's space. Despite the religious affiliations of the first Master, it would be erroneous to directly link the chapel and the position/offices of the Master. Their physical proximity at the heart of the college only occurred through time, the Lodge effectively shifting eastwards with the exchange of the gatehouse rooms for those adjacent to the chapel within Cloister Court.
 - ¹⁹ This ethos has been evoked in the 1995 painting of the main hall with the marbling effect of timber elements.
 - ²⁰ For example, 8.7ha at Barnwell Priory; 12ha at Denny Abbey. Gray (1898) and Willis and Clark (1886 II: 115–6) agree that the nunnery and its precincts occupied the same site as the college. However, the land grants from Nigellus of Ely in c. 1133–69 (four acres) and Malcolm IV, King of Scotland and Earl of Huntingdon, in c. 1157–61 only amount to 14 acres, not the 28.7 acres (11.6ha) of the college grounds. If this was the size of the nunnery, then it would equate with one third of the total area of the enclosed lower town which it borders (36.5ha). Certainly a substantial holding, the degree to which rural/suburban monasteries were self-sufficient in arable/horticultural

produce would contrast with their urban counterparts.

See Gilchrist concerning the 'liminal' suburban situation of urban nunneries (1994: 64–5). Spanning the 11–14th centuries, north cloister-plan nunneries were not specific to a single order; St Radegund's is one of a number in East Anglia (Bungay, Chatteris, Crabhouse, Denny, Hinchingsbrooke, Ickleton and Shouldham). Gilchrist relates this arrangement of cloister and chapel to a tradition of symbolic association deriving from early medieval 'double monasticism' (1994: 128–38).

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Abbreviations used

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| BAR | British Archaeological Reports |
| CAU | Cambridge Archaeological Unit |
| PCAS | Proceedings of the Cambridge Antiquarian Society |

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