

GLOUCESTER CATHEDRAL AND PRECINCT

AN ARCHAEOLOGICAL ASSESSMENT

by

CAROLYN HEIGHWAY



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with contributions by

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and Arthur Price**

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For the third edition, produced for incorporation in the Cathedral's Conservation Plan, it was possible to incorporate in the database (section XIII) information from the invaluable rapid buildings survey produced by Richard Morriss (Morriss 2001). Otherwise the database has not been updated since the second edition, except for the correction of a few errors. I am also grateful to Michael Hare for further commenting on the first edition.

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Cover illustration: The west front
of Gloucester Cathedral, by James Ross, 1806

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I INTRODUCTION

The need for an archaeological assessment

The archaeology of a cathedral is defined as ‘the complete historical study of the fabric and material remains of a church, above and below ground; as well as its site, contents and historic setting, and...the community it has served.’¹

Recent legislation has made archaeology a factor in the planning process, and the Care of Cathedrals Measure and accompanying legislation in the ecclesiastical field has meant that Cathedrals are no longer exempted from controls on development, repair and conservation.² It is therefore important for the Dean and Chapter as the governing body of the cathedral to have access to a collection of information which can be used as a basis both for conservation practice and for formulating management strategies. CFCE guidelines emphasise the importance to the Administrative Body of commissioning an Overall Assessment.³

In the past when an archaeological assessment was required for a particular area of the Cathedral, it was created *ab initio* using a variety of sources including unpublished information. This Assessment creates a single consultation source, which should simplify future work of this kind.

An Overall Assessment facilitates the planning of future research on the cathedral by making available to intending researchers and to those who deal with the general public such as the Cathedral Guides, an up-to-date statement of the current state of knowledge.

An Overall Assessment creates research frameworks which can be born in mind by all those working on the cathedral. The existence of research frameworks should be part of the management of any archaeological and historical resource.

The importance of informed management has given rise to the initiation by English Heritage of projects to create Urban Archaeological Databases for a number of major historic towns in Great Britain. The Gloucester Urban Archaeological Database for Gloucester (GUAD)⁴ is currently in progress (1998). Parallel work on the Gloucester Cathedral Assessment will ensure that correct information is provided for GUAD, and that relevant information from GUAD is included in the Cathedral’s Overall Assessment.

Study area and scope of the study (Fig 1)

The area covered by this Assessment is most of the Cathedral Precinct as historically defined: that is the area within the precinct walls. It includes the King’s School, once the Bishop’s Palace. This part of the precinct does not come under the jurisdiction of the FAC and CFCE; nevertheless it is historically part of the precinct and includes the site of the 14th-century abbot’s lodging. The study area includes the modern Bishop’s Palace in Pitt Street, also outside the FAC and CFCE jurisdiction. The study area excludes most of the properties on the east boundary along St John’s Lane. In medieval times this was part of the precinct but has long since passed into other ownership; however a few archaeological observations have been included in St John’s Lane which have relevance to the nature of the abbey precinct wall.

The time period covered is from the Roman period to *c.* 1900. The post-medieval period after *c.* 1700 could be much more extensively dealt with, but the sheer weight of documentary material has precluded this. The GUAD excludes domestic architecture after 1701, unless listed; in the case of the cathedral precinct, nearly all the buildings are listed and all the standing buildings up to 1945 (with the exception of garages and sheds) are included.

No prehistoric material has yet come to light in the cathedral precinct area.

1 CFCE *Cathedrals and Archaeology: A Guide to Good Management* (1994), 3

2 C Bianco 1993, ‘Ecclesiastical Buildings in Use’ in J Hunter and I Ralston (eds) *Archaeological Resource Management in the UK: An Introduction* (Stroud), 89-99; C Bianco 1996, ‘Legislation and management in England and Wales’ in J Blair and C Pyrah (eds) *Church Archaeology: Research Directions for the Future* (CBA, York)

3 CFCE *Cathedrals and Archaeology* (1994), 9

4 J P Salvatore 1996, *Project Design for the Gloucester Urban Archaeological Database*

Method

Database

A database has been created of all records of past archaeological interventions (Figs 2 and 3). The database follows the format of records of the GUAD.⁵ The database includes an entry for each listed building.

A monuments database has not been compiled, as this is too small an area of the town for this to be necessary. Monuments are delineated on the plans (Figs 5, 6, 8). The database has been generated in Microsoft Access 97.

The following sources have been consulted

- Gloucester City Museum card index SMR created about 1979 by Yvette Staelens, not consistently updated thereafter. Numbers from this card index are prefixed GCM.
- The following journals : *Records of Gloucester Cathedral*; *Glevensis*; *TBGAS*; Friends of Gloucester Cathedral Annual Reports
- Records held by the Consultant Archaeologist of interventions since 1981. Numbers in the field 'Site Number' are the Consultant's site numbers.
- D of E catalogue of listed buildings
- English Heritage Schedule of Ancient Monuments
- Indexes and catalogues of the Gloucester County Library local history section
- Indexes and catalogues of the County Record Office
- Print index and subject index of the Society of Antiquaries, London
- Photographic records of the National Monuments Record.
- Database of the National Archaeological Record of the National Monuments Record

All records are related by the Harvard reference system to a source bibliography of works on Gloucester Cathedral (Section XII below). The bibliography is intended to include all archaeological works and the most important historical works relating to Gloucester Cathedral. It is not, therefore, solely a bibliography of works cited in the text. General works used in the text are cited in the footnotes.

The record numbers ('event numbers' in GUA) are indicated in the text in **bold** type. A printout of the principle fields of the database is given below in section XIII.

Maps

The following maps were compiled at a scale of 1:1250: Fig 1, Fig 2, Fig 3, Fig 5, Fig 6, Fig 10. Although they are reduced at a smaller scale in this report, they are available in the larger scale for future reference. Fig 4 (contours) and 7 (the Anglo-Saxon churches) are at an inexact scale. Fig 8 (medieval buildings) was created at a scale of 1:500 and is available at that scale; for this report it has been reduced to conform with the other figures. The maps in figure 9 are at various scales and are included for reference; the originals should be referred to for scaling. When the GUAD is complete it is expected that 19th century maps will be digitised for simple reference to the information contained therein.

Contour survey (Fig 4)

A survey of levels in the cathedral precinct was needed in order to relate the various archaeological observations to levels OD. The original proposal was for a full contour survey at 0.5m intervals. Since that decision, a full architect's survey of levels and drainage in the precinct has been under discussion. To avoid duplication, it was decided to limit the archaeological survey, securing only sufficient data for database reference purposes. An outline contour survey has been compiled (Fig 4) with contours at 1m intervals: this gives a general picture of relative levels. The contours are not always shown under buildings except for the cathedral church and some claustral buildings where the levels are available. The contours are compiled from the following spot-heights:

- a) on a survey by GMEU (marked as black circles on Fig 4)
- b) on levels and manhole covers provided by Gloucester City Council
- c) a level survey by Stainburn Wheatley of the cathedral precinct south of the lady chapel and south ambulatory
- d) a survey by Astam Design of relative levels in the nave
- e) a survey by Astam Design Ltd of relative levels south of the south porch

5 Salvatore, *Project Design*.

- f) OS spot heights
- g) OD levels shown on photogrammetric survey

Existing legislation and development constraints

Scheduled monuments

The scheduled monuments in the area of the study are:-

135	Infirmery arcade	County no. 219
136	Little Cloister	County no. 220
118	St Mary's Gateway	County no. 221
149	Wall N of King's School	County no. 393

These monuments are subject to the procedures of Scheduled Monument Consent under the Ancient Monuments and Archaeological Areas Act 1979: **149** is the responsibility of King's School and not of the Dean and Chapter of Gloucester Cathedral. The garden pavilion **148** in the grounds of Kings School (former County no 394) was de-scheduled in 1999.

Listed Buildings

The buildings in the precinct shown on Fig 2 are subject to Listed Building consent. St Mary's Gate (**118**) is also Scheduled. The listing also includes buildings within the curtilage of the principal listings and these lesser buildings are not all shown on Fig 2.

The Care of Cathedrals Measure and the area of Ecclesiastical Exemption

The Care of Cathedrals Measure 1990 (with the Care of Cathedrals Rules 1990 and Care of Cathedrals (Supplementary Provisions) Measure 1994) imposed controls for the first time on cathedrals which must now seek approval for works on the cathedral church and its associated buildings.

The area of exemption to Listed Building controls, but controlled under the Care of Cathedrals Measure, is shown on Fig. 1 as the area of Ecclesiastical Exemption.

Within this area, approval is required under the Care of Cathedrals Measure from the CFCE : (1) for carrying out works which would materially affect...the archaeological character of the cathedral church or any building within the precinct of the church...used for ecclesiastical purposes, and (2) for carrying out works which would materially affect any archaeological remains.

Works which do not come under these categories are determined by the Cathedral's Fabric Advisory Committee (FAC).

The area of the precinct as defined under the Care of Cathedrals Measure, but outside the area of Ecclesiastical Exemption, comes under the usual planning controls (listed building consent, scheduled monument consent, PPG16, etc). Within this area all applications for scheduled monument consent or listed building consent should be notified to the CFCE; a proposal requiring Scheduled Monument Consent may also require a separate application to CFCE.

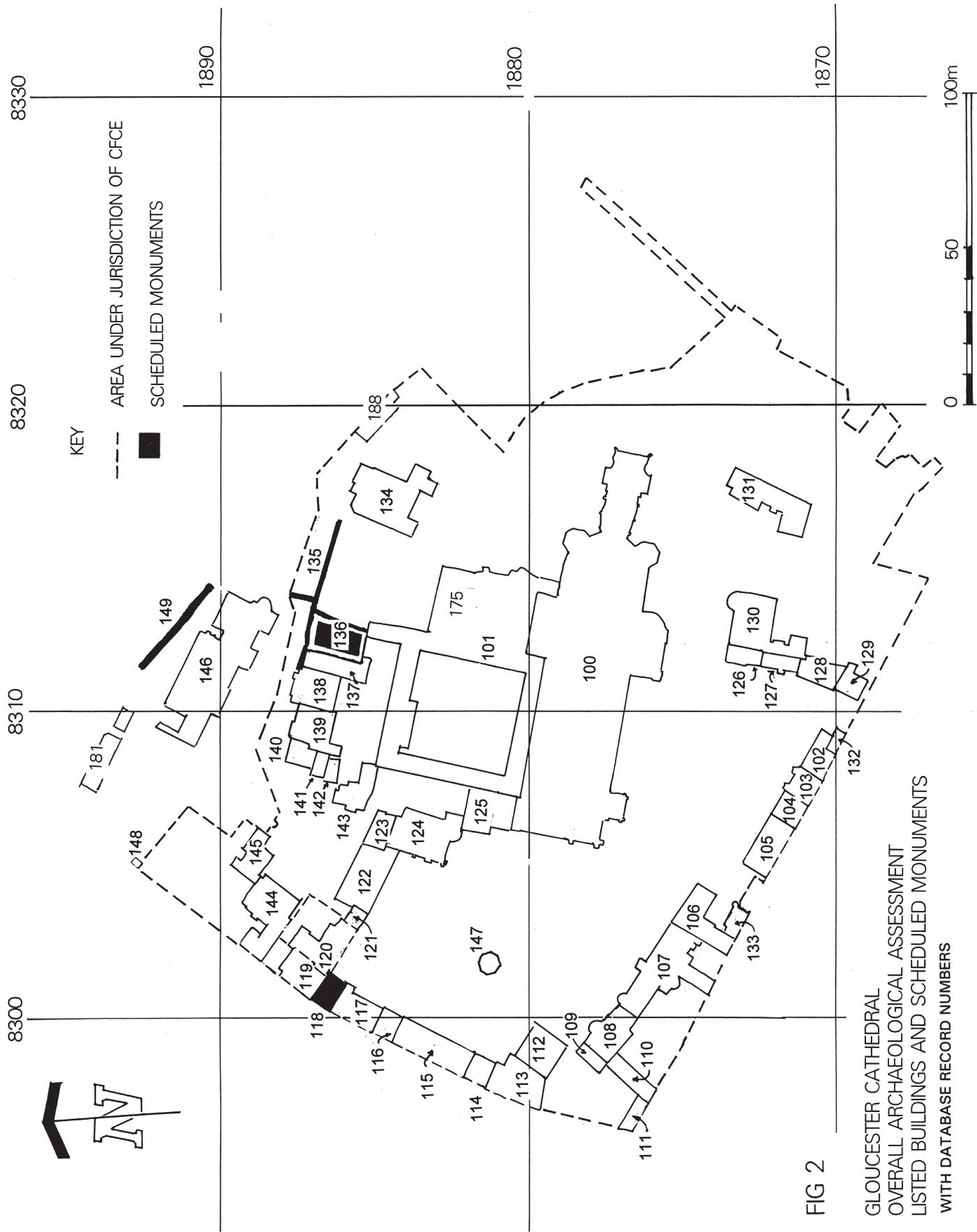


FIG 2

GLOUCESTER CATHEDRAL
 OVERALL ARCHAEOLOGICAL ASSESSMENT
 LISTED BUILDINGS AND SCHEDULED MONUMENTS
 WITH DATABASE RECORD NUMBERS

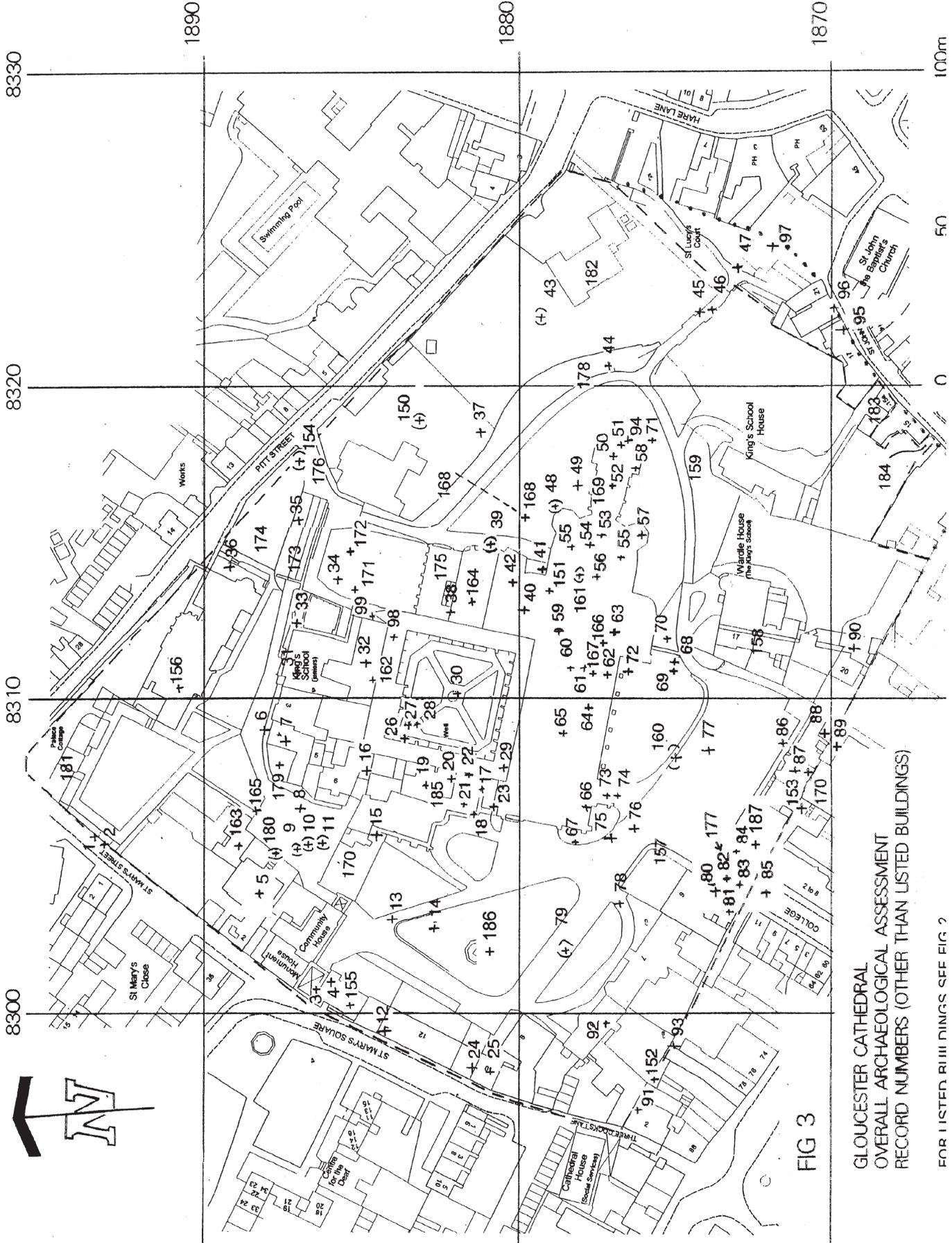


FIG 3

GLoucester Cathedral
 Overall Archaeological Assessment
 Record Numbers (Other Than Listed Buildings)

FOR LISTED BUILDINGS SEE FIG 2

II HISTORY AND TOPOGRAPHY

1: HISTORY

Gloucester is a Cathedral of the New Foundation, created in 1541; it took over the church and conventual buildings of the medieval abbey, which in turn had its origins in an Anglo-Saxon minster of 678-9.

The minster is reported in late medieval sources to have been founded by Osric, a sub-king of the Anglo-Saxon kingdom of the Hwicce. It was apparently founded as a double minster, that is a house of both men and women ruled by an abbess. Its history in the following centuries is obscure. It was probably reformed as a Benedictine monastery in the 10th or early 11th centuries (Hare 1993, 1-2; Finberg 1972b, 153-166). The church was rebuilt, or perhaps only refurbished, in 1058 (Hare 1993, 19-20).

The first Norman abbot, Serlo, created a new church whose foundation stone was laid on 29 June 1089; the church was dedicated 15 July 1100, though at that time the church was incomplete and building continued into the following century. Much of this Romanesque building survives, often clad in Perpendicular work; the Romanesque claustral buildings include the west and east slypes, the abbot's lodging (now Church House), and the chapter house. Successive abbots altered and beautified the church; in very brief summary the principal subsequent medieval alterations were:

13th century	the nave vaulting a tower or spire which has not survived infirmary (mostly demolished) refectory (demolished)
14th century	south aisle 1319-29 refurbishing of the south transept, 1331-36 choir reclad in Perpendicular style; Great east window 1337-51 north transept 1368-74 great cloister 1364-1412 infirmary cloister
15th century	west end rebuilt (1421-27) porch tower <i>c.</i> 1450 lady chapel shortly before 1500

The church escaped demolition at the Dissolution when the new See of Gloucester was created. Some of the claustral buildings were adapted to new uses; some demolished. Houses for the canons were constructed in the precinct, or adapted out of former monastic buildings.

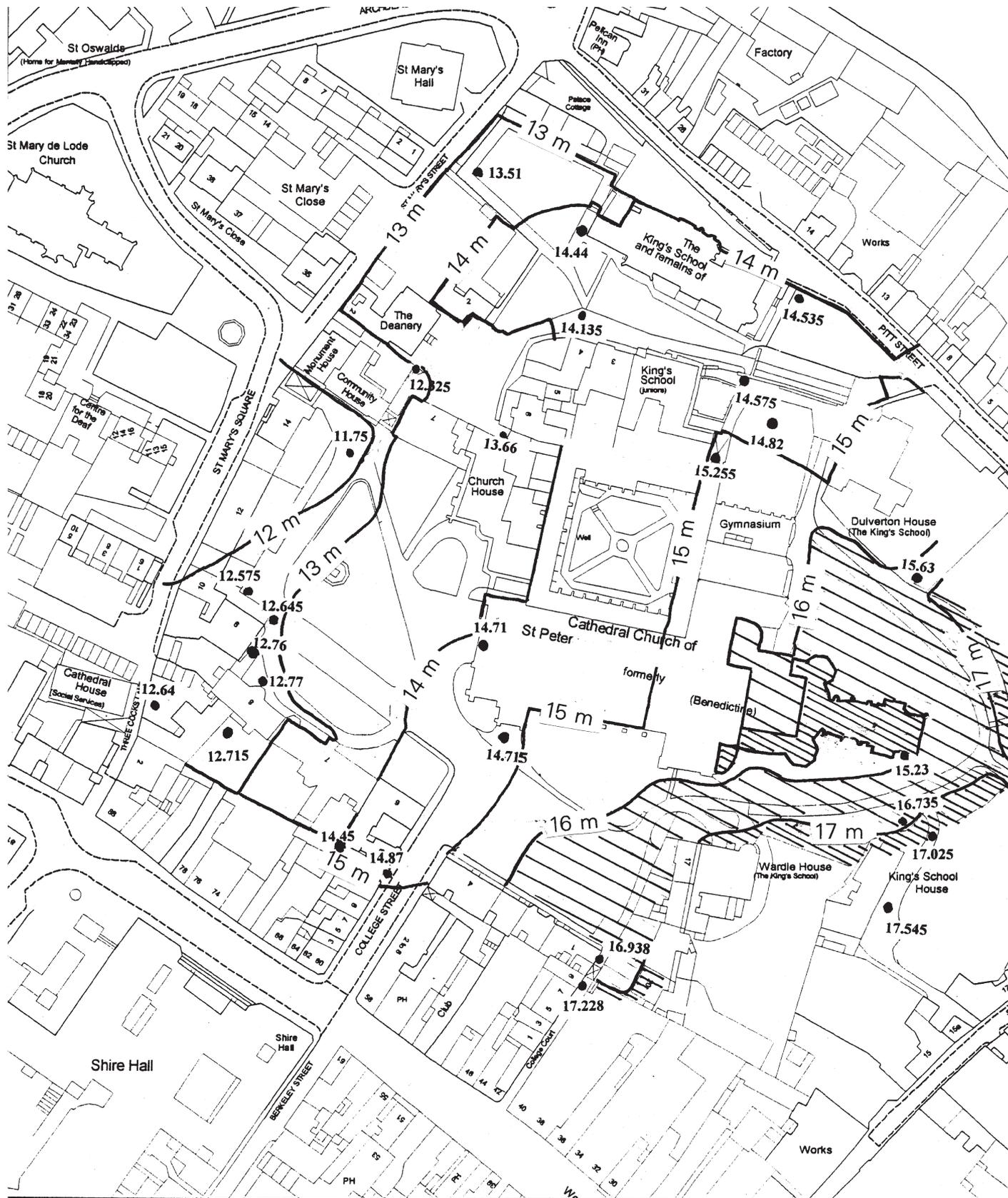
A detailed history of the abbey and cathedral is to be found in Welander 1991; this provided the background material for this report and contains detail of many areas or topics not covered here.

The primary sources for the building history are surveyed below (section V).

2: TOPOGRAPHY

The Roman and medieval town of Gloucester occupies a peninsular of land overlooking the River Severn; the cathedral and its precinct straddle the north-west corner of the Roman town. The Roman city wall-line quarters today's precinct and cuts across the late-11th-century abbey church just west of the crossing (Fig 5). All Ordnance Survey maps show the north-west angle and west side of this wall too far to the east: the illustrations in this report give the correct line, established in the 1970s.

The deposits resulting from Roman and medieval occupation have heightened the natural core of the town by some 2m; this and the fact that the precinct is on the slope of the hillock on which the town was founded means that there are appreciable changes in level from 17.5 at the extreme eastern limit



Based upon the 1998 OS 1:1250 and 1:2500 mapping with the permission of the controller of HMSO. Crown Copyright. Licence LA078050

FIG 4 CONTOURS

APPROXIMATE CONTOURS IN METRES ABOVE OD OF THE CATHEDRAL PRECINCT. HATCHING: LEVELS BETWEEN 16 AND 17M ABOVE OD. CLOSE-HATCHING: LEVELS ABOVE 17M ABOVE OD.

of the precinct to 11.5m above OD on the west, going down to 11.00 OD on the extreme north (Fig 4). The contours in general reflect this natural slope; the abbey and its claustral buildings have been adapted to the slope by a series of terraces. The levels shown at the east end of the church are those of the sanctuary and lady chapel, not the crypt. The levels show that the eastern parts of the church were raised well above the surrounding ground, to clear the crypt, but the uneven nature of the changes in level still reflects the natural topography to a certain extent. The southern boundary of the precinct has levels much higher without than within: this reflects the superimposition in the town of many centuries of building, whereas inside the precinct, because medieval buildings were still in use, the ground levels were kept low.

III PAST ARCHAEOLOGICAL AND ARCHITECTURAL STUDY

Interest in the structural history of the Cathedral and its surroundings could be said to begin in the early 18th century with the survey of Browne Willis, who prepared the first reasonably accurate plan of the Cathedral and its claustral buildings (Willis 1727). Nearly one hundred years later, John Carter and J Basire published their volume of etchings and plans including elevations and cross-sections (Carter and Basire 1807). Another and rather more accurate survey, with plans, cross-sections and drawings by H Ansted, was published not long afterwards (Britton 1829). The vernacular buildings in the precinct were little regarded.

Though it is reported that there was a Surveyor of Works for the cathedral in the 18th century (Welander 1991, 427), the Dean and Chapter were simply concerned to maintain the fabric, and study of that fabric was the province of visiting antiquarians. Successive deans appointed various architects for their chosen projects.

Thomas Fulljames was Surveyor to the Cathedral from 1797 (Welander 1991, 427). This Fulljames was uncle to another Thomas Fulljames, later also involved with work at Gloucester Cathedral. From 1817, one John Collingwood was Diocesan Surveyor; in the 1830s he was involved in repairs for the little cloister and other buildings (inf. Arthur Price, making use of early 19th-century accounts). The next Diocesan Surveyor, Thomas Fulljames, appointed in 1832, was often with his practice responsible for Gloucester cathedral. In 1839 Fulljames took as pupil Frederick Sandham Waller (1822-1905). Waller was appointed Supervisor of Works at the cathedral in June 1852, and was referred to as ‘the Architect’ from 1857 (Welander 1991, 446). This was the beginning of a long association of Wallers with the cathedral, and of a major restoration programme.

Part of the impetus for this programme probably derived from a visit of the British Archaeological Association in 1846.⁶ The distinguished visitors included George Godwin, editor of *The Builder*. The conference transactions, as well as an essay by E Cresy (Cresy 1848) on the architecture⁷ included some critical comments on the state of the building: ‘unless some proper supervision was exercised and some professional architect occasionally consulted, hereafter considerable expense would be entailed which might now be saved’ (Anon 1856, 603, quoting BAA 1846, 320-21). The comments were taken to heart. The crypt was cleared of rubbish in 1851, and ground lowered in 1855/6; a report from Waller was commissioned in 1855 (Waller 1855).

From 1863 Waller was indisposed due to a riding accident, and duties reverted to his partner Thomas Fulljames, who resigned in 1866 in favour of Gilbert Scott (1811-78). Under Gilbert Scott, the Clerk/Supervisor of works was John Ashbee (Welander 1991, 446). However in 1872 Waller was reappointed. Waller not only advised on and carried out repairs, he recorded and analysed the development of the buildings under his care, providing a series of published works (see bibliography) which explained with great graphic skill the changes which the building had undergone. Waller’s drawing of the Romanesque abbey church, published in 1890 (Waller 1890, plate 4) is still a vivid portrayal of the way in which the Romanesque building was encased with Perpendicular work. Waller’s philosophy of repair was stated at the beginning of his career as cathedral architect and is worth re-iterating:

The general principle kept in view throughout is to retain in all cases as much as possible of the old work, restoring only where actually perished, to take all precautions that can be adopted to prevent further decay in the external stonework by carrying the water from the building, and by such judicious repair as from time to time may be found necessary (Waller 1855)

Frederick S Waller was succeeded by his son Frederick William, and there followed a sequence of Cathedral architects, all in the firm which is today called Astam Design.⁸ All the cathedral architects until the 1990s operated from the same office at 17 College Green. The list of architects runs as follows:

c. 1857 Frederick S Waller
1862 Thomas Fulljames (of Waller and Fulljames)
1866 Gilbert Scott

1872 Frederick S Waller, appointed as Supervisor

6 BAA 1846: I am grateful to Arthur Price for pointing out the significance of this visit.

7 The crypt and nave were described as ‘Saxon’.

8 The firm which followed on from Fulljames and Waller: a useful history of the practice is in GRO , under the catalogue entry for D2593.

1878	Frederick S Waller appointed Architect
1892	Frederick William Waller (with his father, who died 1905)
1933	Colonel Noel Huxley Waller (with his father before 1933)
1960	Bernard John Ashwell of Waller Son and Ashwell, later Astam Design
1985	Christopher Basil Comely of Astam Design
1998	Ian Stainburn, of Stainburn Taylor, of Ledbury

Frederick William had been trained by his father in the same tradition of informed restoration and publication of the methods and results of restoration, and himself carried out some memorable recording projects such as an analysis of the tower structure (Waller 1911a) and a record of St Mary's Gate (**118**).

Gloucester cathedral church, and sometimes its claustral buildings, were the subject of various antiquarian attentions in the late 19th century and afterwards. Unfortunately, Gloucester unlike many other cathedrals, did not come in for detailed study by Professor Robert Willis (1800-1875),⁹ and all that survives is the text of a lecture by Willis delivered to the Archaeological Institute (Willis 1860).

An enthusiastic 19th-century antiquary was W St John Hope. In 1897 Hope published an extensive survey, historical and architectural, of the archaeology and architecture of the cathedral church and its precinct (Hope 1897). This was accompanied by a plan, based on John Carter (Carter and Basire 1807), of the cathedral precincts, and a plan of the bishop's palace before its demolition *c.* 1850 (**156**). During this article Hope lets fall the fact that he carried out excavations on the site of the refectory; he also observed discoveries in the cloister (Hope 1897). In neither instance did he leave any known records.

There is surprisingly little documentation from the early 20th century, either of work done or of research on the structure. Recent cataloguing (see VI, below) has however located annual architects' reports from the early 1920s onwards. From 1937, with the formation of the 'Friends of Gloucester Cathedral' there was a summary architect's report published in the Annual Report of the Friends. This often included historical material, particularly after the advent of Bernard Ashwell into the practice, e.g. the discoveries at Little Cloister House (**138**). Bernard Ashwell had a profound understanding of the structural history both of the cathedral church and of the surrounding buildings, and carried out a recording project on the south transept (Ashwell 1985a). Ashwell published in his quinquennial (Ashwell 1985b) extracts from the senior Waller's Log Books; Ashwell also maintained notes on the historical structure of the precinct buildings, though the whereabouts of these files is at present unknown. Finally, Gloucester's two quinquennial reports, of Bernard Ashwell (Ashwell 1985b) and Basil Comely (Comely 1998), provide a comprehensive description of work done in more recent years.

Antiquarian studies of various aspects of the cathedral in the twentieth century tended to be on specialist aspects such as the great east window (Rushforth 1922); a number of specialist studies were done in the form of PhD theses (e.g. Wilson 1980; Thompson 1977). An important landmark was a 1981 conference of the British Archaeological Association and subsequent publication (BAA 1985) of the papers therein. Much material of this nature is summarized and set in context by David Welander (Welander 1991).

Until about 1981 work of an archaeological nature, buried archaeology, as it arose under planning permission or by informal arrangement, was carried out by Gloucester Museum Excavation Unit. The writer was appointed as Archaeological Consultant in 1983. Occasional watching briefs were maintained and a few evaluations. In the early 1980s the archaeologist was consulted only where buried deposits were concerned. There was then no formal programme of building record before repair. Although Bernard Ashwell carried out recording on the south transept, as well as recording of the timber roofs before their removal in the 1960s (see below, Timber Roofs), the potential costs of such recording operations made a consistent recording policy seem unattainable. Other smaller recording projects were done by the cathedral's own staff, such as a drawing of tiles in the lady chapel before the construction of a new plinth for the Lancaut font in 1986. In 1988 the Cathedrals Advisory Commission, as it then was, visited Gloucester in connection with proposed restoration and strongly supported the initiation of photogrammetric survey. The tower was recorded by rectified photography in 1989, and in 1994 a survey by Atkins AMC was produced with English Heritage funding. This survey did not cover all the cathedral elevations (it omitted the choir, which was then under scaffolding, and the north and south elevations of the south transept; and no internal elevations were done) but was an invaluable beginning both as a base for historical analysis and as a record for architect and stonemasons.

⁹ M W Thompson 1996, 'Robert Willis and the Study of Medieval Architecture', in T Tatton-Brown and J Munby, *The Archaeology of Cathedrals* Oxford University Committee for Archaeology Monograph no 42

In the meantime the Care of Cathedrals Measure 1990 had become law, making archaeological record before development a statutory requirement; English Heritage grants also carried conditions concerning building records.

An awareness of the importance of architectural recording prompted inquiries into the nature and whereabouts of records of past repairs. A summary of the known material is set out below (section V). The existence of six generations of architects operating from one office in the precinct meant that over a century of records accumulated. Many records were deposited at Gloucestershire Record Office in the period 1970-1993 (GRO D2593). Other records are still being catalogued by the cathedral librarian.

IV THE ARCHAEOLOGY OF THE PRECINCT

1: ROMAN

The relationship of the precinct site to the Roman wall has already been explained. Roman deposits are at 1m to 3m depth. The south-east area of the precinct is part of the walled Roman town (Fig 5); almost nothing is known of it, except that it contained at least one building with a tessellated floor (70). Further south-east in this quadrant of the Roman town were public buildings, perhaps including the baths *paelaestra*.¹⁰ It is also worth noting that nearby St Oswald's Priory, built c. 900, made use of a dismantled Roman building, probably a temple, which could have been in the area of the precinct.¹¹

Within the area that later became Gloucester cathedral precinct, almost every deep excavation produces quantities of Roman pottery (30, 10, 9, 48) or coins (150, 43, 11, 79). The position of the Roman rampart and stone wall has been confirmed several times (46, 45, 41, 47, 97). A borehole encountered what is almost certainly the rubble foundations of the Roman city wall at 3m depth, in the expected position. It is significant that the borehole encountered no masonry and not much foundation stone: obviously the wall as well as its foundation had been robbed, presumably to build the abbey (49). There is evidence that Roman buildings were capable of plunder as late as the 13th century, for the foundations of the 13th-century infirmary wall had as their lowest course a layer of pitched Roman tegulae (34).

There are several points in the Cathedral where the blockwork and tooling is of such a size as to suggest re-use from Roman buildings (for instance on the wall of the west slype, 23). High in the abbey south nave wall, visible in the south aisle roof space, is a Roman inscription commemorating a cohort of Legio XX (64). Apart from its intrinsic interest as evidence of the presence of this legion, the inscription, which was used in its present position in the 15th century, is a reminder that much of the stone of the cathedral must have been re-used from the Roman town, and recycled many times.

Excavations to underpin the foundations of St Mary's Gate in 1916 uncovered 1.5m of made ground, and south of the gateway some walls on a different alignment from the gate. These walls seem highly likely to have been Roman (4). Outside St Mary's gate to the west there was a substantial Roman building under St Mary's church.¹² What may have been the 6m deep late Roman city ditch was seen in the 1890s under what is now College Street (187).

2: ANGLO-SAXON

The layout of the town of Gloucester in the early post-Roman period is very uncertain. The defences certainly survived, and were a major influence even on the medieval town, but the Roman street-pattern fell into disuse, probably long before the late 9th century. The medieval street pattern of Gloucester is almost entirely non-Roman, comprising a grid which has been ascribed to the refoundation of the town by Aethelflaed of Mercia in the early years of the 10th century (VCH iv, 6-8). The Anglo-Saxon town or *burh* was, on one theory, contained within the Roman walls¹³ and on another, extended west down to the river (VCH iv, 8; Garrod and Heighway 1984, 4-6). Much depends on the date of the demolition of the western Roman wall, thought by Hurst to have taken place in the 11th century;¹⁴ recent work cannot confirm or refute this.¹⁵ The actual date of the wall demolition may not be retrievable, since this could have occurred at different dates for different lengths. Moreover the Anglo-Saxon *burh* could have extended to the river and still left the west section of Roman wall, or parts of it, in place.

Whatever the arrangement for defence, the area west of the Roman wall was a significant Roman and Anglo-Saxon suburb. It contained, to the north-west, the 'New Minster' of St Oswald, constructed by Æthelred and Æthelflaed of Mercia c. 900.¹⁶ It also contained the church of St Mary de Lode, of

10 C M Heighway and A P Garrod 'Excavations at nos 1 and 30 Westgate Street, Gloucester: The Roman Levels', *Britannia* xi (1980), 84

11 C M Heighway, and R M Bryant, *The Golden Minster: The Anglo-Saxon minster and medieval Priory of St Oswald, Gloucester* (1999).

12 R Bryant, 'St Mary de Lode', *Glevensis* (1980); R Bryant and C Heighway forthcoming, 'St Mary de Lode, Gloucester', TBGAS

13 H Hurst, *Gloucester: The Roman and Later Defences* (1986), 137

14 Hurst, *Defences*, 129-131

15 See e.g. *Glevensis*, 23 (1989), 5

16 Heighway and Bryant, *Golden Minster*.

Anglo-Saxon or even British origin, which is reached via the abbey's principal gate, St Mary's gate. The position of St Mary's gate, a 12th-century structure in origin, reflects both the importance of the church of St Mary, to which it directly leads, and the importance to the abbey of access to the riverside quays. The medieval layout of the property boundaries around St Mary's, and the shape of the space around the church (sadly eliminated by redevelopment in the 1960s) similarly relates St Mary's to the abbey church and to its gate. The compact block of properties around St Mary's Square was the site of the abbey's ancient burghage properties, numbering 52 houses *c.* 1100¹⁷ (Fig 6, 7).

When a new monastery (minster) was laid out in the part-ruined Roman town *c.* 679, its precinct may have been marked out as a block of Roman *insulae* bordered by streets on the east and south, and by the Roman city wall on the north;¹⁸ the precinct area must subsequently have extended across the Roman street-line presumably in the 8th-9th centuries when properties were ill-defined. The extension of the early precinct over the wall to the north is well-documented: this strip of land (Fig 7) was taken by St Peter's abbey from the ownership of St Oswald's priory on two occasions in 1109-14 and in 1218 (VCH iv, 275), to facilitate the extension of the claustral buildings to the north. However, the western part of the precinct may have been under the abbey's jurisdiction much earlier; it is significant that there is no surviving record of the acquisition of this area. Such a record would surely have been retained with care if the extension took place in the 12th century.

In the middle ages the precinct wall of the abbey was surrounded by a lane. Outside King Edward's gate, this lane seems to have surfaces dating to the 10th to 11th century (83). Since this gate is west of the Roman west wall, the early date of these street metallings may be an indication that by the 11th century the precinct had already extended over the Roman west wall, unless these levels are the remnant of some early layout of which nothing is known.

With the Anglo-Saxon precinct partly uncertain it is even more difficult to establish the position of the Anglo-Saxon minster church, whose remains can be assumed to be deeply buried and robbed.

The first question to consider is whether the site of the Anglo-Saxon minster church was ever moved. Most accounts of the history of the abbey cite a document published by Dugdale and known as the 'Memoriale', which states that the site of the abbey was moved in 1058 (Dugdale 1849). This document was written in 1608 and cannot be reliable evidence for the Anglo-Saxon topography (Hare 1992, 30-31). The site of the old minster church probably remained the same until its rebuilding in 1089. There, however, alternative sites for the old church: these have been considered by Michael Hare (1992; his figure reproduced here as Fig 7). There are three:

1. The area of the later infirmary
2. the north-west corner of the Roman town
3. under the present cloister

Site 1 derives from the 'Memoriale' which has little to commend it: it also puts the old church in the area of the precinct known to have been acquired only in the 12th century. Site 2 is favoured by many commentators because it is inside the Roman walled circuit and accords with the theory that the Roman wall survived until the late 11th century. This site is a strong possibility. Site 3, favoured by Hare, places the minster church in closer relation to St Mary de Lode church. Important Anglo-Saxon church sites often included more than one church, in alignment, and Hare suggests that St Mary's church and the old minster church were in alignment, and that the latter church may have been in the general area of the present cloister garth (Hare 1992, 28). There is also the evidence of an archaeological watching brief, under the remains of 12th-century range west of the cloister, which disclosed a cemetery which appears to date to the 10th or 11th century (19). This could, perhaps, date to the early years of Serlo's church (as Hurst believed¹⁹), but this would seem to be an unsuitable site for the monastic cemetery: i.e. under the claustral buildings already being laid out.

17 VCH iv, 66; R Holt and N Baker *The Church in the Towns in the West Midlands*, forthcoming

18 C M Heighway et al *East and North Gates* (1983), 12-13

19 Hurst, *Defences*, 130-131

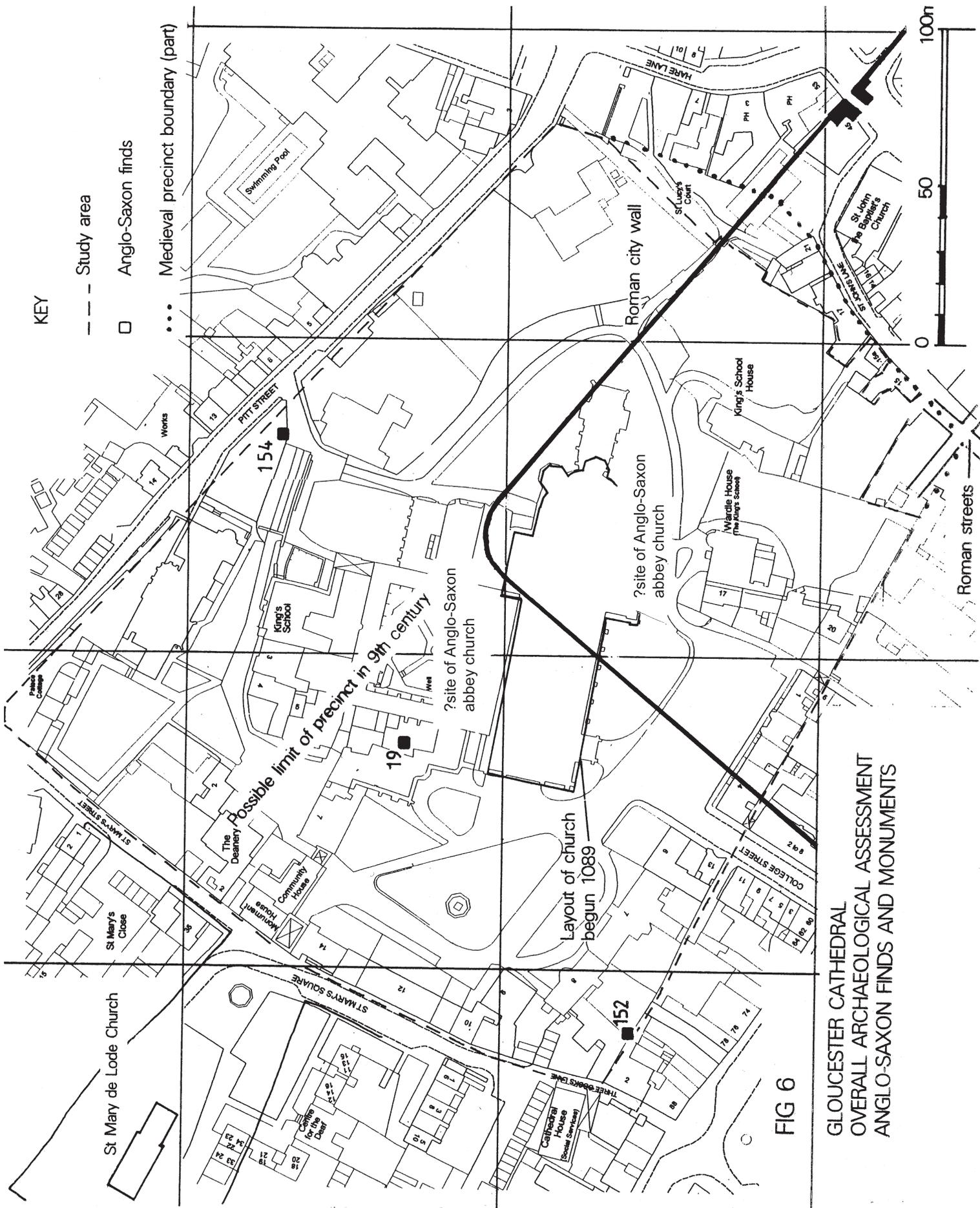


FIG 6

**GLOUCESTER CATHEDRAL
OVERALL ARCHAEOLOGICAL ASSESSMENT
ANGLO-SAXON FINDS AND MONUMENTS**

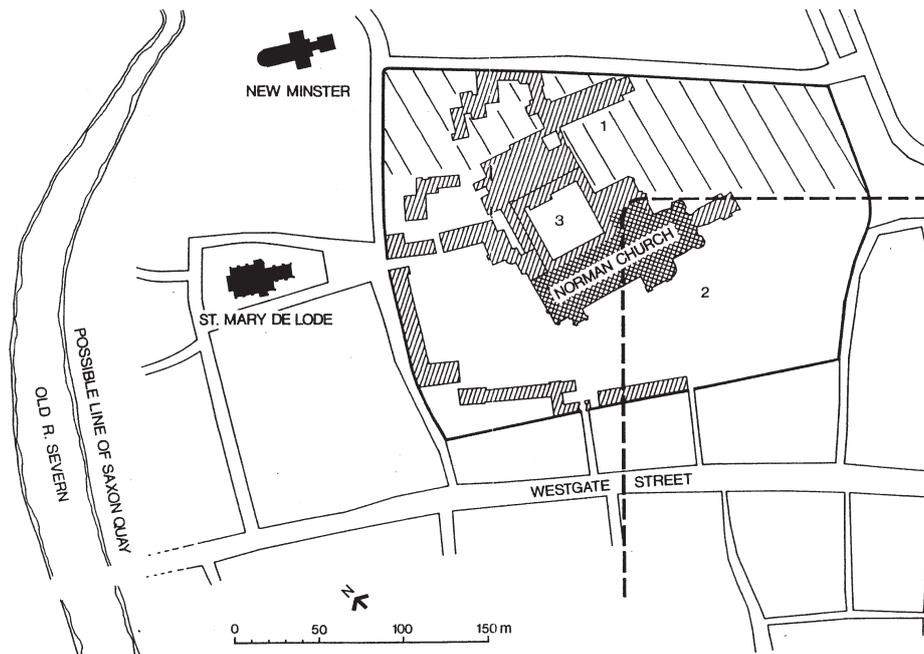


FIG 7 Plan of the north-west corner of Gloucester to show the possible sites (1, 2 and 3) of the Anglo-Saxon Old Minster (St Peter's Abbey). The hatched area is that acquired by the abbey in 1109 and 1218. Drawing by Phil Moss, reproduced from Hare 1993, with permission. The broken line is the Roman city wall.

One certain deduction can be made from the position of the Norman church: when Serlo began it in 1089 he must have been absolutely certain of being able to build not only over the Roman wall and ditch but also at least 50m to the west of them (Fig 7).

There have been few finds of Anglo-Saxon date in the precinct. The Anglo-Saxon period in Gloucester is in any case virtually aceramic until the 10th century. A fragment of limestone-tempered pottery of 10th-11th century date (Gloucester fabric TF 41A) was found on the south limit of the precinct (152). The depth of Anglo-Saxon deposits is also uncertain. The 10th-11th century metallings outside King Edward's Gate (83) were 2m below the present ground surface.

In the 1930s there was a roundel of Christ built into 'the eastern wall of the garden of the Bishop's Palace' (now King's School). This sculpture has been variously attributed to the early 10th century and to the 12th. It may have been moved several times before being built into this wall. It is now in the tribune gallery (154).

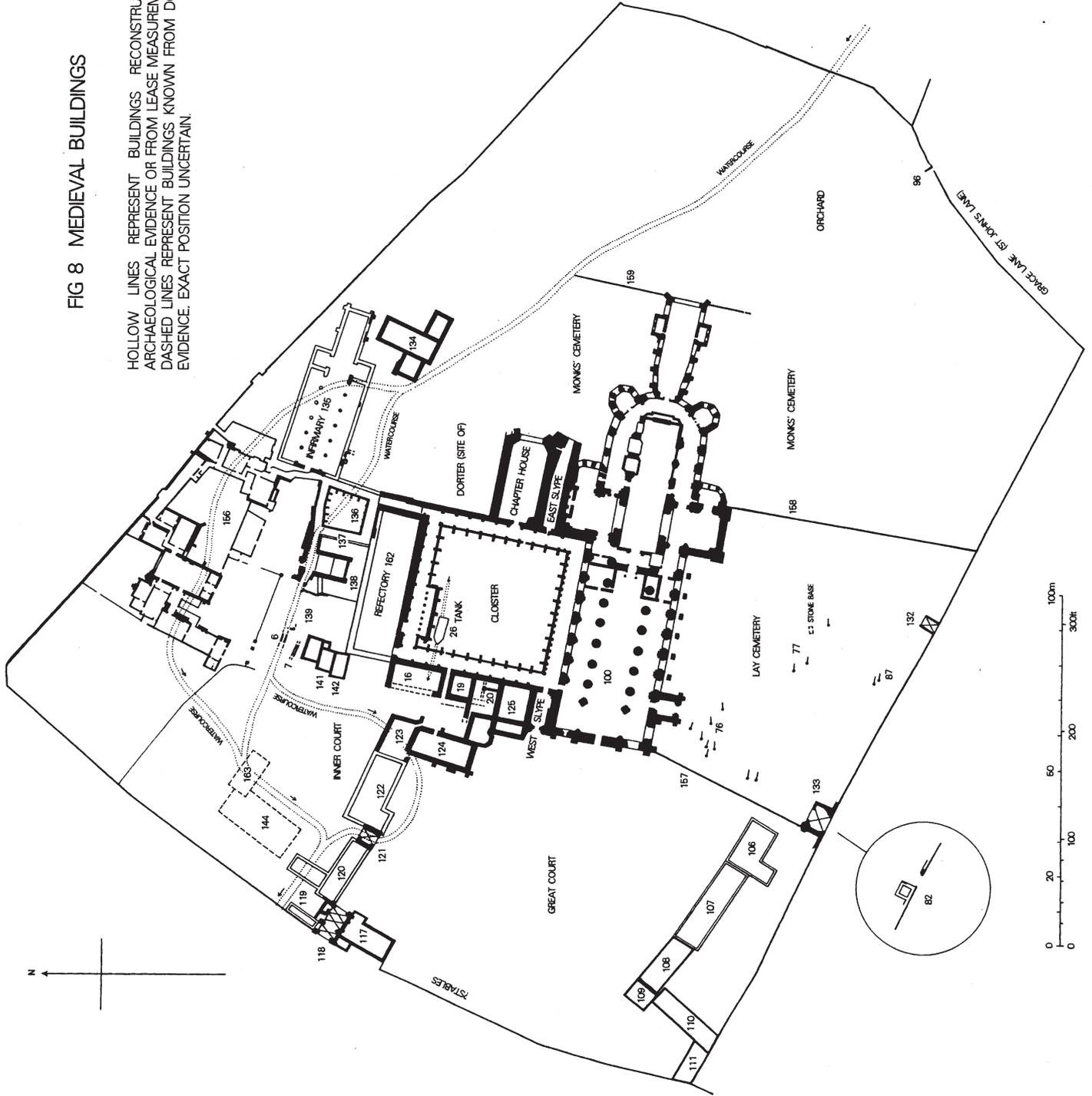
3: MEDIEVAL

The layout of the medieval precinct at Gloucester abbey may be said to date to the foundation of Serlo's abbey church in 1089. Whatever the Anglo-Saxon layout may have been, the new church crossed the line of the Roman city wall, and in 1104-13 extended its boundaries over land that had belonged to St Oswald's minster; a stone wall was built presumably around the whole precinct (Hart i, 13; ii, 65; the abbot 'surrounded the abbey with a splendid stone wall' trans William Barber, in Welander 1991, 604). To the north, this wall must have been south of the line of the present north wall, because in 1218 a second extension to the north took place, to a new wall which had been built shortly before. This second acquisition of land was described as lying 'between the wall of the abbey [presumably abbot Peter's wall] from the garden in a straight line descending by the refectory the larder and the bakery as far as the new wall next to St Oswald's' (Hart, i, 25, 83).

Thus by 1218 the precinct wall reached the limit shown on Figs 7 and 8 and which is for the most part the precinct limit as it is today. Most of the subsequent encroachments have been on the west frontage of St John's Lane (medieval Grace Lane); these properties passed out of abbey/cathedral control in the late or post medieval period. In 1455 there were no tenements on the west side of Grace Lane, only the abbey wall;²⁰ by 1796 (Fig 9.2) a few tenements on the west side of the lane, west of the abbey boundary, had been built.

FIG 8 MEDIEVAL BUILDINGS

HOLLOW LINES REPRESENT BUILDINGS RECONSTRUCTED FROM ARCHAEOLOGICAL EVIDENCE OR FROM LEASE MEASUREMENTS. DASHED LINES REPRESENT BUILDINGS KNOWN FROM DOCUMENTARY EVIDENCE, EXACT POSITION UNCERTAIN.



One observation suggests a medieval gateway into the abbey precinct along this length (**96**). This inturned piece of wall is on the line of a house wall; perhaps this section is late medieval? An east gateway is mentioned as made in 1626 (VCH iv, 286).

The abbey wall has been observed at various points on its perimeter. In the north-west sector (**1**) the 1218 section of wall was of lias stone with foundation 1.2m wide; there was also evidence of two secondary rebuilds, and there have surely been many more over the centuries in different sections. Observations on the southern perimeter (**91, 93, 89**) also indicate a wall of lias stone. The best-preserved and earliest upstanding sections, with the least post-medieval patching and alterations, are those protected from weathering by forming the cellar walls of later houses. An example is in the cellar of 3 College Green (**153**); the wall here is entirely of lias stone in well-coursed blocks, some of considerable size.

The principal gate into the abbey was St Mary's gate (**118**). This is a 12th-century structure, rebuilt in the 13th century (VCH ii, 281). The importance of its position, facing the abbey's church of St Mary de Lode, and with access to the quays, has already been emphasised. The gate was heavily restored in 1916, but a detailed record of its former appearance was made by Waller. The two other gates, King Edward's gate (**133**), formerly the Lich Gate, and St Michael's gate (**132**), were lesser entrances giving access mainly to the abbey's cemeteries. King Edward's gate, which is 16th-century in its present form, had earlier precursors and seems always to have been an entrance to the precinct, albeit a minor one, even before its first documentary mention in 1223 (VCH ii, 281; **80, 81, 82, 83, 85**).

The perimeter wall was not the only medieval boundary wall. In the middle ages the precinct was divided into sections by stone walls. The western area of the precinct, accessed by the principal entrance, St Mary's gate, was known as the Great Court. This was marked to the east by a stone wall (**157**) whose construction date is unknown. One observation (**80**) describes this wall as being faced with lias and oolite stone, measuring 450mm wide, and bonded to the foundations of King Edward's gate (the gate is 16th-century, but there is a medieval gate beneath it: **82**). Wall **157** was reputedly demolished in 1768 (Welander 1991, 424) although it is absent from the map of the precincts made c. 1761-4 (Eward 1985, 312). It is shown in Speed's map of 1610 (Fig 9.1).

Another medieval wall (**158**) extended from east of St Michael's gate to the south-east corner of the south transept. It was demolished in 1858 (Welander 1991, 454), although by that time much of its length was incorporated into the backs of houses on the east side of College Green, where it still survives. It was built of coursed lias with decorative bands of harder stone, and its surviving height is about 2.8m (**90**). This wall is also shown on Speed's map (Fig 9.1).

A third wall, **159**, is shown on 19th-century maps (e.g. Welander 1991, 324 plate 17); it crossed the whole precinct from north to south, and was interrupted by the east end of the late 15th-century lady chapel. It has been said in some guides that this was the eastern precinct wall (Massé 1898, 103). In fact the precinct limit was on St John's Lane (Grace Lane); wall **159** was the east limit of the monks' cemetery. Local hearsay²¹ states that before the lady chapel was built there was access around the east end of the old, 13th-century, lady chapel. When the lady chapel was built in the late 15th century, a tunnel was provided for access from one part of the monastic cemetery to the other. Investigations in the lady chapel undercroft passage suggest it had another purpose also: to provide access for a drain which may have flowed from south to north taking storm water from higher ground on the south towards the stream on the north (**94**).

The line of wall **159** is very uncertain. The line shown in Figure 8 is based on property boundaries surviving in 1796 (see Figure 9). It is hard to avoid the suspicion that the wall shown by Massé (1898, 103) was a speculation which has since solidified into fact and is now shown on OS maps. Such maps show Wall **159** cutting across the ground plan of King's School house (for which see **130**); this may be the case and there may be details of the wall embedded in the house. The construction date of wall **159** is unknown and it has never been observed archaeologically. Welander's date of 'before c. 1460' (Welander 1991, 305) may be based on the assumption that it was there before the lady chapel (1488-82).

There is a great wealth of medieval remains in the standing buildings of the church, its claustral buildings, and its prebendal houses. These are mapped on Fig 8. The numbers on Figure 8 refer to the sources in the database. The plan does not assign construction dates but attempts to show the buildings in the precinct as they were just before the Dissolution.

21 Gladwys Davies attributed this theory to Professor Robert Willis: Davies 1976.

The Outer Court or Great Court

This was the reception area of the abbey. It was accessed by the principal gate, St Mary's gate, and contained the guest-houses for people of various status. The most high-ranking guests were entertained in or near the abbot's lodging. This was at first in the 12th-century block west of the cloister (125), though in the 14th century moved to the north side of the precinct (156).

Next to the 12th-century block (125) on the north was a range of buildings which also formed part of the abbot's lodging, and would probably also have been used to entertain high ranking guests.²² The first range has stone walls, two storeys, and a 15th-century timber roof, now part-hidden by Jacobean panelling; this range can be seen to have had a complex history of development (124; see also 15).

The building to the north of this, now known as the 'Parliament Room' (123) is a 15th-century timber-framed hall of three bays on a stone undercroft. On the north side of the stone undercroft are the remains of a 13th-century window, very close to the west termination of the building and cut away by the corner. The ground floor of this building can thus be said to be 13th century and to belong to a longer building, possibly a ground-floor guest hall which may have extended as far as the inner gate on the west.²³ The half-timbered 'Parliament Room' of today, though it uses the 13th-century foundation ground-floor wall, has had its present design since the 15th century. The next building to the west (122) must also have been adapted in the 15th century, but prior to that adaptation could have comprised a medieval building on the 13th-century foundations. 122 was known in 1649 as the 'old void and ruinous house' and called 'The Parliament House' (Oliver, p 274, p 281). It may therefore have been the site of the 'Great Hall in the Courtyard where...the King held his parliament' built by Abbot Horton [1351-77]²⁴ (although there are also other candidates for this; St John Hope located it in building 124). The western wall of 7 Miller's Green (122) is of lias stone and can be seen to predate the 14th-century gate.

By the 19th century, only 123 still existed as a medieval building, and *faute de mieux* became known as 'The Parliament Room' (Massé 1898, 115). However, judging by the description of the pressure on conference space in 1378,²⁵ building 123, whatever its then form, can hardly have escaped being used for some business at that time.

Guests of middle rank would be housed somewhere in the great court, and the 15th-century range of buildings in the south-west corner (109-111) could have been part of this accommodation. Paupers were housed close to the great gatehouse and alms would be distributed from there (Welander 1991, 306). It has been suggested that the almonry was next to the inner gate to the west (VCH iv, 282). There seems no very good reason for assuming this, although this building (now Community House) has stone foundations and is on the same plan as buildings of 1649, so its footprint is probably medieval (120). St Mary's gate (118) includes a complexity of blocked doors and windows which could also be related to the distribution of alms; to the south of this gate is a 14th-century timber-framed building on a stone base (117) probably the Almonry (Eward 1985, 33).

To the south of this, along the west side of the Outer Court, were stables from the 13th century onward; these may have extended to the walled dunghill, with a gate on its north side, which stood in the 17th century in the south-west corner of the precinct (VCH iv, 282; Eward 1985, 32).

By the late 18th century the Outer Court was known as the 'Lower Churchyard', which implies it had been used for burials, although it is unclear when (or if) burial started here. All the physical evidence for burials seen so far has been in the Upper Churchyard or lay cemetery (76, 77, 87).

The lower churchyard ceased to be a separate area when wall 157 was taken down in 1768, and the area was landscaped with walks lined with lime trees (Welander 1991, 424; see also Fig 9.2 for a plan of 1796).

The inner court

This contained the abbey's service buildings including a mill, a kitchen, bakery and brewery (VCH iv, 282). The layout of these can be derived in part from the survey of 1649. To the west of Miller's Green were two tenements with extensive gardens (144). North of these was the mill, with its brooks and watercourses (163). A stone house on the opposite side of the green (142) was probably one of the service buildings, although nothing is known about it. A stone-based, half timbered structure north of

22 For instance, King Edward II was entertained *in aula abbatis* in 1307-29; Hart I, 44.

23 A forthcoming PhD thesis by R Rowell (Rowell 2000) includes investigation of these buildings.

24 Welander 1991, 632; VCH iv, 282.

25 Hart i, 53.

that was probably also domestic (141). Investigations in 4 Millers Green (140) disclosed a wall with two arched windows (7). There is plentiful documentary evidence that no 3 Millers Green (139) was the Common Kitchen, although no survey has yet clarified any structural details. Little Cloister House (138), with its stone vaulted 13th-century undercroft and upper hall, is reputed to have been the abbey misericord.

The lay cemetery

There is every reason to believe that the area south of the Cathedral church has been used for burial since the early 12th century, and it is likely that the area also includes burials from the Anglo-Saxon period back to the late 7th century. By the post-medieval period the cemetery was bounded by walls 157 and 158, probably monastic in date. From 1771 all burials in this cemetery had to be in a vault or bricked grave; by 1788 most of the gravestones had been laid flat or cleared. Iron railings were put round the churchyard in 1808 (Welander 1991, 425). The area shown in 18th-century maps (Fig 9.2) was confined to the space just south of the church, but earlier burials had extended right up to the south wall (87). In the open space, now a car-park, the burials can be very shallow, as little as 0.3m deep, because earlier, higher ground levels were cleared in the 19th century, and because not all ages were particular about burying 6 ft deep. Post-medieval brick vaults have so far only been encountered in the area close to the church. None of the burials encountered in the southern part of the churchyard have coffins and these may be the burials of the humbler people. Access to this cemetery was via both King Edward's Gate and St Michael's Gate; the former gate used to be called 'Lich Gate' since it was the route by which corpses were brought from the town to be buried in the churchyard. Fig 8 shows observed burials; it is noticeable that when these were made, King Edward's gate and the south porch were not the major entrances they have now become: it may therefore be that all the burials observed predate the 15th century.

An important medieval feature of the churchyard was a great cross. This was taken down 1646-7; its demolition took six men a whole week (160). Its exact position is not known: it was probably in the burial ground. A stone base noted during a watching brief in 1995 (77) may have belonged to this cross. Commemorative crosses were a major element of the medieval town and there were several at key points in and around the town (VCH iv, 250).

The monks' cemetery

East of wall 158 is the area traditionally described as the monks cemetery (Welander 1991, 305). This lay both north and south of the 15th-century lady chapel; it is presumably the cemetery mentioned as the site of the new lady chapel of 1224 (Welander 1991, 106-7). The east limit of this cemetery is marked by wall 159 though, as mentioned earlier, the course of this wall is in some doubt.

No evidence has ever been found in this area of articulated burials, so the depths of the monastic burials is unknown. The only relevant record – a bore-hole – shows topsoil 2m in depth (71). Excavations south-east of the lady chapel uncovered brick garden walls at 700mm depth (94). Burials in this cemetery must be deeper than 1m even allowing for the fact that ground level close to the lady chapel was lowered in the 19th century. In c. 1855 a trench 4 ft wide, 10 ft deep and 120 ft long was excavated north of the lady chapel. This trench was for the main drain out of the crypt, and it was backfilled with the bones cleared from the crypt ossuary (168). About twenty years later the drain became blocked, and rather than disturb the bones, a new drain was dug. Neither of these major drainage projects recorded the finding of burials, but perhaps these were disregarded. An excavation about 0.7m deep for heating pipes crossed the area north of the lady chapel in 1971, but only disarticulated bone was retrieved (41). It can probably be assumed that burial in this area ceased not long after the Dissolution. In the late 17th to early 19th century this general area was landscaped and covered with trees and shrubs and was known as 'The Grove' (Welander 1991, 384-5, 452-3).

It has to be assumed, in the absence of any evidence, that the north limit of the monks' cemetery was the dorter, if we accept Hope's postulated position for that building (below, Dorter, p 24). The area east of the little cloister was the 'common orchard' in 1649 (GRO D936 E 1 p 245). East of the cemetery must have been gardens and cultivated areas. There is at least 1.5m of topsoil here (45, 46).

The infirmary's lodging

The building known as 'Dulverton House' began as a stone L-shaped structure; the roof includes a stone arch and an arch-braced roof (134). This impressive medieval building is assumed to be the infirmary's lodging (Welander 1991, 113). Somewhere in the general area of the infirmary was the chapel of St Bridget, described as a cell for infirm monks (ibid.); this is usually assumed to have been the chancel of the infirmary building, or it might originally have been located in the infirmary's lodging. According to the Chronicle of Gregory of Caerwent, the chapel of St Brigid was dedicated by Bishop Eugenius of Ardmore in 1184 (Hare 1993, 42-4).

Water courses and drinking supplies

Most monasteries from the 12th century onwards had two water supplies, one for drinking and washing, one for flushing drains and driving mills.²⁶ At Gloucester the Fulbrook stream was diverted through the abbey precinct in the early 12th century (Hart, i, 78). The Fulbrook, by the time it reached the abbey, had skirted the city walls and passed through occupied areas; its water can only have been used for flushing, and for the mill. The Fulbrook flowed in a series of stone-built channels, some of which have been seen (6). St John Hope reckoned that the watercourses were 'fairly accurately determined' (Hope 1897, 130), but he does not say how. Fig 8 gives the watercourse according to Hope, and adds the few that have been found since the 19th century (7). One culvert flowed under no 7 Millers Green (122). In the 1660s there was a water-conduit on the site of 1-2 Millers Green (170). A stone tank in the cloister garth (Heighway 2000) was possibly a 12th-13th century flushing system for the abbots' and guests' accommodation in the west range. 'Water conduits' at the Bishop's Palace (the abbot's lodging in the north of the precinct) were repaired 1604-1607 (Welander 1991, 351), but by the 18th century the water channels had simply become a nuisance; in 1761 it was declared that the stream 'is offensive to the inhabitants within the precincts' and it was ordered that it be cleansed 'and a floodgate or wall erected at the place where the stream had been diverted'; so cutting off the stream of water first established so many centuries before (Welander 1991, 423).

The abbey's drinking water would have come from wells; there is one in the cloister garth even today, whose origin may be medieval. The abbey probably received its first supply of piped drinking water in the early 13th century, when Helias of Hereford, as sacrist of Gloucester abbey (1222-37), constructed a 'conduit of living water' (Hart, i, 28). A system of piped drinking water, bringing water from the spring on Robinswood Hill, was still in use in the 17th century (Welander 1991, 352; Eward 1985, 25). This piped water supplied the 14th-century lavatorium in the north cloister walk, and probably a pre-existing version also with a multi-foil basin, the remains of which were found, according to Hope (1897, 129) in the cloister garth, c. 1890.

When drains were laid c. 1855 a length of the piping was laid within the Fulbrook culvert,²⁷ and lengths of the culvert are known to have been repaired in brick (47).

The 14th-century abbot's lodging

The abbot's lodging to the north of the precinct area (156) was begun by John Wigmore, abbot 1316-1329, and further building was done by his successors. References to this building are easily confused with another abbot's lodging, to the west of the city at a place called the 'Vineyard'. There is a detailed 16th-century description of the Gloucester abbot's lodging.²⁸ The medieval buildings were mostly demolished in 1856, but a survey made at the time was traced by Waller and published by St John Hope (1897, 124 and plate iii). The building was rebuilt in 1862 (146).

It is possible that the 19th-century cellars or foundations retain fabric of the medieval building. The chapel (now an office) on the north side appears to be on the same site as one of the medieval chapels, and probably incorporates some of its fabric, although none is visible today. A watching brief during the construction of a new office recorded the foundations of a chimney of the medieval building (36).

26 G Coppack, *Abbeys and Priories*, 1990, 81-99; Hope 1897, 128-9

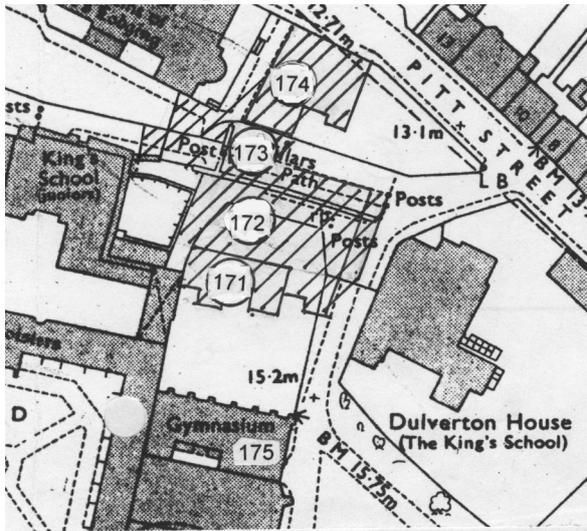
27 Plan of the drainage in GCL date c. 1890.

28 Published by Dugdale (1849). There is a translation in Stevenson *Calendar* (1893), 19-26.

4: POST-MEDIEVAL

Buildings

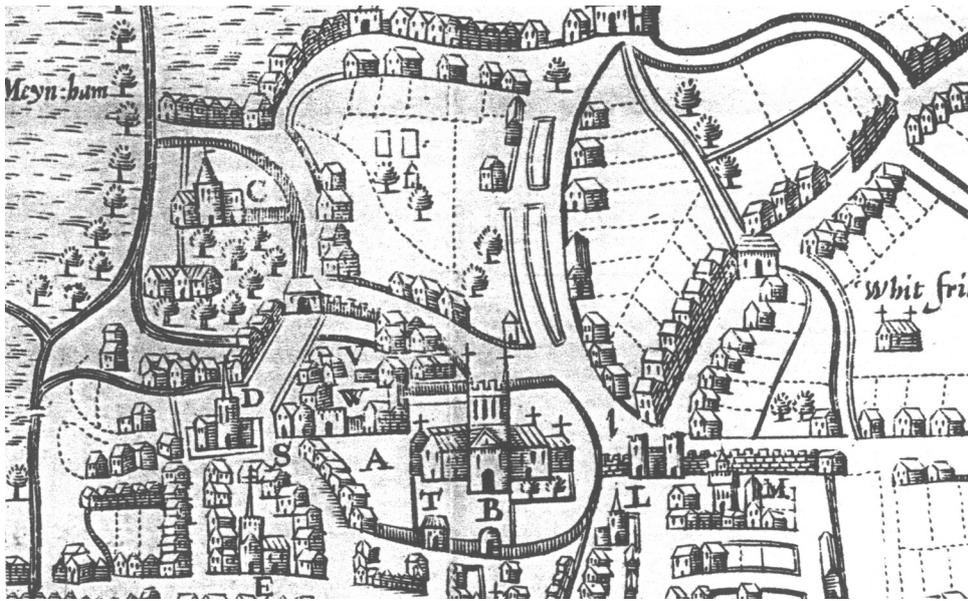
The most important remains of the post-medieval period in the close are enshrined in the buildings: in the post-medieval fittings and modifications to the cathedral church and claustral buildings, and in the dwelling houses of the close. Important sources for these buildings are Causton's map of 1843 and the Board of Health map (1851). The latter gives more detail, being published at a scale of about 1:480, but is in consequence hard to reproduce and only Causton has been illustrated here (Fig 9). The post-medieval buildings are nearly all listed or scheduled (Fig 2). Many of the buildings in the close are medieval, but were adapted after the Dissolution to new uses (VCH iv, 286). The abbots' lodging (156) was assigned to the bishop, the buildings west of the cathedral became the Deanery (123, 124, 125, 16, 19), and other buildings were assigned to the prebendaries, canons and other cathedral staff. Other buildings were adapted, or newly constructed, for leasing to tenants. The dormitory and refectory (162)



were demolished. By the mid 17th century the infirmary had been part demolished but part adapted into an extensive range of dwellings known as 'Babylon'; these can be mapped as they were in the 19th century, just before they were taken down (171-173). These buildings were, at least in their final form, post-medieval, but details of medieval buildings would have been incorporated in them. Their foundations survive in the area of the infirmary, at about 30 cm below the present ground surface. The west range of the cloister (an east range of Church House), though on medieval foundations, seems to have been a post-medieval building (185) and was demolished in the 18th century. Other buildings were newly constructed in the 17th or 18th century, but have since been demolished:

these include the organists house (174), 5 College Green (177), demolished in 1891 to widen College Street, and a building on the north side of Millers Green (165; see Fig 9.3). However, most of the houses built in the centuries after the Dissolution are still standing today. These include Kings School House (131), Wardle House (130), houses east and south of the lay cemetery (17-20 College Green: 126-129); and 4 College Green (105), followed by 1-3 College Green (102-4). 6 and 7 Millers Green were built in the 17th century; no 7 (c. 1680) originally had Dutch gables facing College Green, but was redesigned in the 19th century (122). The splendid no 9 College Green is not late 17th century, as is sometimes said, but was built 1707 (112). The mid 18th-century was a period of particular investment in housing: at this time the west side of the precinct was built up (nos 10-13 College Green: 113-117); no 12 College Green was actually built with an assembly hall for fashionable gatherings (115). The 18th century also saw major alterations to the Bishops Palace, including a classical portico (156); these were however swept away with the rebuilding of the palace in 1862 (146). In the 19th century many buildings were again refurbished, and one new building, the Kings schoolroom, now a gymnasium, was constructed (175).

Alterations to the Cathedral church and claustral buildings in the post-medieval period are dealt with in Eward 1985 (up to the early 18th century), and in VCH iv, 283-6. They are also dealt with under 'repair history' below, and under the descriptions of the cathedral building.



1 Speed, 1610

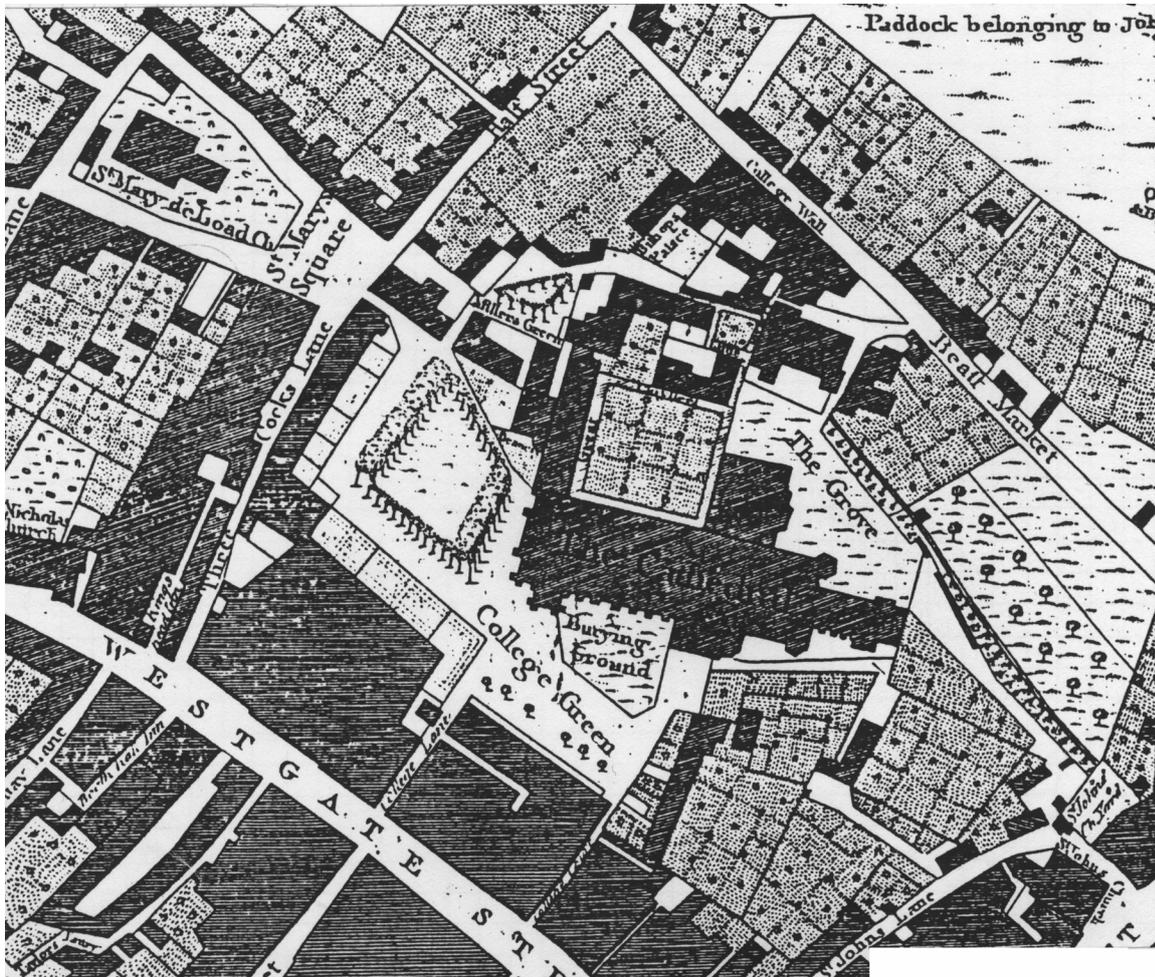
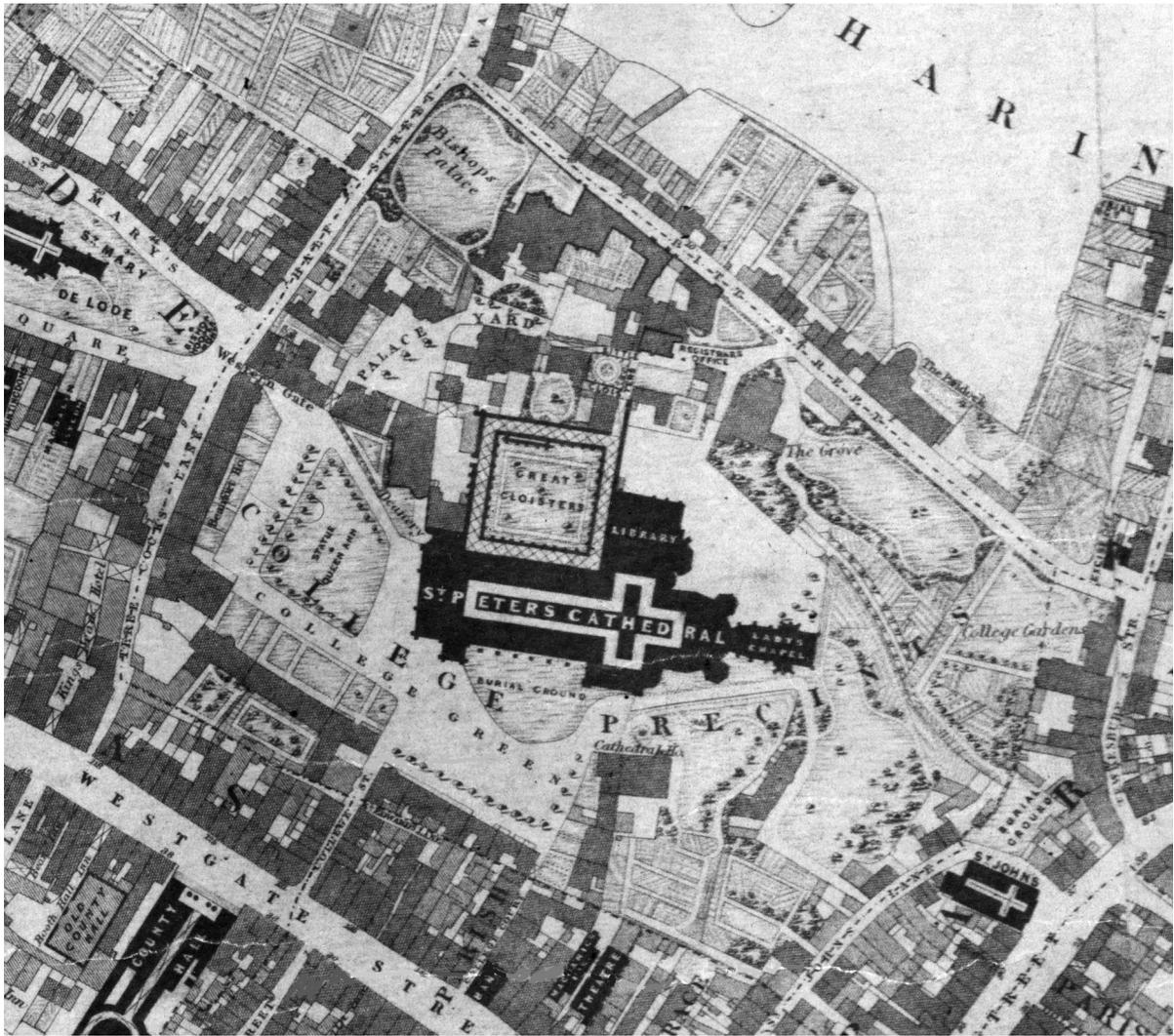
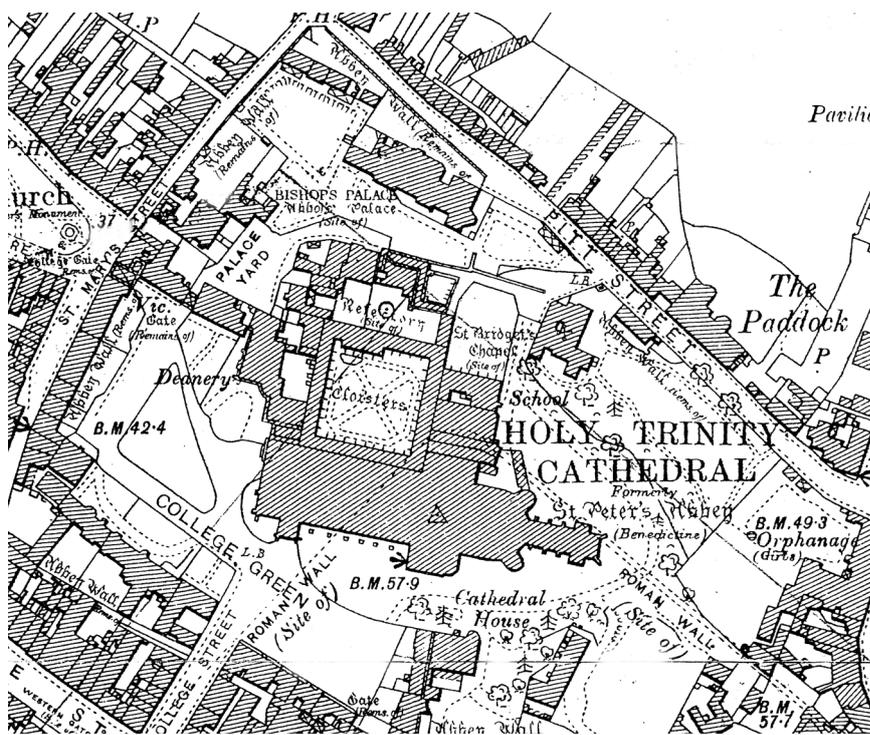


FIG 9 The post-medieval precinct: maps by Speed (1610) and Hall and Pinnell (1796)



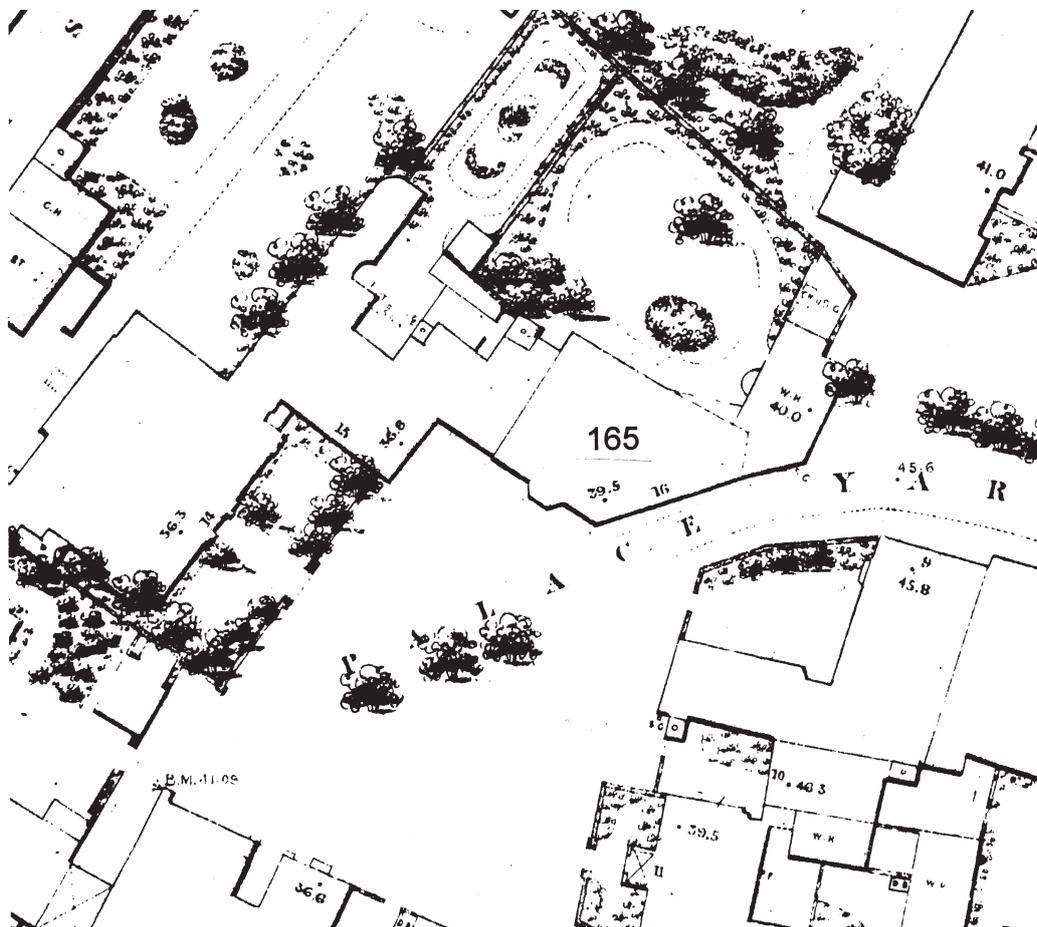
3. Causton, 1843



4. Ordnance Survey, 1902

Figure 9: Causton 1843 and Ordnance Survey 1902

More minor features of the post-medieval period such as the pump in Miller's Green (**180**) could be established in quantity with a thorough trawl of the documentary evidence. Other features might be difficult to locate precisely by documents; a brick well, for instance, was found in the south churchyard in 1989 (**68**) and there must be many more of these in different parts of the precinct. It was the late 19th century before a water supply was properly established at the Cathedral, and various means of collecting water may have been used. A large brick water cistern in Millers Green may be only one of several (**179**). Other post-medieval features are brick-lined burials – which cannot be precisely predicted, apart from those under (illegible) ledger stones just south of the church – and brick or stone garden walls and other garden feature, many of which can be seen on 18th- and 19th-century plans (Fig 9.2, 9.3, 9.4). There may be scope for garden archaeology: a number of formal gardens are shown on the Board of Health map (see e.g. the garden of 2 Millers Green, inset illustration). There is an 18th-century pavilion in the garden of King's School (**145**). The Board of Health map shows other 'summer houses'. Another feature which may have left little archaeological trace was the 18th-century rope walk (**178**); this occupied a long strip of ground to the east of the Grove (Fig 9.2). Twentieth-century monuments include the Gloucester war memorial in the west part of College Green, erected in 1922. The Bishop's house, known as Bishops court, was built in 1954 (**182**). It is not listed.



Buildings on the north side of Millers Green (Board of Health map 1851)

V THE DOCUMENTS

1: MEDIEVAL SOURCES

by Michael Hare

No medieval building accounts for the abbey or its claustral buildings have survived.

The principal documentary source for the building history of the abbey is the *Historia*, composed c. 1400 by or for Abbot Walter Frocester (Hart i, 3-125); it should not be overlooked that a little information relevant to the building history is to be found in the index of properties which follows the main text of the *Historia*. Another Gloucester Abbey chronicle, composed in the 13th century by Gregory of Caerwent, survives in the form of excerpts made in the 16th century by Laurence Nowell and provides a few additional dates.²⁹ The early Norman building dates are confirmed by the Chronicle of John ('Florence') of Worcester, written in the 1120s.³⁰

Other sources provide occasional supplementary evidence, particularly for the 12th century. The Peterborough Chronicle (the 'E' text of the *Anglo-Saxon Chronicle*) provides detailed information about the fire of 1122.³¹ The 'G' (Gloucester) continuator of John of Worcester records under 1127 the burial of Roger de Berkeley III 'before the door of the church' (*ante fores ecclesie*),³² perhaps providing a *terminus ante quem* for at least the lower part of the west end. Giraldus Cambrensis, in his *Life of St Remigius*,³³ gives a detailed account of the fall of one of the western towers while Bishop Roger of Worcester was celebrating mass; this record is presumably to be read in conjunction with the laconic entry for the fall of a tower in Gregory of Caerwent's chronicle under 1164 (Hare 1993, 43).

For the period after c. 1400, the principal source of information is the notes made by Leland ('These notable things following I learned of an ould man, made lately a monke of Gloucester').³⁴ For the late medieval period, the church itself contains some clear indications of date in the form of inscriptions, rebuses and heraldry.

2: POST-MEDIEVAL SOURCES

Precinct properties

The post-medieval history of the properties in the precinct is contained in the many leases issued by the Dean and Chapter. The earliest leases are of the late 16th century. Those relating to the Cathedral precinct are listed in Kirby (1967), 74-81. As Kirby points out (*ibid* p 41) these leases are most easily consulted by reference to the abbey lease books. However the latter have no modern index and the contemporary indexes are most easily accessed by the tenants name, which Kirby does not give. Fortunately, the names of tenants under properties from the 16th century to the late 18th century are listed by Eward (1985, appendix D, p 312-29; Eward's book extends to 1714, but her lists of leases extends beyond this). Leases for the late 18th and 19th centuries are listed in Kirby (1967 74-81); these continue the lists given by Eward but are not always confidently identified by property.

Most of the leases give measurements, and enable the layout of the buildings to be reconstructed. In some cases, the 17th-century leases give dimensions and describe the building as old and dilapidated: this can be a clue to the survival of a medieval building whose layout is otherwise unknown. In some cases this 17th-century information has been used in the absence of other evidence to map medieval buildings: see Fig 8.

The history of the repairs to properties in the precinct is contained in most of the sources mentioned

29 London, British Library, MS. Cotton Vespasian A.v., fos. 195r-203v;

30 P McGurk 1998 (ed.) *The Chronicle of John of Worcester* iii, Oxford 1998.

31 'The borough at Gloucester was burnt down. While the monks were singing their mass, and the deacon had begun the gospel *Preteriens Jesus*, the fire reached the upper part of the tower and all the monastery was burnt and all the treasures that were there except a few books and three mass vestments: that was on 8 March' D Whitelock et al (ed.) *The Anglo-Saxon Chronicle: a revised translation* (2nd ed., London, 1965).

32 McGurk (ed), *John of Worcester*, 174.

33 J S Brewer *et alii* (ed.) 1861-91, *Giraldi Cambrensis Opera*, 8 vols (Rolls Series), vii, 64-5.

34 L Toulmin Smith (ed.) *Itinerary of John Leland*, 5 vols, London, 1907-10.

for the history of the cathedral. Eward 1985 contains much material for the 17th and 18th centuries. The Chapter Act books and accounts contain some reports of repairs and maintenance. The repairs done under Waller's supervision were often done by the firm of Fulljames and Waller, and there is material on precinct houses in Waller papers at GRO (D2593). Material covering precinct properties in the last 50 years or so is currently being catalogued by the Cathedral Librarian.

A valuable source is the Commonwealth survey of 1649, when all the Chapter property was secularised and leased out. The survey, known as 'Oliver's Survey', gives a complete picture at one point in time of all the buildings within the Cathedral precinct, including buildings never formerly rented out such as the Deanery. 'Oliver's Survey' survives only in an 18th-century copy (GRO D936/E/1). Though the survey was originally (presumably) accompanied by a map, this too has been lost. There is however a map of the precinct made c. 1761 (Eward 1985, p 312). This shows the extant buildings at that date (similar to those shown on Hall and Pinnell's map of the city: see Fig 9.2). The map carries the names of 1761 tenants and enables the researcher to locate properties via the leases so that individual properties can be traced forward and back in time from 1761.

There is considerable scope for further research into these surveys and leases. A first step would be to extend Miss Eward's Appendix D to provide a continuous list of tenants' names down to at least the late 19th century.

The church and claustral buildings

To obtain information about past repairs for a particular part of the cathedral is a laborious process. The sources as known at present are summarised by chronological period.

The 17th century

Cathedral accounts do not survive before 1609, and there is little information in Chapter Act books which begin in 1616³⁵ (Welander 1991, 352, 646). In 1617 the church fabric was 'ruinous and in great decay in many places' (Welander 1991, 352). Dean Laud proposed the initiation of a repair program, and instructed the treasurer to allocate an annual sum of £60 (Welander 1991, 356). The 17th-century accounts, which are in Gloucestershire Record Office, detail work in the 1630s (GRO D936 A1/ 1-2) including repairs to the *lavatorium*, to windows, and to the building of the organ loft (Welander 1991, 360). The cathedral escaped major damage in the Civil War: a proposal to demolish it was fortunately averted, and in 1656 the church and claustral buildings were made over to the mayor and burgesses of the town. The Chapter House became a public library. The Dean and Chapter were reinstated in 1660, and initiated repairs which are documented in the cathedral accounts (Welander 1991, 370; GRO D936 A1/1-4, A22, A23, A24, A25 and A26).³⁶

The 18th century

Eighteenth-century repairs and refurbishments are outlined by Canon Welander (Welander 1991 402-27). The Chapter Act books apparently report the most important works such as the refurbishment of the choir, the repaving of the nave and other parts of the church, Kent's new choir screen of 1741, and the renewing of the west end parapet. There is some detail of 18th-century repairs in the cathedral treasurers' accounts (GRO D936 A1/5-9). Late-18th-century financial records are included in the papers of Gloucester cathedral in the Record Office at Worcester (see GRO EL 544 and EL292 for lists; these have not been consulted for this Assessment but have been searched by Arthur Price: see below, section VII, Stone).

The 19th century

Records of maintenance and repairs in the first half of the 19th century are contained in summary in cathedral accounts (GRO D936 A1/9-A1/11, with further details in financial papers in documents at Worcester Record Office: WRO 829). The run of cathedral accounts continues throughout the century (GRO D936 A1/12-A1/14). These accounts detail sums paid to individual contractors (e.g. '1851: for building the new School House in the Grove: Mr Wm Wingate the Contractor £1059..': D936 A1/12 p 116). The full details of repairs must have been in the original accounts submitted by the contractor. The second half of the 19th century, being the period when F S Waller was in charge of building and repairs,

35 The first Chapter Act Book is currently being edited for publication as BGAS record volume by Suzanne Eward.

36 The account volumes are now (2003) in the cathedral library, renumbered GCL TR1 onwards.

is well-documented by the architect. He kept log-books of his work which cover the years 1853-1866 (GCL MS 53) and 1872-1885 (GCL MS 54). The gap from 1866-72 was the period when Gilbert Scott was in charge: there are no detailed records in the cathedral archives of this period, although there are plentiful newspaper and other reports (e.g. Tinling 1871, Anon 1875, Anon 1866). The bulk of the work was internal, the choir was restored, a new reredos made, the chapel of St Philip refurbished; the south porch was also restored (see below). The post 1885 work is not covered by any architects' reports but is detailed in various appeal documents (Spence 1892, Spence 1894).

The twentieth century

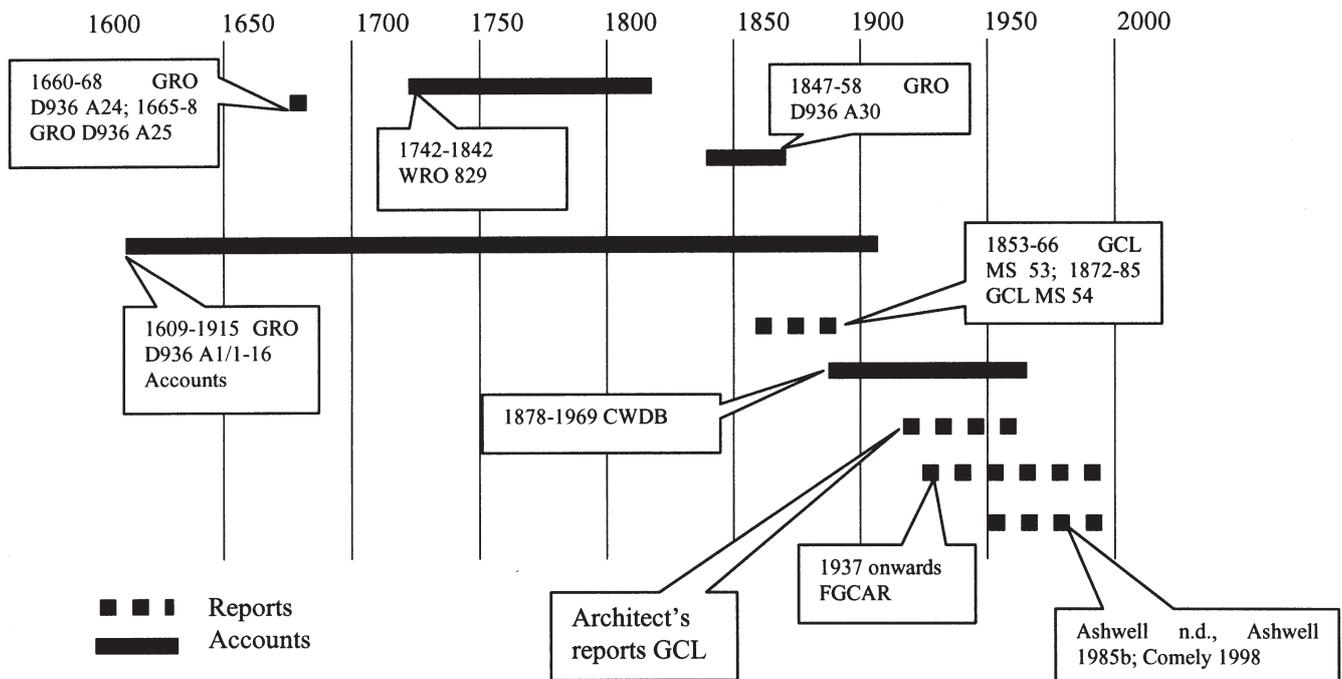
The early twentieth century is not well covered by reports and documents, though the second Waller published his work on the restoration of the tower (Waller F W 1911a: 1911b). Thereafter there is a series of architects' reports; these have only just (in 1999) been located and have not been searched for this report. A useful detailed source is the 'Clerk of Works Day Books': these 15 volumes in the cathedral library span the years 1878-1969 and record the names, tasks, and pay of the cathedral maintenance staff. A contents list is in preparation.

The records of work improve greatly with Bernard Ashwell. His *Chronicle of Repairs* (Ashwell n.d.) covers the years 1953-1971 and includes much material of historical significance. His *Quinquennial* (Ashwell 1985b) is also valuable. The period 1985-1998 is covered in the recent quinquennial (Comely 1998, especially 13-18).

In 1998 many records were transferred from the architects' office to the cathedral. These records are being catalogued at the time of writing (1999) by the cathedral librarian.

Researching repairs

Any research into repair history for a specific area of the Cathedral church begins with the index to Welander 1991 which will usually give the date of repairs to the area in question. This date then locates the relevant volume of the Clerk of Works Books, which will give fuller details. The date can also be used to locate records such as architects' reports and fabric accounts. The following diagram may help this process:-



Pictorial record

The collection of prints and drawings of Gloucester cathedral and the precinct is too large to be dealt with in full here. There are collections of prints and photographs in the following locations:

- 1 Gloucester City Library, local history room, - listed in four folders arranged by area of the building
- 2 Various items in Gloucester Cathedral Library at present being catalogued:
 - Miscellaneous photographs
 - Glass negative slides, about 200
 - Colour slides
 - Prints of photographs by the Courtauld Institute of architectural detail
- 3 Various prints and paintings are in the Dean and Chapters possession, in various precinct buildings, and as part of the cathedral's Inventory, a list of these is being compiled. Many are reproduced in Welander 1991.
- 4 National Monuments Record, Swindon – the collections of photographs in the 'red boxes' comprises 16 boxes for the Cathedral, and one box for the precincts. There is no index for these, but a superficial search indicates that many are duplicates of records available locally, either in GRO or in the Gloucester City Library.
- 5 Gloucestershire Record Office: a collection of glass slides, photographs, and prints. These can be accessed via the GRO subject index under 'Gloucester Cathedral'.
- 6 Numerous items in the Library of the Society of Antiquaries, London: most of the 30 or so items in the Antiquaries' prints and drawings index are also duplicated locally. It should be noted, however, that the Antiquaries has the original drawings of Carter's survey (1806), and that these contain material which was not included in the published drawings.
- 7 British Library: paintings of the great east window by Charles Winstone, 1860s. Add MS 33846-33849. This reference was provided by Sarah Brown: there is likely to be other material in the British Library which has not been searched.

Clerk of Works Records at the Present Day

Photographs of repairs

Comprehensive photographic records of stone repairs before and after replacement are kept by the Clerk of Works: these date back to about 1994. For the period *c.* 1970 onwards there are also photographs, less consistently taken, and unidentified until rescued by the present Clerk of Works, Alan Norton. These photographs are kept in albums in the Clerk of Works office.

Cutting lists

For the past four or five years detailed records have been kept of all stone cut. These records are kept in loose-leaf binders in the Clerk of Works office.

Stone Samples

Selected stone samples are kept of stone displaced by repairs. The samples are numbered and the numbers noted on elevation drawings.

Setting out drawings

Detailed setting-out drawings are made on large sheets of hardboard which are stored in the masons' yard. Because of their size, these are not stored long-term but are re-used. Some have been recorded photographically (by Linda Lane photography), but with limited success. Selections of masons' templates made from these setting-out drawings are kept and converted to line drawings at scale 1/2.

Worked stone fragments

Carved stone which is surplus to requirement is either discarded or (by agreement with the FAC) disposed of by sale. Significant fragments are numbered and kept: the decision as to which pieces to keep is arrived at by discussion with the Architect, Clerk of works, and Archaeologist. Stones are numbered with red acrylic paint and a catalogue is maintained. This catalogue also includes worked stone inherited from past repair programmes; and includes worked stone which has been recorded but discarded. (It

does not as yet include worked stone presently in the tribune gallery, some of which is of considerable interest). Worked stone retained is kept at present in a lapidarium in the cathedral crypt.

Archaeological records

All archaeological finds are, of course, in the ownership of the Dean and Chapter. Every few years finds are deposited in Gloucester Museum by agreement with the Dean and Chapter. Ownership is then vested in the museum. Some items have been retained by the Dean and Chapter and are kept in the vergers' strong-room.

A 15th-century pewter spoon **65**

A medieval melting pot **31**

A stone knight's head **30**

The archaeological archive kept by the Consultant Archaeologist comprises the following:-

- Folder of large plans and drawings, with catalogue
- Worked stone records, comprising a catalogue and photographs (3 volumes)
- Colour slides and photographs/negatives, with catalogue (Microsoft Access)
- Archaeological reports, 1992 onwards (4 volumes; GCAR i – iv). (Copies of these are deposited annually in the Cathedral Library: however the original volumes contain data added since the Library deposition).
- Catalogue of floor tile designs, with code numbers
- Catalogue of masons' marks (in progress, 2000)

VI THE BUILDINGS

1: THE CHURCH

The crypt

The crypt is the earliest part of Serlo's work. Its plan of ambulatory and five radiating chapels was originally reflected in that of the choir above, and then in the galleries above that. Though the ground level in the crypt central area has been infilled, the floor here was originally about 3ft (0.9m) below the level of the crypt ambulatory, a feature which has in the past been ascribed to the fact that the central chamber of the crypt was Anglo-Saxon work.³⁷ This theory has not met with general acceptance. All the earliest architectural detail, including the warrior's head with curling moustaches, fits into the late 11th century (Wilson 1985, 58), and as Waller (1876, 150) pointed out, the crypt floor levels exactly mirror the floor levels in the storey above, and are clearly part of the same design.

The plan of the Romanesque crypt was originally that of an apsidal presbytery, with ambulatory, north west and south-west chapels, and three radiating chapels opening out of the east apse of the ambulatory. Built *c.* 1089, the crypt suffered subsidence and had to be heavily strengthened, probably in the early 12th century (Waller 1876; Welander 1991, illus p. 31). A further strengthening particularly on the south side and below the great east window took place in the 14th century when the choir above was modified (Waller 1876).

The 12th-century crypt design had twin entrances opening from the north and south transepts. That in the south transept is still in use today; that on the north was superseded in the 13th century when a new external entrance was formed from the north-west chapel of the crypt, emerging just east of the east slype. It was presumably then that the original entrance was blocked up.

The axial eastern chapel received a new east window and remodelled side windows in the 13th century (Welander 1991, 108).

In the 18th century the crypt had been used as an ossuary; a print (Britton 1829, plate xiii; Welander 1991, 456) shows heaps of debris and bones. The debris was cleared in 1851 and the bones placed in the south-west crypt chapel (Welander 1991, 36). Not long afterwards, in the few years before 1856, the bones were moved out and reburied north of the lady chapel in the backfill of the crypt drain (**168**); in addition much soil was removed; and the windows (which had been blocked to prevent water coming in) unblocked and glazed, 'in two instances with old painted glass which from time to time has been found in the Cathedral' (Anon 1856, 603). In 1864, when excavations were done in the crypt for installing heating for the choir, a body was uncovered, with no coffin but wearing boots (**161**). The absence of a coffin suggests a medieval burial; an indication that other such may exist.

The works prior to 1856 lowered the ground level in the crypt to 'original ground level', except, that is, in the central chamber where it was judged better to leave the accumulation (about 2ft above 12th-century floor level) intact (Anon 1856, 603). Shortly before 1855, however, small excavations had been made around the piers down to the level of the pier base of the pier base, exposing the water table. These pits are still open, though re-excavated at various times, and shuttered in 1991. Observations of various works in the crypt (**53**) show that in some parts of the central area the upper 30-40 cms of fill was 18th to 19th century; a mortar level at about 30cm depth represents the building level of the 14th-century strengthening (**56**). A 12th-century floor level has never been seen, and it may be that there was never more than an earth floor.

In 1941 there was a proposal to lower the central-space floor of the crypt to the level of the 12th century pier-bases. In 1942 there were extensive excavations round the bases of some of the columns, and also excavations against the walls of the crypt to ascertain the nature of the foundations (CWB 11). A record made at the time (GCAD 7/29), though not indicating exactly where trenches were dug, makes it clear that excavation took place against every wall of the central space. The walls were on 'rough stone' foundations and went down to between 6 ins and 1ft 8ins below the base of the columns (this may have been the base of the foundation but perhaps it was the depth of the plinths: it is not clear which was being measured). The underside of the base of the crypt pier foundations in the central area were at 40.7 to 40.8 ft above OD; the base level of the columns was 41.9 ft above OD (GCAD 7/29).

37 e.g. Spence-Jones 1913; a two-phase crypt with the earlier part being mid 11th century was also suggested by E Fernie 1983 *The Architecture of the Anglo-Saxons* (London 1983), 160

Subsequently repairs to the crypt piers took place: steel columns were inserted at the centre of the columns, starting with the north-east column, and concrete platforms inserted under the piers (GCAD 7/5; CWB 11 various dates in 1941 and 1949). The four eastern crypt piers were repaired in this way (Ashwell 1975).

Given the extent of excavation at various times, particularly in the 1940s, it is surprising that any original deposits survive in the central area. Nevertheless, undisturbed natural clay was seen at only 30cm below the ground surface in the centre of the central area against the east wall (53) and excavations in 1991 were still able to cut into surviving 14th-century levels (56). The crypt therefore still has buried archaeological potential, though much cut about, and there is scope for further detailed survey of the various strengthening procedures from the 12th century onwards.

An appraisal of the crypt was done in 1997 (GCAR ii, 97/D) when refurbishment was being considered.

Nave west front

The west front, the first two western bays of the south front, and the south porch, were said to have been built by Abbot Morwent (1421-37) (Hearne 1744, 77). The original Romanesque west end is assumed to have had an arcaded facade with twin turrets and to have extended one further bay to the west (Welander 1991, 71-3). This last is by no means certain (see Welander 1991, 70). The west façade does seem to be 15th-century work, except for the extreme northern bay and its junction with the west front of the abbot's chapel, where the coursing is very different from the rest of the west front.

In the south aisle roof and in the south porch roof space, the junction between 15th and 12th-century work can be clearly seen. The rebuilding of the west end was a two-phase process, for in the western two bays of the south aisle can be seen the remains of an earlier vaulting arrangement (GCAR i, 92/E and GCAR ii, 96/B; Bagshaw, Heighway and Price forthcoming).

The 15th-century western façade presumably had statues in the niches of the buttresses which it is assumed vanished at the Reformation. The balustrade at the foot of the great west window was by the early 19th century designed in quatrefoils surmounted by crockets (illustration in Welander 1991, 393; plate 21 opp p 388; p 441). It was altered in 1848 (Welander 1991, 451); Waller (1855, 33) thought this alteration 'injudicious'. The quatrefoils with shields above the main west doorway were replaced in the 19th century; one of the replaced shields is in the stone store (stone no 113). The original of the seated stone figure above the apex of the window is probably also in the store (no 132); also the 'waves' from the parapet (nos 94, 144, 78) which were replaced in 1987-8 along with the stone cross on the apex.

There have been three major phases of repair to the west front, one in 1848, another beginning in 1905, and a third in 1995 (GCAR ii, 95/E). There is now very little worked stone which is not a relatively modern replacement: an exception is the 15th-century sculpture in the shape of a crouched cowled figure in the north-west angle of the northern nave buttress.

Nave south clerestory

The earliest fabric is the range of Romanesque pilaster buttresses between the clerestorey windows. In the south aisle roof space can be seen the 12th-century arcades of the nave triforium, with doorways giving onto the centre of each bay (there is no proper triforium passage). The upper part of the nave walls (the first three bays east of the south porch) once leant outwards at the top and were corrected in the 14th century when the windows were modified (Bagshaw 2002).

South front

A major rebuilding of the south aisle wall took place in 1318, new windows and buttresses being decorated with ballflower work (Morris 1985). The lower part of the wall may have been retained: wall is of worn block-work, much burnt and patched, and carrying 12th-century masons' marks. This phase of walling looks 12th century but if so, it shows no signs of strip-buttresses such as appear at clerestorey level.

All six buttresses were designed to carry figures, standing on a plinth carrying the same ballflower as the windows and surmounted by a canopy with castellated decoration. Six statues still existed in 1851; at present there are only three surviving. Jerry Sampson considers that the statues may have been early sixteenth century (Sampson 1997); their insertion may have been part of an aggrandizing effort on the part of the abbey at a time of low esteem for monastic establishments (Luxford 2002). The two eastern

buttresses were repaired in the 19th century, but most of the others are in their natural, and weathered, state. The early 14th-century windows were extensively repaired to take glass in the second half of the 19th century and much of the window tracery is in 19th-century Bath stone (GCAR ii, 98/F; Heighway 2002).

The south porch

A full account of the south porch and its restoration in 1992 is forthcoming (Bagshaw, Heighway and Price). The porch is two storey, with a 15th-century timber roof. The lower storey contains the entrance; on the outer south face are niches which originally contained medieval figures. These had gone by the 17th century; new figures by Redfern were placed in all the niches in 1870 (Welander 1991, 475).

A straight-joint can be seen 500mm east of the porch wall, on the south wall of the south aisle.³⁸ This may be the scar of an earlier two-storey porch.

The porch was repaired in the early 1850s and extensively in the 1860s. Extensive repairs in Lepine stone were carried out in 1992.

The nave interior

The architecture

The first two or three bays of the nave were probably complete by the dedication of the church in 1100 (Welander 1991, 50) and the elaborate decoration on the most westerly surviving north aisle capitals is thought to date to *c.* 1130 (ibid, 55). The nave had drum columns, a triforium, apparently without passages, and a clerestory which was subsequently destroyed by later alterations. The appearance of the Romanesque clerestory has been reconstructed by Wilson (illustrated in Welander 1991, 66). The clerestory was heightened when the 13th-century vault was put in. The present clerestory windows are 14th century, but there were 13th-century windows before them; the present clerestory design shows elements of both 13th and 14th century details, probably reused from former windows.

The nave vault which survives today was completed in 1242. The first, early 12th-century, roof is thought to have been timber, although one authority suggests that the 13th-century vault replaced a 12th-century stone vault (Thurlby 1985, 47). The north aisle vault is 12th century but replaced an earlier design, or intended design, of stone quadrants springing from above the aisle windows and rising to immediately above the triforium rear enclosing arches (Thurlby 1985, 47; Wilson illustration in Welander 1991, 49). The south aisle vault was rebuilt *c.* 1318 (Welander 1991, 133).

Since the 12th-century building the nave has shown signs of settlement. Some of the south arcade piers lean outwards, particularly the fifth from the east; this effect is even more evident on the outside at clerestory level, where the 12th-century strip buttresses lean out but the intervening nave walls have been battered back to regain verticality. This correction of the south nave lean can be attributed to a time at or before the construction of the 1242 vault, since the vault itself shows no sign of movement. The lean has long been attributed to the position of the Roman city ditch, but the Roman wall passes under the second pier: the fifth piers (where the lean is most marked) was probably outside the ditch. Moreover there has been subsidence in the crypt also on the south side which was certainly not caused by the Roman ditch.

The nave floor

The present nave floor is of flagstones about 50-80mm thick. Some of the flagstones are re-used grave-covers or ledger-stones (65).

All the floors from the 18th century covered the Norman pier bases and plinths. The original plinths were square, at least at the western end of the nave (65). From the 17th to 1856, all the nave piers are shown with octagonal plinths (1644 drawing by Hollar: Welander 1991, 161; Willis 1727); these plinths may have been added in the 17th century. Waller remarked on the false 'bases' in 1855. He recommended renewal of the floor, which had been relaid in 1740 (Waller 1855, 33; Haines and Waller 1884, 76). The octagonal plinths were replaced in 1856 with square ones on which were set moulded bases (Anon 1856, 603, 623). It is possible that false bases and plinths were also added to the engaged columns in the side aisles, since their level today is similar to those in the nave. The bases of the two most easterly columns,

³⁸ see above, south aisle. This straight-joint is not the junction between the 12th century work and the 15th century west end, as suggested by one commentator (Thompson 1977).

the medieval screen arrangements before they were swept away (Willis 1729). There is no sign of the western fence-screen postulated by Hope: instead Willis shows two small bases about 5 ft west of the main screen (about 10 ft east of Hope's postulated fence screen). Two east-west walls in just the position shown by Willis were discovered in 1992 (65) (Fig 8). These wall foundations re-used fragments of 12th- and 13th-century stone and rest on a medieval floor level; they may represent a late medieval or early post medieval altar base. Therefore if Hope's fence screen existed, it had been modified by 1727. The Hollar drawing of 1644 (Welander 1991, 161) shows no nave altar or encumbrance of any kind west of the Wigmore screen.

By 1807 (Carter and Basire 1807) the side chapels had been removed as well as the central altar, and the central part of the screen replaced by the Kent screen; however the north and south screen walls in the aisles then survived. The screens are illustrated incidentally in Ross's paintings of the Machen and Blackleach monuments (Ross 1806). The picture of the latter shows the stone screen to the east with crenellated parapet: the stone screen in the south aisle is also visible in the Blackleach picture. These screen walls were finally demolished in 1819, at the time of the construction of the new stone screen. The foundations of the medieval *pulpitum* were found in 1987 (62), in the south aisle, running north-south just west of the present screen and about 20 cms under the steps up to the south transept. Another wall of the *pulpitum* was found in 1992 (65). The walls found were foundations only, and being under the steps, were above the present floor level of the nave.

The south transept

The south transept is in basic plan part of Serlo's work, though extensive use of chevron indicates modification of Serlo's work in the early 12th century (Wilson 1985, 72). The transept was rebuilt in 1331-6. A window *c.* 11m high was introduced, and a very great deal of the previous Romanesque stonework was re-used, with some new stone made in chevron to match (Ashwell 1985a). The 12th-century chapel which opens off the east side of the transept was also adapted, and its windows enlarged, in the 14th century (Welander 1991, 150-160).

The south transept also received added buttresses thought by Waller (1911) to be for the support of the tower, *c.* 1450. One of these crossed the entrance to St Andrew's chapel. In 1796 the position of this buttress was represented by a solid wall (Bonner 1796, Storer 181, plans). The wall was removed by Waller, who must have discovered the medieval buttress encased in it (Welander 1991, 458; Comely 1998, 174).

When the south transept was restored in 1867, shot-holes were found in the western turret, and bullets found in mortar between the stones.³⁹

The north transept

The basic plan is Romanesque; the wall passages in the north wall, now blocked off and made redundant by the 14th-century window, are important clues to previous Romanesque arrangements (Welander 1991, 42-3). Alterations of 1368-74 included the north and side windows and the decorated vault (Welander 1991, 166).

The 13th-century screen against the north transept wall, now the entrance to the Treasury, was thought by Bernard Ashwell to be from an entrance to the 13th-century eastern lady chapel before the 14th-century refurbishing of the choir⁴⁰ (pers comm B Ashwell).

The external elevation of the transept shows the Romanesque gable (probably rebuilt from Romanesque elements in the 14th century) and turrets. The north-west turret has a door opening into space, for no known reason.

The line of the original steep Romanesque roof can be seen in the gable end. An iron tie bar which passed through the springing of the north window was thought in the 19th century to have been part of the 14th-century refurbishment. In the 19th century this bar had snapped due to settlement; the turrets in the 19th century were tied together with iron ties over the north window (Ashwell 1985b, 5/19, 5/20, 5/22; GCAR, ii, 95/D).

39 *The Builder*, June 22, 1867.

40 See also Gladwys Davies, 'The structure in the North Transept', MS 1972, GILib.

The choir

The original form of the choir was apsidal with Romanesque round piers and a surrounding ambulatory. In the 14th century the choir was re-clad with Perpendicular stonework, the east end extended to remove the Norman apse, and the great east window was built. Access round the east end from the galleries was by a bridge incorporating re-used Romanesque material. Drawings done by F. S. Waller (Waller 1890, 4; Welander 1991, 169) show the superimposition of the new design. Even in the 14th-century choir elevations there are signs of the architectural re-use of 12th-century work. Many of the windows re-use Romanesque architectural detail (GCAR iii 99/B). On the north face, the first roof windows to the east have jambs made of 12th-century half-round mouldings (GCAR ii, 93/H).

During alterations to the reredos in 1872 the bases of the original Norman piers of the east end were found as well as recesses beneath the high altar for the safe-keeping of relics (54).

There has been discussion as to whether the Romanesque choir had a stone rib-vault (Wilson 1985, 63) or barrel vault (Thurlby 1995, 45).

Robert Curthose, duke of Normandy, was buried before the high altar in 1134 (Hare 2002). The 14th-century enhancement is famously attributed to offerings and royal patronage following the burial of Edward II whose shrine was on the north side of the choir. Julian Luxford has emphasised the importance of the positioning of later monuments including those of Abbot Malverne and of Osric (Luxford 2002).

The great east window

It seems to have been Dean Spence (Spence-Jones 1912) who first christened this ‘the Crecy window’. The window was probably executed between 1350 and 1360 (Kerr 1985). Its design is described by Welander (1991, 188-98). The earliest study was Winstone’s, done during restoration in the 1860s (Winstone 1863), when most of the mullions and tracery of the south side of the window and much of the north side was replaced. Various studies followed (Gambier-Parry 1884; Drayton 1915; Nott 1899; Rushforth 1922). The window was taken down in 1940 and stored during the Second World War: some restoration was done on its reinstatement in 1946, although this is not documented. Further minor repairs were carried out in 1976 (Strobl 1998; GCAR iii, 98/G).

In 1998 repairs were again needed, prompted by the fall of stonework from one of the mullions, caused by the bursting of iron saddle bars. An analysis of the stone types and tooling was done (Mychalysin 1998). This was plotted onto a drawing created from a photograph as there is no drawing of the stonework on this elevation. The survey establishes that most of the Victorian repairs were done in Painswick stone on the inside, with a shellier version of the stone used outside. One course of Bath stone had been used for the quatrefoil row just above the entrance to the lady chapel. The medieval stone was of outstanding quality, and some of the individual stones were of gigantic size.

Conservation work on the stained glass has recently been carried out (Strobl 1998; Brown 2001; Selinger 2001).

Ambulatory chapels

The choir ambulatory chapels retain their original Norman plan and vaulting, though all have been adapted to the liturgy of later centuries. The south-east chapel (formerly known as St Philips Chapel or the Chapel of English Saints) was investigated before and during refurbishment and evidence of its former appearance emerged (57). The refurbishment is summarised in Comely 1998, 169.

The tower

The ground plan of the tower is that of the 12th century. The Romanesque tower probably had external decorated blind arcading matching the fragment which still survives at the north-east angle of the presbytery and the north transept (Welander 1991, 42; Wilson 1985, 71). Welander envisages the Romanesque tower as ‘a low massive structure, richly ornamented on all four sides with arcading, pierced by small windows and belfry openings, and surmounted by a low wooden spire’ (Welander 1991, 48). The Romanesque tower also had overhanging circular turrets at each corner. The remains of the two western turrets can be seen in the nave roof space; the base of the north-east turret still survives, converted into a buttress support in the fifteenth century and visible externally. It is characteristic of Romanesque work in the church and claustral buildings that it is burnt red from fire, perhaps from the great fire of 1102 or from that of 1122.⁴¹ The north-east turret is so distinguished.

41 Hart, i, 12; *Anglo-Saxon Chronicle*, ed. D. Whitelock (London 1961), *s.a.* 1122.

The Romanesque foundations and crossing piers were retained in the adaptations of the following centuries. The *Historia* asserts that a major tower was added by Helias the Sacristan in 1222; there is no evidence that this was anything other than a timber spire erected on top of the Romanesque crossing (Welander 1991, 102-3). Subsequently the various spaces of the abbey church were heightened and modernised; the nave vault in 1242, the south transept and vault in 1329-35, the choir vault in 1337-67, and the north transept in 1368-73. Each of the new arches for these spaces pierced the walls of the crossing tower at a higher level than the Romanesque arches which preceded them. Each could have been inserted whilst still leaving the Romanesque tower intact (Comely 1998, 163; Heyman 1994). However, the evidence in the roof spaces just above the choir vault in the crossing ('the star chamber') does not support this; the stone of the internal tower walls just above and around the vaults is not reddened uniformly, indicating surviving Romanesque structure, but only shows an occasional reddened block, suggesting that the Romanesque wall was entirely refaced, or rebuilt, at this level at some time after 1102/1122.

The vault packing above the crossing arches include much reused Romanesque detail, presumably from the crossing arches.

The tower was heightened and refaced in the Perpendicular style *c.* 1450. The floors and roof still retain their 15th-century timbers, with some modern repairs: the belfry floor is recorded by Hewett (1985, 150, Fig. 144).

During repairs in 1908 the springing point of the original Romanesque arch spanning the crossing piers on the east side was uncovered, and is marked by an inscribed stone on the south face of the north-east pier (Welander 1991, 48; see also Ashwell 1983).

F W Waller (1911) gives a detailed description of the 15th-century tower, with photos, plans and diagrams, as well as details of the structural defects discovered in 1906-8. An archaeological/historical assessment of the tower was carried out in 1991 (GCAR i, 91/A). During external tower repairs in 1991-5 it was noticed that there were a number of masons' marks on the 15th-century tower decoration: these were recorded by Pascal Mychalysin (Heighway and Mychalysin 1999).

The lady chapel

The present building, 1468-82 (Welander 1991, 265) was possibly built on the site of a 13th-century lady chapel, built by Sir Ralph de Wylington in 1224. Incorporated into the lady chapel must be the eastern axial chapel of the Romanesque church, on the same plan as the eastern chapel of the crypt, which still survives beneath the west end of the lady chapel. The details of the structural sequence in the area of the lady chapel are not clear. The chapel of Ralph de Wylington may only have been a refurbishing of the Romanesque chapel. Welander claims there is evidence in the western gallery chapel of 13th-century work (Welander 1991, 268-9).

The lady chapel was 'ruinous' in the late 19th century (Waller 1891; Welander 1991, 486). It was restored by Waller with the advice of John Pearson, not entirely with the approval of antiquaries (Anon 1893). Waller and Pearson presented a report (Spence 1892). The most urgent work needed was external, and this was done in the next few years (Spence 1894).

2: THE CLAUSTRAL BUILDINGS

The west slype or locutorium

This passage led from the cloister to the Great Court to the west, and in monastic times would have been the point where the monks were allowed to talk with visitors.

The passage lies underneath a 12th-century room formerly the abbot's chapel, and now an office in Church House. The chapel, date 1120-35, has a tunnel vault and Norman wall-shafts with multi-scalloped capitals; it also has a 15th-century tile floor at the east end. There can be no doubt that the parlour beneath is early 12th century or earlier, although it has been altered more than once from its original design.

A record was made of the architectural details of the locutorium when the plaster was stripped in 1991 (23). The southern wall at the east end carries an arched recess. The west end of the recess is supported by a scalloped square abacus set on ashlar quoins; this is straight-jointed to the large-block wall behind it, the latter presumably the original wall of the church. The large-block wall is in contrast to the (mostly) small blocks of which the locutorium wall is composed. It is clear that the locutorium was built independently of the church by adding a wall against the church wall.

On the north side the second capital from the east is reused from elsewhere. The vault of the east bay has at some time had an extra rib inserted, supported on 12th-century shafts and capitals also reused from elsewhere. The sides of the passage originally had stone benches, but only the southern bench and part of the northern one survives.

Plaster stripping also revealed on the south side wall, massive (*c.* 600 x 200mm) rectangular blocks which were in contrast to the rest of the wall and might be reused Roman, or could possibly be the remnants of a high plinth of the original church wall.

It should be noticed that the north wall of the church (against which the locutorium is built) is fully 3m thick. This additional thickness is reflected in the roof-plan (see north aisle roof) and extends easterly 8.2m from the present west front. It is probably the remnant of the north wall of the northern of the two 12th-century western towers.

The locutorium leads from the cloister to the east down a flight of steps to the outer court. The locutorium floor beyond the steps slopes appreciably down from east to west, and always has done, judging by the level of the column bases. The cloister floor is at 14.85 AOD; the floor level by the locutorium entrance is about 13.0m AOD.

East slype

This passage is very different in style to that on the west side of the cloister (see west slype). It has a row of blind arcades on both sides of the passage, with benches. Originally the passage only extended the length of the north transept. In the 13th(?) century the crypt north chapel was refurbished and a flight of steps installed leading to an entrance which led out into the churchyard just east of the east slype. This chapel is said to have been a mortuary chapel and the steps were for access to the graveyard for burial. There is also a window with the remains of 14th-century tracery which gave a view into the crypt north chapel from just outside the slype.

The passage originally opened into the great cloister, and gave access from there to the cemetery; this access was blocked in the late 14th century when panelling was applied in the cloister walk. A small doorway was opened up in 1873, but this is now unused (Welander 1991, 320). In 1976 the passage was blocked again when part was converted into the treasury. Records were made of the plain 14th-century tile floor, of the arcading and benches, and of 18th-century graffiti executed by pupils of the Song School (40).

In the (?late) 14th century the passage was extended when the library and vestry above were built: a circular stair was also added at the north-east corner of the passage, to give access to the library. The passage is deflected slightly to leave room for this stair. The stair has two entrances: one from outside the passage to the east, one via a tunnel from the south.

The extension of the passage made internal the entrance to the north-west crypt chapel, and its squint window, which had until then opened into the cemetery.

Chapter house

The Norman chapter house shows two phases in its western wall, and its second phase is assumed to be a rebuilding after the fire of 1102. The walls were surrounded by arcaded recesses in which were stone benches (Hope 1897, 103-4). The south-west corner of the chapter house is occupied by a circular stair which gave access to the library from inside the chapter house (the other stair to the library, at the north-east end of the east slype, was not accessible from the cloister after the 14th century).

The medieval chapter-house was used for burial, as the discovery of stone coffins indicates. Black-letter inscriptions in the alcoves, probably 13th-century in date, commemorate famous burials which may, however, have been interred elsewhere in the church (164).

In the 15th century the 12th-century apsidal east end of the chapter house was replaced by a rectangular structure. In the 17th century the chapter house was used as a library, for a time as a public library.

In 1858 the chapter house was restored, the library moved back to its original home, the tile floor of the chapter house taken up and put in the tribune gallery, and a new floor laid (Welander 1991, 462-3).

Library

The 14th-15th century library, after long use as a schoolroom from 1541-1849, was restored and returned to its original function in 1857 (Welander 1991, 584-90). It has two original staircases, one inserted in the south-west corner of the chapter house, one at the north-east corner of the library. The present main entrance, from the north transept stairs, is a 19th-century arrangement.

Cloister

The cloister is described in detail by Welander (1991, 215-235). It was originally painted; traces of red paint were seen during cleaning in 1993 (29). The north walk of the cloister contains the lavatorium, which until the 17th century was supplied with water from lead pipes.

Previous cloisters stood on the same plan (as is shown by the 13th-century doors on the north side). The cloister garth was used as the deanery garden in the 17th century, but was cleared and the ground level lowered by Waller in the late 1880s. At that time, a medieval stone tank was uncovered which Waller recorded. The tank was described as a 'reservoir' but it probably also served as a flusher-tank for the abbot's lodging (Heighway, 2000). A watching brief during excavations for the new fountain at the centre in 1996 established that archaeological strata survive at a depth of about 600mm (30).

St John Hope claimed that on the lowering of the garth there had been found a multi-foil basin in the cloister garth, which he thought had belonged to an earlier lavatorium (Hope 1897, 129).

Dorter

The dorter, with an undercroft, would have been north of the chapter house: Ashwell suggested there was evidence to show that part of the Norman dormitory occupied a second storey over the north end of the east walk of the cloister (Welander 1991, 324; Comely 1998, 196). A new dorter was built in 1303, which Hope thought was oriented with the long axis east-west, because this was the only position which fitted in with the layout of the infirmary (Hope 1897, 104). A fragment of one of the dorter windows, with ball-flower ornament, can be seen at the external north-east corner of the chapter house. High up in the cloister wall, in the expected dorter position at first floor level, is an arch blocked with brick, 6.7m wide, which Hope calls a 'Norman recess' (Hope 1897, 105) but which could be 14th-century in date and represent the entrance to the dorter (Ashwell, in *FGCAR* no 33, 7).

Refectory

The 12th-century refectory undercroft was excavated by Hope in the late 19th century. It was about 10 feet high, and divided down the middle into two aisles by a row of square Norman piers, upon which, and upon a series of corresponding pilasters along the side and end walls, rested a plain rubble vault. One of the responds on the south side retained its square chamfered abacus and a fragment of the springing of the vault (Hope 1897, 110). It was demolished in the 17th century (162). Hope thought that, judging from the positions of the responds he excavated, the Norman refectory originally included the Dark Cloister. A new refectory was begun in 1246 on the site of the Norman one (Hart, i, 30); it was a great hall over 130 ft long and nearly 40 ft wide. It had an undercroft beneath, and was reached by a flight of steps from the north-west corner of the cloister, where the 13th-century doorway can still be

seen. The south wall, being common to the cloister, still survives up to the height of the window sills which, according to F S Waller, survive under the coping now surmounting the wall. The east end is also standing: it has its width nearly filled by the lower parts of five broad panels separated originally by detached shafts, and in which higher up there were probably windows. Much of the stonework of the east and south walls is reddened by the fire that destroyed the frater in 1540 (Hope, 1897, 108-9, and observation, 1998; condition survey in Comely 1998, 152-3).

At present view of the west wall of the refectory is hindered by a tree and a garden shed, but unencumbered views are to be found in the cathedral library slide collection. The refectory undercroft was described in 1649 as ‘...a garden...with a great cellar...which now is of no use but hath good stone on the North side of it’ (Oliver, p 280).

Little cloister (infirmary cloister)

The infirmary cloister is usually known today as the little cloister (**136**). Its tracery is 15th century, and its west walk is built over by a 17th-century timber-framed building known as Little Cloister House (**137**). In the south-west corner of the cloister garth is an inserted chimney-base, presumably 16th or 17th century. In the north-west corner is what appears to be another chimney-base, but the top is open, the shaft is hollow, and there is no blackening or burning. It is not clear what this shaft is. The south walk is now part of the infants’ school. The south wall, which is the north wall of the refectory, contains two blocked openings. The larger is 12ft wide. Hope thought this was the entrance for bulky stores going into the undercroft. There is a smaller opening just to the east, now blocked, which according to Hope opened into a passage in the thickness of the wall with three steps down at the end. At the bottom was an archway opening into a passage 17 ft long and over 6 ft wide, which led under the ‘Dark Cloister’ to a building on the other side (Hope 1897, 110). There is no access today to this passageway, which is presumably still buried below ground level.⁴² The large opening may have been, as Hope thought, an entrance for stores, but in that case before the 15th century when the little cloister was built, this space must simply have been an access courtyard.

The curious angle of the north side of the Little Cloister must relate to buildings that were there before the little cloister was built, and which had to be allowed for in the plan. The alignment of the west part of the north wall is the same as the alignment of the back wall of the west part of Little Cloister House (**138**).

Infirmary

The remains of the 13th-century infirmary (**135**) survive as six bays of the south arcade, and two pillars of the north, with part of the west wall, including the central doorway. The arches have been capped off with a stone coping. The arches have been many times repaired and rebuilt. Two of the south-east buttresses of the infirmary chancel (Fig 8) can be seen in the cellar of Dulverton House (**134**).

The infirmary chancel was probably the chapel dedicated to St Bridget (Welander 1991, 112-3, 329; above p 22).

Most of the infirmary was demolished at the Dissolution, but the arcade and part of the west end were incorporated into a range of domestic buildings whose upper rooms were known in the 19th century as ‘Babylon’. These buildings were divided into numerous little chambers and were used by the 17th century to house choristers, almspeople, and poor widows (VCH iv, 286; Welander 1991, 408). There is a detailed description of *c.* 1649 (Oliver, p 260; Eward 1985, 38-9, 97-8), although this is difficult to understand in the absence of a plan. The demolished buildings of ‘Babylon’ are described under ‘post-medieval archaeology of the precinct’, section IV.4.

After the 1860s the arches of the infirmary hall were in the open. In 1862 they were rebuilt, including all the walls between the arches, the surviving south wall was raised, and new coping put on (GCL MS53, p 52). Minor repairs to them were carried out from then onwards (e.g. 1863; CAB 7, p.13; 1969 CWB vol 15).

An excavation was carried out in 1984 to establish the depth of surviving remains of the infirmary: post-medieval walls were encountered (**35**).

The possible infirmarer’s lodging (Dulverton House) is described above (p 22).

42 The passage was located at the building of the Kings School lavatories in the early 1950s: B Ashwell *in litt*

3: OLD ABBOTS LODGING (CHURCH HOUSE)

Though not strictly speaking a part of the claustral buildings, this building forms part of the area of ecclesiastical exemption (Fig 1) and therefore comes under similar controls to the cathedral church and claustral buildings.

This range of buildings was the abbot's lodging until 1329x37 when a new lodging was built north of the claustral buildings (Hart i, 46). The old abbot's lodging then became the prior's lodging and, after the Dissolution, the Deanery. In 1948 the building became Diocesan offices; the Deanery had been relocated in 1940 at no 1 Miller's Green (VCH iv, 287).

This complex of buildings can be divided into three, with a fourth part which is no longer extant.

'Parliament Room' (123)

The remains of an external window on the ground floor north wall show both that the stone base of this building is 13th century, and that in the 13th century this building extended further west.⁴³ The half-timbered room above is of the late 15th century. The painted panel now in the room came from Little Cloister House (138). The building which stood next to this on the west was rebuilt in 1670 (see 122). In 1649 'the Parliament Room' was part of the Deanery (Oliver, p 267-269).

Stone building (124)

The first floor appears from the internal evidence to have been added to the 'Parliament Room', but investigation on the ground floor (15) showed no straight-joint between the ground floor of 124 and that of the Parliament Room 123. The 15th-century roof is only visible in the Henry room; in the Laud room it is obscured by Jacobean panelling. Bernard Ashwell (in litt) described both parts of the roof as similar in type, and probably of the same date. One of the 15th-century roof supports in the northern room (the 'Henry' room) covers a splayed window in the stone east wall, so the upper storey had at least an eastern wall of stone before the 15th century. Bernard Ashwell states that the red painting on the beams in the Henry rooms is medieval, and that 'Clive Rouse inspected them and made a report about twenty years ago' (in litt written c. 1986). In the south-east corner of this building is an octagonal stair-turret, rebuilt in the 19th century, which links this block with the 12th-century 'tower' (125).

Old Abbot's Lodging (125)

A rectangular stone keep-like building, with one room over the west slype known as the abbot's chapel. St John Hope described this rectangular building as 12th-century - 'three large square Norman chambers, one above the other, with their original windows enriched within and without with zigzag mouldings.' (Hope 1897, 121). The building has an early 13th-century vestibule on the west side; its ground floor has quadripartite vaulting on wall shafts with stiff-leaf capitals. Externally the gable-end of this 13th-century extension has 12th-century detail, with chevron blind arcading. This detail must have been reset in the gable when the 13th-century bays were built.

This building has many confusing features which result from architectural re-use of 12th-century and later material. In the basement, at the south-west and south-east corners are squinch arches, both also made out of re-used 12th century and later mouldings. It is not clear what purpose these serve: they do not support the floors, and there are none on the north side. Perhaps they were inserted to support the walls of the abbot's chapel, which, with the west slype beneath, shows signs of movement and rebuilding (see West Slype).

There are three floors. In the north-east corner of each floor, on the north elevation, is a doorway; St John Hope thought this originally opened into a garderobe tower, later destroyed (Hope 1897, 121). The walls of the garderobe tower were on Carter's plan, and have been located in excavation (20). The doorways now serve an iron fire-escape. Each doorway has surrounding mouldings made up of re-used mouldings, some 12th century, some 13th century. The ground floor opening has a head made of a re-used 12th-century arcade ornamented in the style used on the capitals at the west end of the nave (c. 1130) (Welander 1991, 55, 57). Welander suggests these may have come from the 12th-century cloister (ibid, 81).

43 This building was studied by Rochelle Rowell in 1999.

The windows on the north elevation are rectangular, with mullions; each window has four rectangular lights. The internal jambs and central supports are all decorated with variations of chevron ornament, and 14th-century arch mouldings have been reused over the window embrasures. On the top floor the deep stone lintel of the two western surviving openings have paired curved rebates in their soffit, representing the re-used lintels of windows with two semi-circular lights which were rebated to take shutters. Here one window has been blocked up and another covered by a later fireplace, but as on the other floors the window jambs are decorated with billet-and-chevron ornament, obviously re-used. Also on the top floor is an extra window (now occupied by a modern doorway), with a lintel showing the same shutter-grooves as the other windows: its position occupies that of the original 12th-century west wall, so it is obvious that the fenestration post-dates the 13th century vestibule. It also predates the enlarged (?19th-century) staircase block.

There can be no doubt that this elevation was entirely rebuilt/redesigned using 12th century and later materials at some time after the 14th century. In the 18th century the whole of this north face was obscured by the Deanery east wing (**185**), built by 1649 but demolished by 1843 (Fig 9.3), so the rebuilding must have taken place in the 15th to 17th centuries – perhaps in the 16th century, when the house first became the Deanery as opposed to the Prior’s lodging. Some of these mouldings may then have been on their second re-use.

It is clear that the 12th-century building was a simple tower-block of three storeys, but nothing of its appearance can be deduced from the surviving building.

This block (**125**) was joined to the next block (**124**) on the north by a staircase tower. Waller rebuilt the staircase and enlarged the hallways, but the rebuilding imitated the medieval arrangement, for there was a stone cresset found on the staircase wall.⁴⁴

East Range (185)

The present courtyard was once occupied by buildings. This east range had medieval foundations (**20**). When it was surveyed in 1649 it measured 78 x 27 feet in 1649 and consisted of stables and a ‘lodging chamber’ (Oliver, 267-9). The range was removed by the mid 1730s when a brick coach-house and stable were built on part of its site (VCH iv, 287).

4: BURIALS, MONUMENTS AND LEDGERS

Ledgers and wall-plaques are an indication of under-floor burials most of which are likely to be in brick and stone vaults. Carter and Basire (1807) recorded the position of many of these, including a few of the many under the cloister walks, but did not provide a key to their occupants or inscriptions. Even in 1807 the ledgers within the church probably did not cover their original graves (see Cooke 1789, for relaying of ledgers in the 18th century); many 17th and 18th-century ledgers must have been moved from their original position. Exceptions are the ledgers between each nave pier, which are so positioned as to be well defined and protected; these are probably over their original vaults. A radar survey carried out in 1987 (Comely 1998, Appendix E) confirms the presence of vaults in these positions. The vaults may be expected to be particularly dense down the centre line of the nave and along the side aisles.

In 1985 two coffins in the Dean Tucker vault on the east side of the south transept, were recorded (**63**).

In 1986 a stone coffin was found under the screen in the ‘Checker’ (**61**). It was just under the floor, and without its lid, indicating that the floor level when it was buried was slightly higher. This coffin probably represented a re-discovery of one of a number found in 1741, when the Kent screen was built, and discovered again in the 1780s during re-flooring. One of these coffins contained the body of an abbot, said to be Abbot Wygmore (1329-37); the coffin contained a silver-decorated crozier and other items (**167**). The crozier is in the Society of Antiquaries, London.

In 1741 the tomb of Abbot Sebroke was opened and a wooden crozier taken from his coffin (**166**). The crozier is now in the Museum of Newcastle Society of Antiquaries, and there is a copy in the cathedral (to be located in the treasury in 1999).

The body of Edward II which presumably lies below his effigy would have the potential to answer questions about the manner of his death.

44 *The Builder*, June 20, 1863

The body of Robert, Duke of Normandy, was buried in 1134 ‘under the pavement before the Altar’.⁴⁵ The other burials mentioned above were in the part of the choir west of the crypt, but the high altar stands over the crypt. It has therefore been questioned whether a burial could be made cutting into the crypt vaulting (Welander 1991, 82). However the space of a few feet which exists above the crypt vaults (see e.g. Britton 1829, plate xvii) would have been sufficient for a stone coffin.

In the early 1890s a record of ledgers in the lady chapel was carried out by the sub-sacrist prior to the refurbishing of the lady chapel (inf. the cathedral librarian, Lowinger Maddison; the survey is in the cathedral library). There is a numbered plan of all ledgers recently carried out by Astam Design Ltd at an approximate scale of 1:150. This and the early records are being used by the librarian as the basis for a survey of all ledger stones, following the revised guidelines issued by CFCE in January 1997.

A survey by NADFAS of monuments (completed in April 1999) is in the cathedral library.

A handlist of monuments by Gwen Martin (Martin 1994; and see also Martin 1993) is now superseded by the ledger survey and by the NADFAS survey.

Welander (1991, 578-84) lists the principal monuments, and gives a bibliography.

The paintings of James Ross (1806) provide details of the monuments and provide a location plan. At the time Ross did his paintings, the effigy of Robert of Normandy was in the north-east ambulatory chapel (Ross 1806, pl 5 and 19) where it had been moved in the 18th century (Welander 1991, 115). Carter (1807) and Willis place the effigy in the presbytery.

The earliest record of tombs and monuments was made by Leland in 1541; he mentions the burials of Osric, Robert Curthose, Edward II, Serlo, Abbot Parker, Abbot Horton, Abbot Froucester, Gamage a Knight of Wales and his wife, and ‘a corse wrapped in a bulles hyde’ said to have been a Countess of Pembroke.⁴⁶ Leland describes the positions of these burials; he also listed the inscriptions at the east end of the church.⁴⁷ The earliest labelled plan of burials and effigies/monuments is that of Browne Willis (Willis 1727). Most of the monuments he lists are in the same position today.

5: TIMBER ROOFS⁴⁸

The timber roofs above the vaults are, in many cathedrals and abbeys, a rich source of historical research. However, few of Gloucester’s timber roofs survive, most having been replaced with steel trusses in the 1950s. The south transept has a softwood timber roof erected c. 1825 (Ashwell 1985b, 3/32). The roofs of the nave, presbytery, choir, and north transept all have galvanised steel roofs erected in 1953, 1953/4, 1957, and 1961 respectively (Ashwell 1985b, 3/32, 4/1, 4/2). Fortunately, there survive excellent records made by the architect of the former timberwork.

The nave roof (Ashwell, n.d., Figs. 7-9, 26; Welander 1991, 516) showed a low-pitched butt-purlin roof with fourteen king-strut principal trusses; the king-struts had raking struts to the principal rafters and the ridge-piece, and there were two purlins on each side. The design was similar to the pre-16th-century nave roof at Tewkesbury (Hewett 1985, 68). The roof had been mostly renewed in softwood in the early 19th century and appears to be the roof shown on Ansted’s cross sections (Britton 1829, Plate III, XVII, VIII, XVI). The end trusses of the roof had additional queen-struts between the ties and principals (Ashwell n.d. Fig 9) which might represent an earlier arrangement. Ashwell thought the roof might be 15th century, and this is not unlikely, though the then Cathedrals Advisory Committee thought it contained no surviving medieval timbers.

The choir roof was different to the nave, having ten king-strut trusses but no ridge-piece, and the two purlins on each side supported by large queen-struts (Ashwell, n.d. Figs 120, 131, 132). All but one of the ties had been scarfed, probably as post-medieval repairs; the roof was probably original 15th-century work.

The north transept had a four-bay roof with two tiers of clasped purlins held between collars and principal rafters, with two queen-struts supporting each collar, and curved wind-braces to the lower purlins, probably of late-medieval date (Ashwell n.d. Figs. 120, 131, 132). The north gable end of the transept shows the outline of a still earlier roof of steeper pitch; this steeper roof line is not visible on

45 P McGurk (ed.) *The Chronicle of John of Worcester*, iii (Oxford 1998) s.a. 1134 at p 213; see also Hare 2002.

46 L Toulmin Smith (ed.) *Itinerary of John Leland* 5 vols (London 1907-10), ii, 60-61.

47 Toulmin Smith, *Leland*, v, 156-7.

48 This account is heavily reliant on notes made by Julian Munby, who based his comments on Bernard Ashwell’s record drawings and whose assistance is gratefully acknowledged.

the north face of the tower, where it was overlain or rebuilt when the 15th-century tower was built. The north aisle roof is still timber; beneath it are the 12th-century stone vaults. Though much patched and repaired the roof includes some medieval timbers, particularly some of the tie-beams, although there is no sign that any of the timbers are remnants of the Romanesque roof (GCAR ii, 97/B). The south aisle roof is similar: it includes some medieval timbers, but with much repair of later date (Comely 1998, 113). The roof of the south ambulatory is probably ancient (Comely 1998, 109). The north ambulatory roof is possibly 19th century (ibid, 107). The 15th-century porch also has a medieval roof, as does the lady chapel. The medieval tower roof recorded by Waller (1911; Fig 12; and also in Britton 1929, plate XVI) was repaired in 1948 but still includes ancient timberwork; the two floors of the tower are 15th century (Hewett 1985, 150 and Fig. 144), as is the library roof.

The cloister walks have roofs of concrete beams installed in the 1960s (Comely 1998, 123). The chapter house roof is thought to be Victorian (ibid, 120).

6: TILE FLOORS

Gloucester Cathedral's wealth of medieval tile floors are eventually to be published by Laurence Keen. The most famous floor, that in the choir presbytery, made for Abbot Sebrok c. 1450, has most recently been described by Ann Kellock (1989). In 1999 this floor has just been exposed to view, having been hitherto part covered by carpet.

The tile floor in the lady chapel has been much damaged by ledgers of 18th and 19th century date. It was taken up and relaid in the 19th century, presumably preserving the original layout, in so far as this survived. Originally it consisted of a series of 9-tile roundels, with three main designs of which one bears the legend *AVE MARIA GRACIA PLENA DOMINUS TECUM*. A 1:20 plan of the lady chapel and its tiles has been made (50), accompanied by a numbered working inventory of tile designs. The original survey and a copy of the inventory are in the Cathedral Library.

The tile floor in the south-east ambulatory chapel has been recorded by Laurence Keen (57).

Tile floors in the nave are mentioned elsewhere (p 36-7 above): several patches of *in situ* tile have been discovered in the nave (65, 66).

The tiles in the lady chapel south chantry have also been recorded (58).

In the tribune gallery are tiles from the lady chapel, the presbytery, and the chapter house; these were laid here during refurbishments in the late 19th century. The chapter house tile floor was then taken up and replaced with modern tiles.

The cathedral also has extensive 19th-century tile floors, many by Godwin of Hereford.

An inventory of tile floors in the cathedral is given by Welander (1991, 553-5).

7: WALL PAINTINGS

Wall paintings, both medieval and post-medieval, are more extensive than might be supposed (see list in Comely 1998, 228). The best known are the paintings on the piers next to the tomb of Edward II, and the 'Reynard the Fox' panels (Rouse and Varty 1976).

A 15th-century ceiling painting in Little Cloister House included a painting of the Trinity, painted ribs with angel bosses. The Trinity painting is restored and is in the Parliament Room; parts of the ceiling paintings have been in store for 50 years and have been the subject of an assessment (Rickerby 2000).

A thorough survey of all wall paintings would probably produce many more examples, including many medieval survivals.

8: PAINTED GLASS

The great east window is mentioned above, section VI. Other painted glass is dealt with in full in Welander (1985). A section on the condition of the windows is in Comely 1998, 211-15.

VII THE BUILDING STONE

by Arthur Price⁴⁹

Introduction

Medieval building accounts, such as those at Exeter Cathedral, do not survive at Gloucester, and even later records up to modern times, regarding stone types used, are incomplete. Some types of medieval stone occur in only limited quantities, or were used for specific projects, and were probably donations from benefactors ultimately seeking a greater reward in the afterlife. The Berkeley and Giffard families probably gave stone several times. Such gifts have been recorded for Llanthony Priory.

The earliest report on the Cathedral fabric, in 1839, describes it as

built of a fine grained and ill cemented oolite, a shelly oolite, a red sandstone (north side) intermixed, of which the former constitutes the greater proportion. The Tower (15th C) is of shelly oolite in perfect condition. The early turrets of the South Transept are also in good condition. The body of the building is much decomposed. The small cloister is built of a fine oolite with a compact cement and is in good condition.⁵⁰

This simple view was even then incomplete as many stones foreign to the immediate vicinity had been, and continued to be, imported by river, canal and later rail, in ever increasing quantities. To date nearly eighty different types of building and ornamental stone⁵¹ have been identified in the Cathedral and surrounding precincts.

The local geology⁵² is fairly simple. Gloucester is situated on a gravel and sand terrace which overlies Liassic clay. To the west Triassic and older strata outcrop; to the east are younger Jurassic rocks. In this report, when referring to the Inferior Oolite, the long established stratigraphical nomenclature is adhered to. In paragraph headings, stone types shown in brackets are either local (rather than geological) names, or the name as given in the Cathedral accounts.

The stone

Painswick Freestone (Whitestone)

Both the Cathedral and Tewkesbury Abbey⁵³ have traditions that they were originally built of Caen stone. At Gloucester, oral legends survived to this effect until c.1994.⁵⁴ Despite many authors likening Painswick to Caen stone they are in fact very different.⁵⁵ Fine white oolitic freestone (Lower Freestone from the Lower Inferior Oolite of the Middle Jurassic) was available in large blocks, weighing upto five tonnes. It outcrops all along the scarp from Selsley Common/Nailsworth northwards through Painswick nearly to Birdlip, where it changes character, becoming first harder, then browner and softer.

Painswick stone was extensively used in the Roman period and many of the stones used at Gloucester Cathedral are re-used Roman, judging by the evidence of Lewis holes in non-lifting positions. At nearby St Oswald's Priory, the church of the early 10th century made extensive use of re-used Roman stone⁵⁶. Current research on the salvage of Roman stone is being carried out by Steve Bagshaw and Arthur Price.

Building stone for the abbey would in all probability have come from re-opened Roman quarries. On the escarpment close to Gloucester there are the remains of many ancient quarry sites, now wooded. The abbey owned land west of Horsepools, with all Standish, a manor in Painswick, Prinknash Park, large areas of Buckholt and Ebbworth near Cranham. The main quarries appear to have been in the ancient parishes of Kings Barton, Matson and Upton St Leonards where they abut the scarp. Upton and Freme quarries were working in 1442⁵⁷ and the first was leased by the abbey in 1525 to Richard ap Herry (alias Rice) and son Richard (Hart iii, 307-308). A clause required that

49 The author is grateful to Dr David Jefferson for commenting on an earlier version of this paper.

50 C Barry, H De La Beche, W Smith, and C Smith, 'Report on the Royal Commission for the selection of stone for the New Houses of Parliament' *House of Commons* 30 (1839)

51 A J Price, 'Fascinating Fossils', *Cathedral Newsletter*, New Series no 53, July-August 1999, 14-16

52 G W Green, *Bristol and Gloucester region*, British Regional Geology, 3rd edn, British Geological Society (1992)

53 B Chamberlayne, 'Maismore and the River Severn' *Gloucester History* 6 (1992)

54 As told to A J Price by a Cathedral guide, 1994

55 F J North, *Limestones, their origins, distributions, and uses* (1930), 207

56 C Heighway and R Bryant, *Golden Minster* (York, 1999)

57 L F Salzman, *Building in England down to 1540: a documentary history* (1952), 126

‘the said Richard and Richard shall delyver unto the seid Abbott and his successors as moche of roughe stone called assshelers and moldestone as the seid Abbott and his successors shall requyre for theyr buyldinge duringe the seid term for every load of the same after the quarre use dressyed 8d at the quarre.’

At the dissolution this quarry was worth 12d a year.⁵⁸ These sites have been identified in Buckholt and Popes Woods.⁵⁹ Llanthony Abbey also appears to have had the use of quarries at various times in Popes Wood and most of the quarries further southwards - around Painswick Beacon.

In c. 1300, Abbott John de Gamage paid 50 shillings for wrought stone from ‘Pychencumbe’ from Walter le Braht.⁶⁰ In 1522 St. Batholomew’s Hospital leased the Red Quarr from the abbey. Thought to have been sited on Robinswood Hill (VCH iv, 439), it is now known to have been located at the western end of Spoonbed or Cud Hill.⁶¹

In the late C11 the ownership of ‘Shoteshore’, identified by 19th century antiquarians⁶² as Scotts Quarr at Edge, was in dispute between St. Peter’s and the Berkeleys. Roger De Berkeley became a monk in 1091 and surrendered the land (Hart i, 112, 122-3), in time for the rebuilding of the abbey after the fire of 1122. It is now known that ‘Shoteshore’ is located in Hardwicke.⁶³

Minchinhampton Weatherstone (Hampton Stone/Plinth Stone)

This limestone, from the Great Oolite Group of the Middle Jurassic, is found on Minchinhampton and Bisley Commons. A hard silver-grey coarse fossiliferous rock (Shelly Weatherstone) with occasional ‘sand holes’, it was used for exposed areas such as plinths, string-courses, copings, parapets and pinnacles. This, with Painswick, would have been the original building stone of the abbey. Documentary evidence survives only from c. 1785, and by c. 1800 it was relegated to use at ground level for bases and plinths because of the emerging fashion for the use of Bath stone. By 1827 it was completely discarded in favour of Bath. In 1873, Waller, noticing the decay of the Bath stone, returned to the use of ‘the best and hardest beds’ of weatherstone from Crane Quarry, Minchinhampton Common (Waller 1884). When restorations restarted in the 1950s the only quarry left working was Simmond’s or Tuffley’s Quarry at Burleigh.⁶⁴ This quarry closed c. 1955. At the same time the Dean and Chapter reopened another nearby, the Dean and Chapter Quarry, but it was not a success and closed soon after. The last stone was used in 1959. Very little weatherstone is visible today, the best examples being found capping the plinth immediately to the south of the west door and the bases of the flying buttresses along the south aisle.

Calcareous Tufa (Puff stone)

There are several outcrops of spring deposited tufa in Gloucestershire, Quaternary to Recent in age. Most were first recognised and exploited during the Roman period. It is a cream coloured, lightweight cavernous limestone, the holes partly formed by the decay of encrusted vegetation. The largest and most well known occurrence is at Dursley, where it was known as ‘Puff stone’. In 1803 it was described as

‘occurring in one bed or stratum, and it is so soft, as to be cut into pieces of any size or shape, but when it has been exposed for some time to the sun and air, assumes an uncommon degree of hardness and durability. The extreme lightness of it renders it highly useful in the construction of vaulted ceilings, to set between the ribs of springing arches. The high choir of Gloucester Cathedral is said to be a fine specimen of it.’⁶⁵

The quarry was owned by the Berkeleys and similar tufa can be seen at Berkeley Castle and many

58 J Caley and J Hunter (eds) *Valor Ecclesiasticus temp. Hen. VIII auctoritate regia institutis 1535* (Record Commission, 1810-34), 416

59 Price and Nielsen forthcoming, ‘Gloucester’s Roman and medieval quarries’

60 J M Hall, ‘Pychencumbe: abstracts of original documents in the registers of the Abbey of St Peter, Gloucester’ *TBGAS* xiv (1889-90), 141-162, at 160

61 Price and Nielsen forthcoming

62 H Barkly, ‘The earlier house of Berkeley’, *TBGAS* viii (1883-4), 193-223, at 197; W C Lucy, ‘Scotch quar Hill, Harescombe’, *Gloucestershire Notes and Queries* ii, no 842, 429-431

63 Hart i, 112, 122-3; the descent of the property and its identification has been established by John Rhodes and I am grateful to him for this reference.

64 A J Price, ‘Frank Simmonds recalls his quarrying and building career’, *Gloucester Society for Industrial Archaeology Journal* (1995)

65 T Rudge, *The History of the County of Gloucester, compressed and bought down to the year 1803* (1803), 217

churches (from Norman times onwards) associated with the family. As well as in the choir, tufa can be seen infilling part of the crypt. The largest single piece supports the mensa in the west gallery chapel above the lady chapel.

Lias (Mudstone)

These Jurassic, Lower Lias rocks are blue-grey impure limestones found interbedded between mudstones, clay and soft shales. It would have come from nearby, natural river-side exposures and shallow pits N and S of the city. In 1265 it was being quarried at the Denny, Minsterworth (GRO GMS 152) and later was bought down-river from Ashleworth.⁶⁶ There were also several lias quarries at Elmore and the Dean and Chapter owned Wooldridge Quarry at Hartpur, where the lease was for sale in 1784. Lias was easy to quarry but only available in thin blocks and does not weather well. It was used at Gloucester in the larger secular buildings such as Tanners Hall, in Hare Lane, built in the 13th century, with quoins and windows of Painswick stone.⁶⁷ The claustral ranges at Blackfriars made considerable use of it, especially in the south range. In the Cathedral Close, the precinct wall was originally of lias - a relatively untouched part survives behind the School of Ministry at 7 College Green and in the cellar of 3 College Green (153), certainly the internal precinct wall which divided the gardens from the monk's cemetery, at 20 College Green (90), was of this stone. A fragment of surviving wall which formed part of the domestic range at 4 Millers Green used courses of lias stone to create decorative banding. In 1863 it was chosen for the rebuilding of the then Deanery (now Church House), with Painswick and Bath stone dressings. This stone was not, however, used for the walls of the cathedral church, except as rubble infill, or burnt for lime. However, Blue Lias was used internally for polished shafts in the Early English period. There are small clustered shafts in the nave; longer examples fronting the 13th-century 'Reliquary' and in the northwest and north-east corners of the cloisters. Previously, as elsewhere in the west country, it has been misidentified as Purbeck Marble.⁶⁸

Old Red Sandstone (Red Forest stone)

This rock is probably from the Devonian Old Red Sandstone (ORS) west of the Severn.⁶⁹ The Blackfriars, built in the 13th century, made extensive use of this stone in the primary building campaign (1230-1270). It is similar to Wilderness Stone, Mitcheldean, which is a dull reddish brown, hard micaceous sandstone. When mixed with or placed below limestones it does not weather well, becoming soft and friable. Though not used in the original abbey church, it was used for repairs in subsequent centuries; patches of it are particularly noticeable in the precinct walls. The outer north wall of the north aisle is said to have been, partly refaced in Red Sandstone. It was most likely employed to repair fire damaged stonework, remains of which can still be seen behind the ornamental panelling in the Cloisters below.⁷⁰ The sandstone was identified by Waller (Waller 1855) and mostly removed by him between 1853-1863, replacing with Bath stone. All the remainder went in 1954 when 'Tetbury stone' from Veizy's Quarry, Chavenage was used (Ashwell n.d. *Chronicle*, i, 15). A sample of the sandstone was not kept making identification difficult.

Red Forest stone from the Forest of Dean was extensively used for steps, repaving and the occasional tomb ledger from the 1780s.⁷¹ Most if not all the paving has since been replaced with limestone.

Guiting /Peagrit equivalent

This is a deep yellow/brown coarse shelly stone from the Lower Inferior Oolite of the Middle Jurassic. These characteristics easily distinguish it from Painswick stone. Patches of it are particularly noticeable, for example, on the lower part of the south chantry chapel of the lady chapel and further around the east end. While not the same as the 'classical' Peagrit from Cleeve Hill, or Guiting from quarries at the same location, it is similar to that from Brockhampton Quarry; incidentally the nearest source to Gloucester.

66 Known as Ashleworth stone.

67 C M Heighway, 'The Tanners Hall, Gloucester', *TBGAS* ci (1983), 83-110

68 D T Donovan and R D Reid, 'The stone insets of Somerset churches', *Proc Somerset Archaeological and Natural History Society*, cvii, 61-71 (1963)

69 Research continues.

70 The most likely date for this fire damage is 1300. Typically it shows as a pink red staining similar too and easily confused with an ORS sandstone; suggesting that there may not have been any sandstone in the wall above at all.

71 Papers in Worcestershire Records Office.

This quarry is documented from medieval times⁷² and has been recorded in Gloucester in the 17th century.

Anston (Anstone)

This stone comes from the Permian Cadeby Formation from Anston in South Yorkshire and is in the records invariably spelled 'Anstone'. It is a fine grained, yellowish dolomitic (magnesian) limestone. It became popular nation-wide after being selected for the New Houses of Parliament in 1839.⁷³ Concern over its decay by air-borne pollution was expressed as little as ten years later. However, the fashion was followed at Gloucester where it was used in 1855-7 for the refacing of the south front of the south porch up to the top of the capitals flanking the porch arch. A record survives of consignments arriving by rail in October/November 1854⁷⁴, and in 1857 a quantity was sold off as surplus to requirements by Waller;⁷⁵ the repair of the south porch was not finished, so presumably this was an example of stone being disposed of when the fashion passed. However, it has weathered exceedingly well and is the only stone on the porch not requiring attention this century. It received a bad report from the former architect, Ashwell (Ashwell 1985, 3/7, followed by Welander 1991, 452) who seems to have identified the wrong stone as Anston and blamed it for the failure of the south porch stone work which was actually due to the deficiencies of Bath stone.

Caen

Although not one of the main building stones to be used at Gloucester this stone is still of interest. It is soft, white to yellowish-white, easily confused with weathered and degraded Painswick, but is not oolitic. Two niche canopies at the west end, and possibly the two canopies of the lowest statues of the south porch, have been identified by Arthur Price and in one case confirmed (Sanderson 1999) as Caen stone. These derive from repairs of the 19th century. Other minor repairs in the north walk of the cloisters are of this stone.

Bath

These stones come from the Great Oolite Group of the Middle Jurassic. Although quarried mostly underground from three different horizons, there are many different varieties.⁷⁶ Only recently has the scale of Bath stone use at the Cathedral been realised. Contemporary masons considered it easier to work and it was cheaper to obtain than the local stones. It first appears in the archives⁷⁷ c. 1780, by c. 1800 more was used externally than Minchinhampton and between c. 1827-1873 it had replaced both Painswick and Minchinhampton for external use. Painswick continued to be used for interior work.

The most securely provenanced of all the building stones used on the Cathedral is Winsley Down from Muirhill. Full details survive for block size, cost, transport by boat and wagon etc. for 1846.⁷⁸ Even with the choice available at the time it was not the most durable of stones to employ in the exposed positions in which it was placed, as clay seams weathered quickly away. The last mention of this type was for specifications for the upper decorative part of Bishop Hoopers monument in 1862.⁷⁹

Although there is no documentary evidence other types were used: Coombe Down and Box Ground stone both show fine vertical calcite-filled veins, known as water-marks, which stand proud on weathered surfaces. A small amount of stone from Hartham Park was used 1952-3. In general Bath stone is a rougher, darker, rock than Painswick, it blisters more readily showing a 'biscuit' texture and colours black or orange in sheltered corners. This type of stone was described by Ashwell as 'Avening' (for the arguments see below); however a fragment of the stone from the south porch was identified by David Pollard of the Bath Stone Quarrying museum as Bath stone.

Scott used Bath stone for the south transept, which was finished by 1868; a contemporary report⁸⁰

72 W J Arkell, *Oxford Stone* (1947), 84

73 G K Lott and C Richardson, 'Yorkshire stone for building the Houses of Parliament (1839-c.1852)' *Proceedings of the Yorkshire Geological Society* (1997)

74 GRO D936 A/30

75 GCL MS 53, 16

76 J Ashurst and J A Dimes, *Conservation of building and decorative stone*, i, (1990), 106-109

77 WRO 2775/829

78 GRO D936 A/30 Cathedral restoration, time sheets and receipts, 1846-1858

79 GRO D2593 2/158 Hooper's Memorial, Conditions of Building, 1862

80 GLib 3.199 Newspaper cutting, *Gloucester Chronicle* 5 Dec 1868

remarked upon the patchy effect, although it soon toned down. F S Waller, realising that he was having to remove stones put up earlier in his career, returned to the traditional local stones in 1873.

Clipsham

This well-known stone from near Oakham, Rutland, was made popular through having been chosen for the restorations of Oxford colleges and for the Houses of Parliament. It is from the Jurassic Leicestershire Limestone and is a buff to cream-coloured medium grained oolite with shell fragments. Known to have been used from 1962⁸¹ for instance for the west parapet of the south porch and the east battlements of the lady chapel (Ashwell, n.d. *Chronicle*, i). Supplies became difficult in c. 1970, because most of the quarry production went to London; the last use at Gloucester was in 1971.

Lepine

A fine white oolitic limestone with occasional dark shell fragments from the Lépine Quarry at Lavoux near Poitiers in France. It is known as Lavoux à grain and exported as Lépine.⁸² It is from the Callovien (Oxfordian) stage of the Jurassic and therefore the youngest, excepting the tufa, of the main rock types used at Gloucester. It has been used for all repairs since 1970-1;⁸³ its first use was on the south parapet of the lady chapel. Its future use is now being discussed. Older stones are now showing differential weathering, with mud nodules showing.

Discussion

The stone described by Ashwell as ‘Avening’ and identified by Alan Norton, Clerk of Works, is now known to be Bath (brown) or weathered Painswick (cream-white with wisps of shell debris showing). Ashwell had documentary evidence no longer available, but at least one stone merchant in Avening was selling ‘Painswick stone’ which was not Painswick.⁸⁴

After the fashion for Bath stone, and Waller’s return to local stone, Painswick was supplied from Plantation Quarry (and/or Frith Quarry), and a lesser amount from Catsbrain Quarry. Weatherstone came from Crane Quarry (for a time called Windmill Quarry). Little repair work was done between 1930 and 1950, only one mason was retained⁸⁵ and only second-hand stone from demolished buildings was used. The difficulties of obtaining good Painswick and Minchinhampton stone from local quarries became more acute as restoration restarted, as one by one they closed. This first forced the Dean and Chapter to open their own quarry, then to use Clipsham and later French Lepine. The supply from local quarries is today less than ever, and the stone sources are now often under protected landscapes (Ashwell, n.d. *Chronicle*, i).

81 B Ashwell, ‘Architects Report 1962-63’ *FCGAR* no 27 (1963), 14

82 D B Honeybourne, *The Building Limestones of France* Building Research Establishment Report, Department of the Environment, HMSO (1982), 96

83 B Ashwell, ‘Architects Report 1970-72’, *FGCAR* no 36, (1972), 9

84 Dr David Jefferson points out (in litt) that Howe in 1910 described a Painswick stone ‘from the Painswick Quarry, Avening, near Stroud, Gloucester’ J A Howe, *The geology of building stones* (London 1910), 217. However, Howe was probably misled. In the 1880s to 1904 a stone merchant called Esther Tuffley was selling ‘Painswick stone’ from an address in Avening, but the actual stone concerned was Lower Freestone from Ball’s Green (GRO P29 CW 2/2).

85 GILib 15.452, Newspaper cutting from *Gloucester Chronicle*, 30 August 1952

VIII RESEARCH AND FURTHER WORK

Introduction

The main purpose of the Dean and Chapter as the managing body of the cathedral is to promote Christian worship and mission. Yet as custodians of so many ancient buildings (themselves an aid to mission) the Dean and Chapter has regard to its responsibilities in supporting knowledge and understanding of these buildings and of the buried evidence of the past.

The most important factor in this knowledge and understanding is access to basic data and to past records. This assessment aims to indicate the location of such data and to summarise it, but much further work is needed. Some of this work might be undertaken as part of the cathedral's Inventory, by sub-contractors. Some survey projects are also strongly recommended as of use to the compilation of the forthcoming Conservation Plan.

The list of future projects is divided into three:

- 1 Projects concerned with the collection of basic data
- 2 Survey projects
- 3 Possible research projects

1 Data collection

1. The cathedral inventory, which is in progress, will be the most important listing of the objects of importance held by the Dean and Chapter.
2. The inventory will include the various paintings and prints owned by the Dean and Chapter, which are on display in the Laud Room and Henry Room.
3. The inventory of worked stone needs to be completed by including the collections in the Tribune gallery. This should include items in the exhibition which are 'stone' only by imitation. In addition, the whole inventory needs to be brought up to the standards suggested by CFCE.⁸⁶
4. There is now an index to 19th century editions of *The Builder*. A print-out for Gloucester entries and copies of all these would be valuable.

2 Survey

1. A contour plan of the cathedral precinct with contours at 0.5m intervals would have many uses; as an indication of past now buried monuments; as an aid to drainage projects; as basic information for landscaping projects, etc.
2. A survey, using documentary and map evidence, augmented perhaps by geophysical and other survey, of all services including gas, water, electricity, cable. This, like the previous item, would have many uses.
3. A survey of decorative paintings in the cathedral. A similar survey at Worcester cathedral by the Courtauld Institute added many items to the known painting evident in Worcester cathedral, and heightened awareness of conservation problems.
4. A comprehensive list of pictorial material held nation-wide concerning the cathedral and its precinct might produce new historical information.

3 Research

1. Rochelle Rowell, for a DPhil at the University of York, has carried out a study of high-status monastic guest buildings which includes a detailed study of 'The Parliament Room' and some study of 'Church House' and St Mary's gate (Rowell 2000).
2. There is extensive potential for similar research into all the buildings in the Close. Dulverton House and Little Cloister House are of particular importance. A preliminary assessment of all the buildings in the precinct is to be found in Morriss 2001.
3. Schemes of study could be formulated following various themes: such as low-status guest buildings, vernacular architecture in various centuries, and incorporating various methods including

86 Cathedrals Fabric Commission for England: Advisory note 2: *Cathedral Inventories: Recording Worked Stones* (October 2001).

dendrochronology.⁸⁷

4. Those researching the structural histories of buildings need to be aware of the importance of the documentary evidence. This is summarized above (section V).
5. The documentary evidence would be enhanced by a full list of housing in the precinct and their tenants, extending Eward's list (1985, Appendix D) through the 18th and 19th centuries.
6. A study of masons' marks carefully relating the marks to fabric of known date and taking into account the re-use of stone.
7. An analysis, using photogrammetric drawings, of the stone types and the re-use of stone, especially Roman stone; this would contribute greatly to knowledge of the original building of the abbey church. Work on the re-use of stone is currently being carried out by Stephen Bagshaw and Arthur Price.
8. Comparative studies of architectural mouldings. These provide important evidence of dating and comparison between important buildings. Moulding profiles should therefore be regarded as part of the documentary evidence and kept with notes of their location. At present selected profiles of key details of architecture are taken on the advice of Richard K Morris.
9. A survey of surviving timber roofs allied with dendrochronological study (see above, roofs, p 45)
10. There are many areas of the cathedral church where a structural history of particular aspects could be carried out: for instance, a structural history of the lady chapel (see above, lady chapel, p 40); or a structural history of the west end of the church (see above, p 33)

⁸⁷ For dendrochronology see English Heritage, *Dendrochronology: Guidelines on producing and interpreting dendrochronological dates* [nd ?1997]

IX ARCHAEOLOGICAL POTENTIAL

1: BURIED ARCHAEOLOGY

There are archaeological deposits of national importance everywhere in the Cathedral precinct, and the whole area of study has archaeological potential.

Roman (Fig 5)

It would be of very great importance to know more about the topography of the late Roman town and the way in which this influenced the foundation of the abbey in 679x81. In addition the nature of the area outside the Roman wall, and the question of whether there was ever a defended or walled area in this sector near the river, are all topographical questions which have never been answered. Thus all the Roman deposits in the study area are of both regional and national importance since they would throw light on the transition from late Roman to Anglo-Saxon, as well as being significant for Roman studies in themselves.

The known archaeology includes the Roman city wall (which would have included interval towers, not shown in the figure), the intervallum road, and buildings with mosaics in the north quadrant of the Roman town. There would be a ditch several metres wide surrounding the wall. The area outside the Roman wall, but still inside the precinct, probably also included Roman buildings, but nothing is known of these. Very little is known of the depth of these assumed deposits: such depths as can be marked (see Fig 5) are few and reflect the natural slope of the ground as well as the build-up of deposits. In general, Roman deposits are at about 2m below present ground level. (The exceptionally low level of record 49 is related to the very base of the foundations of the Roman city wall.)

Anglo-Saxon (Fig 6)

Anglo-Saxon deposits have never been located, and even their depth is an unknown quantity.

Medieval (Fig 8)

The location of medieval buildings is better known, as explained above (section IV); many, even if demolished, are not deeply buried, and their extensive archaeological potential is unexplored.

Post-medieval

Post-medieval structures are mostly still extant, with the exception of a few buildings (see above, p 23) and more easily obscured items such as garden walls and other garden features, water systems, pipe lines, and brick or stone burial vaults. The demolished buildings are shown as potential archaeological sites in Fig 10, but the more minor features are unpredictable, as even documentary evidence does not give precise locations.

Deposit depths (Fig 10)

With all areas in the precinct potentially of archaeological importance, a crucial factor in any planning and policy decisions is the depth of these deposits. Figure 10 identifies zones which are based on the proximity of deposits (whether of medieval or post-medieval date) to the surface. The zoning is related both to below ground survivals and to surviving buildings: all the standing buildings shown incorporate structures of medieval or post-medieval date. Within a standing building there are also likely to be buried archaeological levels within the footprint of the building. The 19th-century bishops palace, now the King's School, for instance, stands on the site of the medieval palace and probably incorporates part of it; the footprint of the older building extended around the present structure and remains have been shown to survive below ground (36). (Note that planning control here is the province of Gloucester City Council.)

Zone 1: In this area, up to 1.3m of topsoil probably covers the latest archaeological deposits, which are likely to be post-medieval - and some medieval - structures relating to gardens and cultivation.

Zone 2: This comprises two areas: 1 The area of the western part of College Green: any archaeological deposits here are under 0.7m of topsoil. There is as yet no known record of burials in this area, and it was an open space in the medieval period. Deposits encountered in the past have been building construction deposits rather than structures. 2 To the north of the lady chapel, no burials have been recorded, and no deposits (other than topsoil) shallower than about 1m; medieval burials may exist however and more evaluation of this area is probably needed.

Zone 3: In this area there is usually about 0.3m of topsoil or of post-medieval deposits such as gravel paths. The zone includes the various burial grounds. Burials south of the cathedral can be as shallow as 0.3m depth.

The cloister garth, under 0.7m of topsoil, has buried building construction deposits, possibly buried water features, and many wall-monuments of post-medieval date in the topsoil; these monuments were broken up and buried here in 19th-century clearances.

The line of the principal abbey culvert, the Fulbrook stream, is known and has been indicated as part of this zone. Its depth depends on the area concerned: in the east part of the precinct (within Zone 1) it is covered with at least 0.7m of topsoil; in the west part of the precinct the depth is much less.

Zone 4: This is an area of high archaeological sensitivity. Archaeological deposits of significance may be just below the surface. The courtyard east of Church House is particularly sensitive. The two small peices of land on St Johns lane are indicated as sensitive because they may include remnants of the medieval abbey wall, or even post-medieval buildings. The line of the abbey wall is of high sensitivity, and an area of 0.3m on either side of the wall-line should also be regarded as highly sensitive.

2: HISTORIC BUILDINGS

The potential of the archaeology of the cathedral church can be partly assessed, but that of the historic buildings in the close, though known to be high in general, is in need of detailed assesment. All the listed buildings have high potential for historical research and for recording: for preliminary surveys see now Morriss 2001. Buildings of medieval origin (Fig 8) are exceptionally complex, having a long history incorporating both medieval and post medieval elements. Information about each property will be found in the database, accessed by Fig 8 and Fig 2. All the buildings in the precinct have a significant landscape value.

X RECOMMENDATIONS

Introduction

In accordance with national policy, a presumption in favour of preservation of historic fabric or buried remains is already in operation.

The new cathedrals legislation⁸⁸ presents a procedural difference between historic standing fabric and buried remains, although the principle of preservation is the same in both cases. Proposals where works ‘materially affect’ buried archaeology have to be submitted to CFCE. The definition of what is ‘materially affected’ is not always easy. Careful assessment for each proposal is always needed.

Buried remains

In some areas the cumulative effect of minor works such as services is a cause for concern as these can have a cumulative destructive effect. These areas are included under Zone 4 on Fig 10: in particular the courtyard east of Church House is sensitive but has been much disturbed by services in the past.. Consideration should be given in this area in future to carrying out all excavations archaeologically.

At Gloucester cathedral, all projects receive a prior appraisal from the consultant archaeologist and most then receive a prior assessment to establish what historical remains if any might be disturbed. Occasionally an evaluation (trial excavation) is required to establish this.

If there are remains which will be ‘materially affected’ by the proposal, the preferred option is always preservation. If this is not possible, a mitigation strategy is proposed. This may take the form of an archaeological watching brief, or require an archaeological excavation to record remains before the proposal is carried out.

In Zones 1-2, proposals which affect the upper 0.5m of levels would usually be deemed to not ‘materially affect’ the buried deposits and can most suitably be protected by record, by the carrying out of an archaeological watching brief; application to CFCE would not normally be required.

In Zone 3, proposals which affect the upper 0.3m of levels, would usually not ‘materially affect’ the buried deposits and can most suitably be protected by record, by the carrying out of an archaeological watching brief; application to CFCE would not normally be required.

In Zone 4, any proposal which involves ground disturbance could be said to potentially ‘materially affect’ the archaeology of the church or precinct, and such disturbance, if unavoidable, should be carried out as an archaeological excavation, except in the case of re-excavation of service trenches. The project proposal for such excavation will need to be agreed in advance and approved by CFCE.

In the case of scheduled monuments the relevant Scheduled Monument Consent would also be required.

Buildings

An understanding of the historic fabric is an essential prerequisite to repair and conservation of the many historic buildings in the cathedral precinct. To further this understanding, assessments of the historic fabric are carried out in the same way as for buried archaeology.

It is further acknowledged that it is important to make adequate records of historic fabric which is to be altered or demolished.

At Gloucester, fabric records consist of working drawings. The creation of a final archive of publishable record drawings, perhaps generated on the same CAD programme as the photogrammetry, needs to be implemented. These records should be maintained in the cathedral archive for the future use of architects and historians.⁸⁹ The fabric records should include material currently stored in the Clerk of Works office.

In the case of Listed Buildings, copies of listed building applications need to be submitted to CFCE.

Survey

The photogrammetric survey of the cathedral church has been an invaluable aid to conservation and

⁸⁸ summarized in Guidelines published by CFCE: *Guidance note 5: Cathedrals and Archaeology: A Guide to Good Management* (1994)

⁸⁹ English Heritage and the Cathedrals Fabric Commission for England *Cathedral Fabric Records: A report of the joint Working Group on record and recording of Cathedral fabric* (London), 13.



repair planning. However, the survey did not include internal elevations. Such elevations would (a) provide immensely extended understanding of the building, and (b) provide valuable information for conservation/restoration in the case of fire or similar disaster.

An ultimate aim should be that all historic buildings in the cathedral's care should be recorded in elevation and plan, for the same reasons. Until 2001 no accurate plan even of the cathedral church existed: however in that year a survey of the Cathedral church plan on three levels was made by CSL, Worcester.

An accurate ground plan of the whole Cathedral precinct would be a valuable tool for future management.

To improve overall management of the historic resource, a further aim should be to incorporate the whole of the photogrammetric survey and plans into a 3D grid covering the whole precinct.

Disaster management

Disaster management should include setting up in readiness an archaeological programme to deal with recording and clearance of debris; this enables disaster causes to be fully investigated, and provides invaluable evidence for the restoration programme.

King's School

The buildings owned by King's School are of considerable archaeological potential. Though not in Dean and Chapter ownership, King's School would benefit from fuller archaeological assessment and as a beginning should receive a copy of this report.

Similarly the buildings managed by King's School but in Dean and Chapter ownership should be more closely integrated into the repair philosophy of the precinct as a whole.

Scheduled Monuments

The imposition of the control by CFCE under the Care of Cathedrals Measure means that monuments within the precinct are under control both of the Measure and of Scheduling. For Gloucester Cathedral precinct this applies to: the little cloister, the infirmary arches, and St Mary's gate. In each case the scheduling applies to only one part of a building, whether still standing (as in the case of St Mary's gate) or buried (as in the case of the infirmary arches). The little cloister is not of greater importance than the house, Little Cloister House, next to it on the west (137, 138). The scheduled part of St Mary's gate is part of the same building as that on the south, which is not scheduled. This fragmentation emphasises some elements of the buildings at the expense of others, and discourages the much more informative process of researching the building as a whole. There are strong reasons therefore for suggesting that the little cloister, the infirmary arches, and St Mary's gate, be de-scheduled.

Maintaining the database

This data base and map need to be maintained and updated as work proceeds and there should be frequent exchange of information with UAD. Future versions of maps and data will be generated by computer mapping systems, making it simple to update information. The digitisation of the 19th century map sources will also be a valuable tool for gaining information, especially about post-medieval buildings: the 1851 Board of Health map, which predates many major changes in the precinct, would be the best for this purpose.

Augmenting archaeological data

The data collection projects listed in section VIII should be implemented as and when feasible.

XI SUMMARY

This assessment has drawn together a wide variety of different sources relating to Gloucester Cathedral and its precinct. The information has been assembled in a database which is compatible with Gloucester UAD. The medieval base map (Fig 8) is the most important of the maps to be compiled as it includes all known information on medieval buildings and monuments, and plots them accurately at a scale of 1:500.

This assessment should make it possible to consider the archaeological and historical implications of any proposal in the close by directing the inquirer to past archaeological interventions or to documentary evidence for any area in question. Although in many cases more detailed background research will be needed, this survey provides a starting-point, and for small projects may provide all the information needed.

The cataloguing of architects papers is still in progress, as also is the completion of the Inventory. It is likely that a great deal of information will come to light in the next few years, even the next few months, and in respect of the documentation of the historical resource, this report will rapidly become out of date.

It is to be hoped that this Assessment can provide the basic historical and archaeological framework for the Conservation Plan, which in turn should provide a policy framework for future development and maintenance of this important historical area.

XII ABBREVIATIONS AND BIBLIOGRAPHY

ABBREVIATIONS

<i>Antiq Journ</i>	<i>Antiquaries Journal</i>
<i>Archaeol Journ</i>	<i>Archaeological Journal</i>
Austen Suppl	[Items collected supplement to Austen 1928 catalogue: Gloucester Local History Library]
Austen	R Austen, <i>Catalogue of the Gloucestershire Collection</i> , Gloucester Library (1928)
BAA	British Archaeological Association
BGAS	Bristol and Gloucestershire Archaeological Society
BoH 1851	<i>Ten feet and two feet plans of Gloucester surveyed by the Ordnance Survey Department under the provisions of the Public Health Act</i>
CAB	Chapter Act Book, Gloucester Cathedral Library
Causton	A Causton <i>Map of the City and Borough of Gloucester</i> (1843)
CFCE	Cathedrals Fabric Commission for England
CWB	Clerk of Works Day books, volumes in Cathedral Library
D of E List	Department of the Environment: List of Buildings of Special Architectural or Historic Interest
DCMS 1998	Department of Culture, Media and Sport <i>Revised List of Buildings of Special Architectural or Historic Interest: City of Gloucester</i>
DoE	Department of the Environment
EH	English Heritage
FAC	Fabric Advisory Committee of Gloucester Cathedral
<i>FGCAR</i>	<i>Friends of Gloucester Cathedral Annual Reports</i>
GCAD	Gloucester Cathedral Archive Drawings [list in Comely 1998, p 25, section I/J; other copies subsequently undated; in Cathedral library]
GCAR	Gloucester Cathedral Archaeological Reports, 3 vols, 1984-1998 unpublished MS reports held by the Consultant Archaeologist, with copies in the Cathedral Library.
GCL	Gloucester Cathedral Library
<i>Gents Mag</i>	<i>Gentlemen's Magazine</i>
<i>Glevum</i>	L E W O Fullbrook-Leggatt, <i>Glevum</i> (1968)
GILib	Gloucester City Library, local history room
GRO	Gloucestershire Record Office
Hall and Pinnell	R Hall and T Pinnell, 1796 <i>Plan of the City of Gloucester</i>
Hart	see Bibliography
NADFA	National Association of Decorative and Fine Arts
OAA	Overall Archaeological Assessment
OD	Ordnance Datum
Oliver	['Oliver's Survey' – a survey of the properties of the Dean and Chapter in the mid 17th century, copied out in the mid 18th century] GRO D936/E/1
OS	Ordnance Survey
SAM	Scheduled Ancient Monument (as listed by English Heritage, 1987)
SAM list	English Heritage. Schedule of Ancient Monuments. County List 1987.
Stevenson, <i>Calendar</i>	W H Stevenson 1893 <i>Calendar of the Records of the Corporation of Gloucester</i>
Stevenson, <i>Rental</i>	W H Stevenson 1890 (ed) <i>Rental of All the Houses in Gloucester AD 1455</i> (Gloucester)
<i>TBGAS</i>	<i>Transactions of the Bristol and Gloucestershire Archaeological Society</i>
VCH iv	<i>Victoria County History of Gloucestershire</i> , vol iv ed. N Herbert (1988)
WRO	Worcestershire Record Office

BIBLIOGRAPHY

This bibliography aims to include all works on the art, archaeology and architecture of Gloucester Cathedral, but not all historical works. Works cited in full in the footnotes are not included here. This bibliography is also the source file for database entries.

- Anon [c. 1920] Souvenir of Gloucester Cathedral [photographs]
 Anon 1798 'The pursuits of architectural innovation: Gloucester Cathedral' *Gent Mag* lxxviii, 926-7
 Anon 1834 'Gloucester Cathedral' *Saturday Magazine* Feb 22 1834, no 105, 66-7.
 Anon 1841 'Gloucester Cathedral' *Church of England Magazine* xi, 321, Dec 31, 1841, 425-428 [GILib Austen 3456].
 Anon 1846 'An Account of Gloucester Cathedral' *The Builder* iv, 386-7.
 Anon 1856 'The improvements [in the crypt] at Gloucester Cathedral' *The Builder*, Nov. 15, p 603, 622-3.
 Anon 1856b 'Gloucester Cathedral' *The Illustrated London News* Sept 13 1856, p 276, col 1.
 Anon 1858 'Gloucester Cathedral' [restoration of chapter house] *Gentleman's Magazine* NS v, 1858, 511-12.
 Anon 1866 'Gloucester Cathedral and its Restoration' *The Ecclesiologist* NS xxvii, 99-103.
 Anon 1871 'The restoration of the Cathedral' *Gloucester Journal* 26 August 1871.
 Anon 1873 '[The new] Reredos in Gloucester Cathedral' *Illustrated London News*, June 7 1873, p 545
 Anon 1875 [A collection of cuttings from *The Builder*] [GILib Austen 3485]
 Anon 1893 'The Lady Chapel of Gloucester Cathedral and its proposed restoration' *The Antiquary* xxvii, 57-8
 Anon 1903 'Proceedings at the Annual Spring Meeting: Gloucester: the Cathedral' *TBGAS* xxvi, 38-41.
 Ashwell, B J (n.d.) *The Cathedral Church of St Peter and the Holy and Indivisible Trinity at Gloucester: Chronicle of the works of repair begun AD 1953* (t/s, 2 volumes)
 Ashwell, B J 1975 'A short guide to the Crypt' [GRO GEC 42]
 Ashwell B J 1983 'Gloucester Cathedral – southern tower piers' T/S GRO GEC56
 Ashwell, B J 1985a 'Gloucester Cathedral; the south transept; a 14th century conservation project' *Antiq Journ* lxxv, 112-120.
 Ashwell, B J 1985b *The Cathedral Church...of Gloucester. First Quinquennial Report to 31 July 1985* [GCL]
 BAA 1846 *Transactions of the British Archaeological Association at its 3rd Annual Congress held at Gloucester 1846* (London 1848)
 BAA 1985 *Medieval Art and Architecture at Gloucester and Tewkesbury*
 Baddeley, St Clair 1915 'Early deeds relating to St Peter's Abbey' *TBGAS* xxxvii, 221-34
 Baddeley, St Clair 1918 'Fresh material evidence relating to Norman Gloucester: confirmation of grants to St Peter's Abbey 1114' *TBGAS* xli, 87-92.
 Bagshaw, S 2001 *The south clerestory of the nave of Gloucester Cathedral: archaeological recording in 2001* (Gloucester Cathedral Archaeological Report 2001F)
 Bagshaw, S, Heighway, C and Price, 'The South Porch of Gloucester Cathedral: a Study of 19th century Stone Repair Types', JBAA forthcoming
 Bailey, A 1970 'The Library of Gloucester Cathedral' *Gloucester Historical Studies* iv, 16-20.
 Bates, D 1984 'The building of a great church: the Abbey of St Peter's, Gloucester, and its early Norman benefactors' *TBGAS* cii, 129-132.
 Bazeley, W 1897 'Notes on the Early English Lady Chapel AD 1224' *Records of Gloucester Cathedral* iii (1885-97), 12-16
 Bazeley, W and M 1904 'The effigies of Gloucester Cathedral' *TBGAS* xxvii, 289-326
 Bazeley, W 1888-9 'The early days of the Abbey of St Peter, Gloucester' *TBGAS* xiii, 1888-9, 155-161
 Bazeley, W 1892 'Notes on the Early English Lady Chapel, AD 1224' *TBGAS* xvi (1891-2), 196-200
 Bloxham, H M 1889 'Gloucester: the Cathedral Monuments' *TBGAS* xiii (1888-9), 252-259

- Bonnor, T 1796 *Perspective itinerary of England: Part 1* (London)
- Borg, A 1985 'The Gloucester Candlestick', in BAA 1985, 84-92
- Bradbury O 2000 'Overlooked aspects of the 18th-century Bishop's Palace at Gloucester' *TBGAS* 118, 157-172
- Britton, J 1829 *The History and Antiquities of the Abbey and Cathedral Church of Gloucester* (London) [Plates by H. Ansted, W. H. Bartlett and J. Carter]
- Brooke, C N L 1964 'St Peter of Gloucester and St Cadoc of Llancarfan' in N K Chadwick (ed) *Celt and Saxon: Studies in the Early British Border* (Cambridge), 258-322
- Brown, Sarah 2001 'The East Window of Gloucester Cathedral: A Landmark in English Stained Glass Design' *FGCAR* 65, 24-27
- Caig, J 1984 'Visitors' Guide to stained glass in Gloucester Cathedral' (Ten Bells Press)
- Carne, B 1995 'Thomas Fulljames, 1808-74: Surveyor, Architect, and Civil Engineer' *TBGAS* cxiii, 7-20
- Carter, J and Basire, J 1807 *Plans, Elevations Sections and Specimens of the Architecture of the Cathedral Church of Gloucester* (Society of Antiquaries, London) [Austen 3439: the 2nd title page says 1809]
- Cave, C J P 1931 'The roof bosses in Gloucester Cathedral' *TBGAS* liii, 99-112
- Chandler, P E 1979 'The Bishop's Palace, Gloucester' *TBGAS* xcvi, 81-3
- Clark, O W 1905 'The Misereres in Gloucester Cathedral' *TBGAS* xxviii, 61-85
- Claxson, B S 1846 'Heraldic Notices of Gloucester Cathedral previous to the Reformation' in BAA 1846, 200-217
- Cocke, T H 1981 'William Kemp and Gloucester Cathedral' *Country Life* no 170, 4002
- Cocke, T H 1985 'Bishop Benson and his Restoration of Gloucester Cathedral 1735-1752' in BAA 1985, 130-132
- Cockerell, C R 1851 'The Sculptures of Gloucester Cathedral', in *Iconography of the West Front of Wells Cathedral* (Oxford and London), 92-4
- Comely B 1998 *Cathedral Church of St Peter and Indivisible Trinity of Gloucester: Quinquennial Report* (t/s)
- Cooke J 1789 'An account of the discovery of the corpse of one of the Abbots of Gloucester' *Archaeologia* ix, 10-13.
- Cresy, E 1848 'An account of the Abbey Church at Gloucester' *Trans Brit Archaeol Assoc 3rd Annual Congress held at Gloucester 1846*, 245-302 [an interpretative account; p 250 crypt and nave Saxon, p 251, geometric basis of crypt layout pp 264-72 other Norman churches, which are described as Saxon]
- Dancey C H 1911 'Ancient Painted Glass in Gloucester Cathedral' *TBGAS* xxxiv 97-109
- Davies G M 1972 'The Structure in the North Transept' ms [GILib]
- Davies G M 1976 'The Archway under the Lady Chapel' ms [GILib NR 4.43]
- Drayton, T D G 1915 'Notes on the Heraldry of the East Window of Gloucester Cathedral' *TBGAS* xxxviii, 69-97
- Dugdale, W 1849 *Monasticon Anglicanum*, ed. J. Caley, H Ellis, and B Bandinel, i, 'Gloucester', 531-566
- Evans S J A and Eward S M 'The Common Kitchen' *TBGAS* xci (1972) 168-174
- Eward, S 1972 *Catalogue of Gloucester Cathedral Library* (Gloucester)
- Eward, S 1985 *No Fine but a Glass of Wine - Cathedral Life at Gloucester in Stuart Times* (Salisbury)
- Fern, S 1983 'Discoveries in the Crypt at Gloucester Cathedral' *Glevensis* xvii, 36-7
- Finberg, H P R 1972a 'Princes of the Hwicce' in *Early Charters of the West Midlands* (Leicester)
- Finberg, H P R 1972b 'The Early History of Gloucester Abbey', in *Early Charters of the West Midlands* (Leicester)
- Freeman, E A 1860 'History of Gloucester Cathedral' *Gents Mag* 1860, NS ix, 270-278
- Freeman, E A 1884 'Gloucester and its abbey' *Records of Gloucester Cathedral* ii (1883-4), 79-155
- Fullbrook-Leggatt, L E W O 1968b 'The Water Supplies of the Abbey of St Peter and the Priory of the Greyfriars, Gloucester' *TBGAS* lxxxvii, 111-118
- Gambier-Parry T 1883 'The Builders and Buildings of the Cathedral' *Records of Gloucester Cathedral* i (1882-3), 38-58

- Gambier-Parry T 1884 'Ancient Glass Paintings in the Cathedral' *Records of Gloucester Cathedral* ii (1883-4), 67-75
- Garrod A P and Heighway C M 1981 'Gloucester Cathedral 1980' *Glevensis* xv, 44-5.
- Garrod A P and Heighway C M 1984 *Garrods Gloucester: Archaeological Observations 1974-81* (Bristol)
- Gee, H 1921 'Presidential Address [concerning Gloucester Cathedral]' *TBGAS* xliii, 37-56
- Godwin G 1844 'Two letters from George Godwin..on certain marks discoverable on the stones of various buildings erected in the Middle Ages' *Archaeologia* xxx, 113-19 and Plate VI
- Greene, B 'The Godwins of Hereford' *Journal of Tiles and Architectural Ceramics Society* i, 1982, 8-16
- Grimké-Drayton, see Drayton
- Guise, W V 1883 'Historic monuments in the Cathedral' *Records of Gloucester Cathedral* i (1882-3), 97-106
- Haines, H 1863 'The Deanery, Gloucester' *Gents Mag* ns xiv, 767-9
- Haines, H 1867 *A Guide to the Cathedral Church at Gloucester* (1st edition: Gloucester)
- Haines, H and Waller F S 1884 *A Guide to the Cathedral Church of Gloucester* (Third edition revised and corrected by Waller: Gloucester)
- Hardwick J [artist] 1825 [8 plates relating to] *Gloucester Cathedral* (Sherwood, Neely and Jones) [GILib, Austen Suppl 2179, NR 4.26]
- Hare, M 1992 *The Two Anglo-Saxon Minsters of Gloucester* (Deerhurst Lecture 1992)
- Hare M 1993 'The Chronicle of Gregory of Caerwent: a preliminary account' *Glevensis* xxvii, 42-4
- Hare, M. 2002 'Gloucester Abbey, the First Crusade and Robert Curthose' *FGCAR* 66, 13-17.
- Hart, W H (ed.) *Historia et Cartularium Monasterii Scti Petri Gloucestriae* Rolls Series 33, vols i (1863), ii (1865), iii (1867)
- Hastings J M 1946 'The Tomb of Edward II at Gloucester' *Architectural Review* April 1946, no 98, 212-4
- Hearne, T. 1744 *The Itinerary of John Leland the Antiquary: vol iv* (2nd edition, Oxford).
- Heighway C and Brownsword R 1988 'A medieval miniature bucket from Little Cloister House, Gloucester' *TBGAS* cvi, 190-1
- Heighway C M 1988 'Archaeology in the Precinct of Gloucester Cathedral' *Glevensis* xxii, 29-37
- Heighway C M 1993 'Excavations and Observations of the Late Medieval Reredos in Gloucester Cathedral' *Glevensis* xxvii, 21-25
- Heighway C M 1994 'Archaeology at Gloucester Cathedral 1993' *Friends of Gloucester Cathedral Annual Report 1994*, 18-19
- Heighway C M 1996 'A graffito in the crypt of Gloucester cathedral', *Glevensis* xxix, 33-4
- Heighway, C. M. 2002 *Gloucester Cathedral South Aisle: an archaeological assessment* (report to Chapter of Gloucester, GCL)
- Heighway C M and Mychalysin, P 1999 'Masons' marks in Gloucester Cathedral Tower' *TBGAS* 117, 183-212
- Heighway C M 2000 'A medieval water tank in the cloister garth, Gloucester Cathedral' *TBGAS* 118, 190-200
- Herbert, N 1988 'Gloucester Cathedral and the Close' in *VCH Gloucs* 4, 275-88.
- Hewett, C A 1985 *English Cathedral and Monastic Carpentry* (Chichester)
- Heyman, J 1994 'Gloucester Cathedral: The fourteenth-century choir vault' [copy of paper published in Italy: CBC 1994]
- Hope, W H St John 1897 'Notes on the Benedictine Abbey of St Peter at Gloucester', *Records of Gloucester Cathedral* iii (1885-97), 90-131 [also published in *Antiq Journ* (1897)].
- Howitt G A 1890 'The Effigy of King Edward II in Gloucester Cathedral' *Gloucestershire Notes and Queries* iv, 553-5
- Jew, T 1839 *History of Gloucester Cathedral* (Gloucester, Thomas Jew)
- Kellock, A 1989 'Abbot Sebrok's Pavement: a medieval tile floor in Gloucester Cathedral' *TBGAS* cvii, 171-188.
- Kerr, J 1985 'The East Window of Gloucester Cathedral' in *BAA* 1985, 116-129

- Kirby, I M 1967 *A Catalogue of the Records of the Dean and Chapter including the former St Peters Abbey* (Gloucester)
- Le Couteur J O 1915 *Note on the Stained glass of Gloucester Cathedral Lady Chapel Ex Libris Sydney Pitcher* 1915. [MS Austen Suppl 2203]
- Luxford, J 2002 'Art and ideology on the Eve of the Reformation: the Monument of Osric and the Benedictines of Gloucester' *TBGAS* 120, 177-212
- Lysons, S 1804 *A collection of Gloucestershire Antiquities* (London)
- Mansell, A [1861] *Views of Gloucester* (A Mansell, Gloucester; republished in *Views of Gloucester*, Rock and Co, London)
- Martin G 1993 'Guide to some memorials and monuments in Gloucester Cathedral' TS [GILib N4.158]
- Martin G 1994 'Gloucester Cathedral monument location list' [GILib NR 4.68]
- Masse, H J L J 1898 *The Cathedral Church of Gloucester* (London: Bells Guide)
- McAleer, J P 1986 'Some Re-used Romanesque material in the Choir Tribune at Gloucester Cathedral' *TBGAS* civ, 157- 174
- Moore J P 1877 'A short account of Gloucester cathedral with illustrations' [GRO GEC 25]
- Morley, E 1910 ['Measured drawings of Cloister and Lavatorium at Gloucester Cathedral'] *Building News* no 2894, June 24, 1910
- Morris, R K 1985 'Ballflower work in Gloucester and its vicinity', in BAA 1985, 99-115
- Morriss R K 2001 *Gloucester Cathedral: Rapid Building Survey of the Cathedral Precincts* (December 2001 Mercian Heritage Series no 146)
- Mychalysin P 1998 'Survey of the Great East Window' TS
- Niblett J and Bazeley W 'Royal Badges in Gloucester Cathedral' *Records of Gloucester Cathedral* (1882-97), 112-8
- Niblett J T D 1866 'Heraldry of Gloucester Cathedral' [MS: NR14, 17: Austen 3490]
- Nott, J 1899 'The great east window of Gloucester cathedral' Stray notes. *Transactions of the Woolhope Club* 1898-99, 56-7
- O'Neil, H 1965 'Excavations in the King's School Gardens, Gloucester, 1964' *TBGAS* lxxxiv, 15-27
- Ormerod, G 1842 'Account of some ancient remains in the District...of the Wye and Severn [the leaden fonts of Lancaut and Tidenham]' *Archaeologia* xxix, 19-24
- Oswald, A 1951 'The Old Deanery' *Country Life* April 13, 1102-6
- Oswald, A 1962 'Medieval survivals at Gloucester: The Parliament Room and Henry Room', *Country Life* Dec 6, 1421-5
- Payne M T W and Payne J E 1994 'The Wall Inscriptions of Gloucester Cathedral Chapter House and the de Chaworths of Kempsford' *TBGAS* cxii, 87-104
- Porter, A S 1890 Some notes on ancient encaustic tiles *Arch Journ* 311-13
- 'Quondam Glevensis' 1887 'The parochial status of the college precincts' *Glos Notes and Queries* iii, 1887, 549-51
- Rhodes J (ed) 2000 'Observations in College Street Gloucester 1893' by F W Waller, *Glevensis* 33, 30
- Rickerby, S 2000 'Little Cloister House Ceiling Fragments, Gloucester Cathedral: Conservation Proposals'
- Roberts J 1805 'Historical Account of the Cathedral of St Peters' Gloucester' (Gloucester)
- Robertson, D 1974 *The King's School Gloucester* (London and Chichester).
- Ross J 1806 *Ecclesiastical and Monumental Antiquities of Gloucester and of Tewkesbury Abbey* [water colours: bound volume: Austen Suppl 2178]
- Rouse E C and Varty K 1976 'Medieval paintings of Reynard the Fox in Gloucester Cathedral and some related examples', *Archaeol Journ* cxxxiii, 104-117
- Rowell, R L 2000 *The archaeology of late monastic hospitality* D Phil Thesis, University of York, Dept of Archaeology, September 2000
- Rushforth, C McN 1921 'The Glass of the East Window of the Lady Chapel in Gloucester Cathedral.' *TBGAS* xliii, 191-218.
- Rushforth, C McN 1922 'The Great east window of Gloucester Cathedral' *TBGAS* xliv 293-304
- Ryder, P 1990 'Monument Protection Programme: Cathedral Close Reports: Gloucester' Report compiled for English Heritage Monument Protection Programme (t/s)

- Sampson J 1997 'Gloucester Cathedral: The south nave aisle: the figure sculpture' (t/s)
- Sampson J 2000 'Gloucester Cathedral: The sculpture of Abbot Serlo from the south porch' (t/s)
- Sanderson, R W 1999 *Identification of a sample of white limestone from Gloucester Cathedral* report 9903
- Scott, G 1867 'The Cathedral Restoration' *Gloucester Chronicle* no 20 April p 3 cols 4,5
- Seliger, L 2001 'History of repairs to the stained glass in the Great East Window of Gloucester Cathedral' t/s report dated September 2001
- Shaw, H 1858 *Specimens of tile pavements drawn from existing authorities* (London)
- Short, H H D 1948 'Graffiti on the Reredos of the Lady Chapel of Gloucester Cathedral' *TBGAS* lxxvii (1946-8), 21-36.
- Spence H D M 1892 ['Appeal for funds: summary of architects report on Lady Chapel by Messrs Pearson and Waller': GILib (H)G2.48]
- Spence H D M 1894 ['Report on progress since appeal of 1892 and appeal for further funds'; GILib (H) G2.53]
- Spence, H D M 1892 'How I found the remains of Osric King of Northumbria and founder of the abbey' (Chance and Bland)[Austen 3539]
- Spence H D M 1889 [Lecture in Chapter House] *TBGAS* xiii, 45
- Spence-Jones 1912 'A Tour of the Cathedral' *Brit Archaeol Assoc Journ* NS xviii, 115-120
- Spence-Jones H D M 1913 *The Dean's Handbook to Gloucester Cathedral* (London)
- St John Hope - see Hope, St John
- Stevenson WH 1891 'Records of the Dean and Chapter of Gloucester' *Historic Manuscripts Commission: 12th Report*, Appx ix, 397-99.
- Storer J and H S 1816 *The History and Antiquities of the Cathedral Church of Gloster.*
- Stroble, S 1998 *Report on the Condition of the Medieval Stained Glass in the Great East Window of the Cathedral Church.....at Gloucester*
- Structural Testing Services Ltd 1995 'Gloucester Cathedral Nave Reordering: Geophysical Investigation' ref C5319/2/141, July 1995, for Clarke, Nicholls and Marcel.
- Talbot-Rice, D 1952 'The Gloucester Christ' *TBGAS* lxxi, 98-100
- Taylor, C S 1903 'Osric of Gloucester' *TBGAS* xxvi, 308-325.
- Thompson, J C A Jr 1977 *The Norman architecture of Gloucester Cathedral (formerly St Peter's Abbey)* PhD dissertation, John Hopkins University Baltimore, Maryland
- Thurlby, M. 1985 'The elevations of the Romanesque Abbey Churches of St Mary at Tewkesbury and St Peter at Gloucester' in *BAA* 1985, 36-51
- Thurlow, G 1979 'The Tower, Bells and Chimes of Gloucester Cathedral' [24pp GEC 52]
- Tinling E D 1871 [Report on recent restoration by Scott and appeal for funds] [GILib Austen 3497]
- Tristram, E W 1948 'Wall Painting in a building within the Precincts of Gloucester Cathedral' *FGCAR* no 12, 7-8.
- Verey D 1970 'Cathedral' in *The Buildings of England: Gloucestershire: 2: the Vale and the Forest of Dean* (Harmondworth), 198-226
- Verey, D and Welander, D 1979 *Gloucester Cathedral* (Gloucester)
- Waller, F S 1855 [Report by Thomas Fulljames to the Dean and Chapter on the fabric of Gloucester Cathedral; commissioned and carried out in 1855 by Waller] *CAB* 7, 2 July 1863.
- Waller, F S 1856 *General Architectural Description of Gloucester Cathedral* (London).
- Waller F S 1876 'The Crypt of Gloucester Cathedral' *TBGAS* i, 147-152
- Waller F S 1880 *A Guide to the Cathedral Church of Gloucester* 2nd edition; [by Rev Haines, revised by Waller] (Gloucester)
- Waller F S 1882 *Gloucester Cathedral; notes and sketches for visitors*
- Waller F S 1883 'The Norman Architecture of the Cathedral' *Record of Gloucester Cathedral* i, 106-8
- Waller, F S 1884 'The pinnacles of the cathedral tower, Gloucester' *Gloucestershire Notes and Queries* ii, 245-8
- Waller F W 1889 [13th century stone figure of abbot; reservoir in cloister; comment on repairs; lecture report] *TBGAS* xiii (1888-9), 48
- Waller, F S 1890 *Notes and Sketches of Gloucester Cathedral* (Gloucester).
- Waller, F S 1890 'Gloucester Cathedral' *The Builder* 5 December 1890 [check date]

- Waller, F. S. 1891 'Architects Report' [to the dean and Chapter of Gloucester: part of an appeal for restoration funds] (Gloucester Library, Austen 3535, NF 4.13)
- Waller, F W 1911a 'Gloucester Cathedral Tower', *TBGAS* xxxiv, 175-194
- Waller, F W 1911b 'Report of Cathedral Architect' [Gl Lib Austen 3590]
- Webb, J [1829] *An Essay on the Abbey of Gloucester* [written for Britton's *History*, read Society of Antiquaries, April 1829]
- Welander, D 1985 *Stained Glass of Gloucester Cathedral* (Gloucester)
- Welander, D 1991 *The History, Art and Architecture of Gloucester Cathedral* (Gloucester)
- Willis, B 1727 *A Survey of the Cathedrals of York, Durham, Carlisle, Chester, Man, Lichfield, Hereford, Worcester, Gloucester, and Bristol* (London)
- Willis, R 1860 'History of Gloucester Cathedral' *Gents Mag* NS ix 270-8.
- Willis, R 1860 [Architecture of Gloucester Cathedral; report of his lecture] *Archaeol Journ* xvii, 335-42
- Wilson C 1980 'The origins of the perpendicular style and its development to c. 1360', PhD Thesis, Univ. London 1980.
- Wilson C 1985 'Serlo's church at Gloucester 1089-1100' in *BAA* 1985, 52-83
- Wilson, G W 1866 [12 views of Gloucester Cathedral] *Photographs of English and Scottish Scenery* (Aberdeen)
- Winkles 1838 *Winkles' Historical and Descriptive Account of the Cathedral Church of Gloucester*
- Winston, C 1863 'The Great East Window of Gloucester Cathedral', *Archaeol Journ* xx, 239-53, 319-30

XIII THE DATABASE

Record No	SAM	GCM	Site	Mus acc no	Description
1 Precinct wall, King's School	0	0	none	43/85	A machine trench was dug for rebuilding the collapsed abbey wall. The remains of a wall 1.2m wide with inner offset: standing wall was 94 cm wide. Lias limestone, with orange to buff sandy mortar. Two secondary builds at either end of the trench. One (S end) 1.2m wide of lias with pink estuarine clay. One at N end 0.64m wide, of lias. The levels of St Mary St were also seen. (Glevensis 21, 1987, 20)
2 Precinct wall, W of Kings School garden	0	0	86/C	43/85	Record of worked stone fallen from precinct wall (86/C) and subsequent record of wall stratigraphy
3 St Mary's Gate, iron gates	0	0	94/A	none	The 'Nuremberg Gates' from Painswick Church were removed from the church in the 1940s and finally installed in 1947 in St Mary's Gateway. In order to gain vehicular access, the gates were removed in 1994.(94/A) (GRO
4 St Mary's Gate	221	0	none	none	Excavations were carried out in 1916 to establish the character of the foundation. Workmen discovered the foundations of an older building S of the gateway, at a different angle to the gateway (depth of this building not stated). There was 4 ft of made ground below ground surface. The gate foundations were cut 2ft into it. Beneath the made ground was a bed of running sand 5 ft deep; below that 4ft of gravel on blue clay.(CAB 12 Dec 1916, p 38). A survey measured in 1916 was drawn up in 1926 (uncatalogued drawings). Photo of W side 1916 (Glos Library
5 Deanery, Miller's Green	0	0	96/F	none	Inspection before alterations encountered no features earlier than 18th century. Brick cellars.(96/F)

Record No	SAM	GCM	Site	Mus acc no	Description
6 4 Miller's Green	0	0	83/A	none	Medieval culvert found under street about 750mm deep, stone lined, covered with stone slab. Depth a few cms below ground surface (approximate) (Heighway, Glevensis 22, 1988, 36)
7 4 Miller's Green	0	0	84/E	none	Various medieval details exposed during building alterations. An east west wall included the remains of a pair of medieval openings. Under the floor was a culvert flowing east to west. The north part of the building appears to be 17th century, but incorporated in the NE corner is an ashlar-faced pier which related to some earlier building which extended further north, under the present pathway. (Heighway 1988, 29-36)
8 Miller's Green	0	0	85/B	none	Brick culvert discovered running north-south (85/B)
9 Miller's Green	0	1560	none	none	Roman pottery found 1854 (Fullbrook-Leggat, Glevum, 1964, 70).
10 Miller's Green (?)	0	443	none	none	Samian pottery found during sewerage operations. The depth was about 2m, judging by depth of the main stormwater drain viewed in 1998. 'in excavating on the north side of the Cathedral a large quantity of fictills of Samian pottery was discovered and has been partially restored'. (Glos Journ. 22 July 1854).
11 Miller's Green	0	531	none	N.543	Denarius of SABINA found May 1925 now in Museum (GCM 531).
12 13 College Green	0	0	86/A	none	The south wall of the building incorporated a timber arched brace supporting an upright; possibly part of an earlier building, predating the building which was constructed in 1735 (86/A).

Record No	SAM	GCM	Site	Mus acc no	Description	
13	College Green	0	0	93/J	none	A cable trench was dug from Church House to St Mary's Gate. No archaeological features were observed (93/J).
14	College Green (west)	0	0	95/H	none	Excavation of subsidence appeared to show it was an old tree hole. Only garden soil was encountered
15	Church House, College Green	0	0	88/A	none	Record of blocked doorway at junction of Parliament Room/Henry Room basements. Evidence of 13th-century walling (88/A).
16	Cloister, west range	0	0	89/B	none	Record of possible medieval wall and buttresses in garage (formerly stable) west of cloister, E of Parliament Room (89/B). See Oliver, 267-9, for description of this range
17	Church House (12th century block), top floor	0	0	93/F	none	Record of interior details of the 12th century and later building exposed by plaster stripping and alterations (93/F).
18	Church House, College Green	0	0	88/B	none	A hole was dug in the 13th-century lobby to investigate rising tiles. An upper level of rubble and limestone chippings overlay a densely-packed loam. The latter contained only Roman material (88/B).
19	Church House, east yard	0	0	80/A	11/80	Medieval walls and floors of west cloister range, 12-14th century; burials of 10th-11th century (Garrod and Heighway 1984, 53-5). See Oliver, 267-9, for description of this range 1649.

Record No	SAM	GCM	Site	Mus acc no	Description
20 Church House, east yard	0	0	80/B	34/80	14th-century walls additional to those in site 11/80. A stone mortared foundation 4.5m long parallel to and 2.4m from the west wall of the Great Cloister (Garrod and Heighway 1984, 55).
21 Church House basement	0	0	94/D	none	Laying of new services for the basement of Church House. Under modern rubble were medieval occupation levels at a lower level than the offset of the 12th century walls (94/D).
22 Church House (12th century block): east gable	0	0	93/E	none	Part of the 12th-century block of the original abbot's hall. A window in the gable was made of re-used 12th-century architectural detail (93/E).
23 West slype	0	0	91/C	none	Excavation for electricity ducts and a record of wall after stripping of plaster. Excavation for electricity ducts just outside the W slype uncovered the 14th-century foundation of the slype entrance at about 0.4m depth (91/C).
24 11 College Green	0	0	91/E	none	The north roof gable incorporates rafter, tie and two verticals of the gable of an earlier building (91/E).
25 10 College Green	0	0	90/B	none	Record of 18th and 19th century features. The north room on the second floor had painted wall-plaster ?19th century. (90/B)
26 Cloister garth, tank	0	0	95/B	none	Several Victorian drains were reexcavated and repaired. Recorded the sluice exit and culvert channel at the W end of the medieval tank. See also 96/C. The tank was recorded by Gloucester Museum excavation unit.(95/B)

Record No	SAM	GCM	Site	Mus acc no	Description
27 Cloister garth, tank	0	0	84/B	none	Tank in the cloister garth cleaned and photographed (84/B)
28 Cloister garth, record of worked stone	0	0	91/F	none	Record made of worked stone lying in cloister (91/F)
29 Cloisters	0	0	93/A	none	During washing of cloisters traces of red paint were noted (93/A)
30 Cloister garth	0	0	96/C	107/97	Observation of excavation for central fountain. The gravel paths were removed and ground level under them reduced. The central pond area was dug to 1.0m. At 0.6m below datum was a cobbled surface of building materials with several layers of building material below this. Beneath this was a loam about 0.5m thick contained much Roman material: possibly upcast from cloister construction. Finds included a stone knight's head of 14th century date and a Roman melon bead (96/C)
31 Little Cloister House, Miller's Green	0	0	84/C	25/84	Repair of 13th-century vaulting; removal of vault packing discovered a medieval melting-pot.(25/84 SF1). This is retained by the Dean and Chapter [1998].(Heighway and Brownsword 1988)
32 Little Cloister House, garden	0	0	78/A	13/78	East-west wall with associated floors was post-medieval. Frater area (Garrod and Heighway 1984, 44).
33 Little Cloister	0	0	none	none	Four medieval stone coffins are built base outwards into a wall on the north side of the Little Cloister (TBGAS 61, 161).

Record No	SAM	GCM	Site	Mus acc no	Description
34 Infirmary, south side	0	0	87/C	none	Two holes 1m square and 2m deep dug to locate Victorian drain. The south infirmary wall was recorded, its south face 5m from the infirmary columns. The infirmary wall foundation rested on pitched Roman tiles. A north-south wall was also recorded, and a pre-infirmary wall which may have been part of a culvert.(87/C)
35 Infirmary arches	0	0	84/A	none	Excavation by C. Guy 25 June - 9 July 1984. The aim was to locate pillar bases of the north aisle of the infirmary. These were not found. An 18th-century wall ran east-west, cobbles to south, slightly at an angle to the Infirmary: this was the south boundary of the organist's house in the 17th century and the north boundary of the public path. [Location of site plans and finds not known - slides in GCL] See also record 34 for Infirmary south wall. (84/A)
36 King's School (old Bishop's Palace) new office	0	0	90/A	none	Wall foundation forming foundation of chimney in 16th-century Bishop's Palace (90/A)
37 Dulverton House, service trench	0	0	none	46/79	Brick culvert of Fullbrook recorded on south garden boundary (Garrod and Heighway 1984, 52)
38 North of Chapter house, former ladies lavatories	0	0	90/D	103/97	1m of deposits were 19th century; a 1m thickening of the north wall of the Chapter House was also 19th century (90/D).
40 East slype, now Treasury	0	0	76/A	63/76	Record of walls before making opening for entrance to treasury. Excavation under N of N transept floor encountered loam deposits = ?make-up for 1086 church. 18th-century graffiti relating to song school recorded on wall of E slype (Garrod and Heighway 1984, 37-8)

Record No	SAM	GCM	Site	Mus acc no	Description
41 Heating installation	0	1563	71/B	25/71	Under the new boiler house, in the angle between the north transept chapel and north ambulatory, were recorded the edge of the intervallum road metallings and layers of topsoil rampart (Hurst , Antiquaries Journal liv, 1974, 13). A few bones were found digging the trench for pipes north of the Lady Chapel 3-4 ft deep (GCAR i, 71/B). NB line of pipes north of Lady Chapel marked by stone slab - this is not a ledger.
42 Cathedral Song School	0	0	86/F	none	Medieval tiles recorded under wooden floor (Kellock, TBGAS 105, 247).
43 Palace House, Pitt St	0	577	none	NX.37	AE of Constantine I found in digging foundations for Palace Hse in 1954 (GCM 577)
44 Precinct, east, lighting trenches	0	0	97/A	none	Cable trench around east end of Cathedral and holes for new lamp posts 0.8mn deep. The trenches disturbed 19th century made ground and 19th century brick culverts.
45 King's School garden excavation 1964	0	1460	none	not known	Roman wall and military rampart (O'Neil, Excavations in Kings School, TBGAS 84, 1965, 15-27) see also record no 46 .
46 Via Sacra walk	0	3624	77/A	33/77	Layers of the 2nd-century Roman rampart were located; also a medieval or post-medieval wall (77/A)
47 St Lucy's Garden, manhole	0	0	none	35/87	Victorian sewer pipe; Georgian brick culvert 3.5m deep cut inner edge of N. Roman ditch.[Records missing: APG thinks site book mislaid by Another] (Glevensis 22, p 27, under site 25/87 misprinted).

Record No	SAM	GCM	Site	Mus acc no	Description
48 Samian pottery	0	1533	none	none	Pottery found at base of NE ambulatory chapel (Fullbrook-Leggat, Glevum, 1968, 50).
49 Precinct, N of Lady Chapel, borehole 4	0	0	89/A no 4	none	Borehole encountered rubble foundation of Roman city wall at 3.1m depth (89/A)
50 Lady Chapel, tile floor	0	0	96/A	75/95	Record of tile floor (GCAR ii, 96/A): record drawing in gloucester cathedral library.
51 Lady Chapel, undercroft	0	0	86/D	none	Record of worked stone stored un undercroft before discard (86/D)
52 Lady Chapel	0	0	90/C	none	Record of floor tiles, superseded by project 96/A, record 50.
53 Cathedral Crypt	0	0	79/A	5/79	Observation of trenches around crypt piers. The original floor associated with the columns was a sand mortar with a rubble makeup overlying natural clay. Above this the floor was covered by a 400mm thick layer containing 16th-17th century roof tiles. It was noticed that the columns had subsided 300mm below the medieval floor level. (Garrod and Heighway 1984, 46).
54 Cathedral, choir	0	0	none	none	Excavation for new reredos in 1872. Bases of Norman piers around east end of the choir, and masonry recesses below the high altar for the reception of relics (Masse, Guide to Gloucester Cathedral 1898, 51). Original drawings by Waller in Cathedral Library (GCAD 4/2-4/3; Welander 1991, 78, 182).
55 Cathedral, crypt	0	0	94/B	none	Possible 12th-century graffito on 12th century strengthening rib in crypt (Heighway 1996)

Record No	SAM	GCM	Site	Mus acc no	Description
56 Cathedral, crypt	0	0	91/B	none	The holes around the piers in the central area were being shuttered: 14th-century construction levels were observed at 0.33m below present floor. (91/B)
57 Cathedral, SE ambulatory chapel, reredos	0	0	92/C	none	Excavation of interior of reredos before alteration. Finds included 12th-century worked stone from the original chapel windows. A record of the floor tiles was done by L. Keen. (Heighway 1993)
58 Cathedral, Lady Chapel, S Chantry	0	0	94/C	105/97	Record of tile floor before emergency excavation due to subsidence. Record also of 17th century wooden wall plaque. Only post-medieval deposits were encountered; the subsidence was due to underlying burials of 17th and 18th century
59 Cathedral; tower chamber	0	0	93/B	none	Fragments of an old organ had been made into a wooden box in the tower chamber. The box had been filled with sawdust as an emergency catch for the clock weights.(93/B)
60 Cathedral, nave	0	0	84/F	none	Reflooring in front, West, of the screen disclosed a stone foundation faced only on the west side. It included re-used medieval worked stone.(84/F)
61 Cathedral, Chequer	0	0	86/B	none	Stone coffin found under floor. Coffin made of one peice of stone, with three drainholes. Also under the floor was a small limestone box with handled lid.(GCAR i, 86/B) See also record 167.
62 Cathedral, nave	0	0	87/A	none	Medieval screen foundation found under steps up to south transept.(87/A)

Record No	SAM	GCM	Site	Mus acc no	Description
63 Cathedral, S Transept, electricity duct	0	0	85/A	none	E and N sides of S transept. S transept floors rests on dark stony soil with no earlier floor levels. Two brick vaults were encountered, one of Dean Tucker (1799). Photographic record of coffins made by D Welander; report (in litt) by Julian Litten.(85/A)
64 Cathedral, nave wall in S aisle roof space	0	0	84/G	none	Inscribed stone of the XX Legion, in the south aisle roof space, built into the outer south face of the 15th-century blocking of the second arch from the west end, at triforium level, (Britannia xvii, 1986, 429)
65 Cathedral, nave, PA system	0	0	92/A	104/97	Record of duct excavated for PA cables in N and S aisles of nave. Medieval tile floors viewed at various places, a ledger reused as a flagstone, the false bases of the nave piers, the original bases of the nave piers (square in plan), parallel walls represent an altar base at the east end of the nave; brick vaults.(92/A). A lead spoon of late 15th to early 16th century date from the layer below the stone floor is retained by the Dean and Chapter.
66 Cathedral, nave	0	0	87/B	none	Relaid floor comprising re-used medieval tiles found just west of the south porch in the south aisle, at a depth of 0.3 from PGS (87/B)
67 College Green, Borehole 1	0	0	89/A	none	Borehole 1 of 4 exposed 1m of topsoil, brown earth below this. Natural sand at 4.1m depth.(89/A)
68 College Green, borehole 2A	0	0	89/A	none	Initial excavation of borehole encountered brick well. Borehole moved: see Borehole 2. (record 69) (89/A)
69 College Green, borehole 2	0	0	89/A	none	Sample of strata to below natural.(89/A)

Record No	SAM	GCM	Site	Mus acc no	Description
70 College Green, mosaic pavement	0	427	none	none	Mosaic pavement found 1867 outside S Transept at 3ft (1m) depth. Tesserae one inch square of coarse texture; pattern in stripes white/red. (Cathedral precinct level lowered 1856 so present-day ground levels apply). Fullbrook Leggat, Glevum, 1968, 50)
71 College Green, borehole 3	0	0	89/A	none	Borehole provided level of Roman and medieval deposits - medieval at 2m depth, Roman at 13.6m depth .(89/A)
72 College Green S side of nave	0	0	92/B	none	All the drains from the Victorian downpipes on the S side of the nave were excavated and repaired. The excavations showed at least 1m of topsoil with no sign of burials or other features.(92/B)
73 Cathedral, S Porch	0	0	92/E	none	Repair history of the south porch (92/E)
74 Cathedral, S Porch	0	0	93/D	none	Photographic record of south porch figure canopies after removal (93/D)
75 College Green, west Church House cable connection	0	0	97/F	none	Observation of a cable duct from junction box west of Church House to 4 College Green. The medieval cemetery wall was recorded in the expected position just South of the West end of the cathedral. At the west extremity of the trench at 0.7m depth was a mortar surface of medieval or even Roman date. (97/F)
76 College Green	0	0	92/D	17/92	Excavations for new drains uncovered eleven skeletons, aligned heads to the west, between 0.5m and 1.2m below present ground surface.(92/D)

Record No	SAM	GCM	Site	Mus acc no	Description
77 College Green	0	0	95/G	35/95	A watching brief maintained during improvements to the cathedral precinct. New drainage trenches cut through the cemetery S of the Cathedral. Five articulated burials and much disarticulated human bone was recovered. A large stone block was probably part of a memorial.(Glevensis 29, 13)
78 College Green	0	0	84/D	7/84	Observation of wall, bonded with orange mortar, roughly north-south, about 0.5m deep (?)
79 College Green, RB coin	0	1534	none	none	Coin of Tiberias found 'at a considerable depth' (Fullbrook-L:eggatt Glevum, 1968, 50)
80 King Edward's Gate; new kiosk	0	0	91/D	27/91	The excavation uncovered a wall (8) 45cm wide running north-south and bonded to the lowest courses of the gate. Also post-medieval features. (Glevensis 26, 1992, 43-4)
81 King Edward's Gate; 13 College St	0	0	93/G	93/G	Record of 16th-century gate during internal alterations. Mostly 18th century brick: original gate consisted of single gate passage with room over. (93/G)
82 King Edward's Gate	0	0	none	17/91	Observation during building of new gate-posts. Metalled surfaces in gateway of early 15th century date bounded by lias wall to west. This wall must represent a gatehouse pre-dating the 16th century one. (Museum report 17/91)
83 King Edward's Gate	0	3618	77/B	12/77	Record of successive medieval gates; and street levels in the lane outside the gate.(Garrod and Heighway 1984, 39-43)

Record No	SAM	GCM	Site	Mus acc no	Description
85 College Street surfaces	0	0	none	18/91	Record of 16th-century gate foundations. (Museum report 18/91)
86 College Green, gas main	0	0	80/C	40/80	Stony makeups and surfaces, undated but probably post-medieval (Glevensis 16, 31)
87 2 College Green, cellar	0	0	81/A	11/81	Remains of two inhumations 40cm below cellar floor. Burials cut into dark soil containing remains of previous interments.(Glevensis 16, 1982, 31)
88 1 College Green	0	0	89/D	none	Record of building during alterations. 18th-19th century brick building and cellar, with timber levelling in many of the walls. When originally built the property was one room deep, with a yard at the back (south) bounded by the abbey wall: property subsequently extended to abbey wall. (89/D)
89 9 College Court	0	0	92/F	none	Photograph of outside face of medieval precinct wall recorded by Norris Reading surveyors. Mostly brick, but part of the stone wall remains with some very large course near the base.(92/F)
90 20 College Green: cemetery wall	0	0	95/A	none	Archaeological recording of medieval abbey cemetery wall before partial demolition. The west face (inside the house) had been cut into by an oven. (95/A)
91 2, Three Cocks Lane	0	0	none	8/82	12th-century clay floors 1m east of frontage; foundations of abbey wall. Lower metallings of Three Cocks Lane overlay a thick black organic deposit.(Museum site 8/82)

Record No	SAM	GCM	Site	Mus acc no	Description
92 8 College Green	0	0	93/C	none	Record made during renovation. Tudor timber-framed building with stone cellar. The cellar is medieval or late medieval, with a number of splayed openings with cut-stone jambs. One on the S side has stone surround, recessed for shutters, and chamfered. (93/C)
93 7-8 College Green: precinct wall	0	0	97/E	none	Record of precinct wall in garden of 7 and 8. The medieval wall is of lias, much altered with brick. At the centre of this section of wall was a doorway leading out into the lane around the abbey wall. The doorway had been blocked in stone, and rebuilt in brick on either side. (97/E)
94 Cathedral, Lady Chapel, Undercroft	0	0	97/C	none	Record of the undercroft prior to refurbishing established that the floor slabs consist of ledger slabs, at least one of 14th century date. The slabs rest on a mortar floor and construction levels, possibly medieval, cut for a central feature, possibly a medieval culvert. During observation of excavations of manholes, at 6m NE of the NE corner of the Lady chapel, tip lines of the late Roman city ditch were observed under 1 m. of topsoil. A new drain trench dug just south of the Lady chapel uncovered 18th century brick garden features (manhole A).(GCAR ii, 97/C).
95 17A St John's Lane: abbey precinct wall	0	0	none	69/76	Observations during laying of services; a length of the abbey wall was observed built of lias stone in yellow mortar.(Heighway et al, N and E Gates of Gloucester, 1983,
96 19 St John's Lane	0	0	none	14/76	Observation of a stretch of abbey wall which angled 90 degrees to the west. The wall was of lias, with an offset. If this was the abbey wall then there was an entrance here. Roman street levels and buildings were also observed. (Heighway et al, N and E Gates, 1983, 19).

Record No	SAM	GCM	Site	Mus acc no	Description
97 St John's Lane, Methodist Hall	0	0	none	27/73	Observations during construction of Methodist Hall observed a trench along the line of the abbey wall. The wall crossed the Roman city ditch and line of city wall (here not robbed until end 10th-11th century). The abbey wall is assumed to be dated to 1104-13, from Documentary mention. The area east of the wall was occupied by burials of the cemetery of St John's Church, began 1407, extended across the city wall late 18th century. (Heighway et al N and E Gates, 1983, 15-16)
98 Cathedral, Cloister	0	0	none	none	Seen during repairs to Cloister roof: part of a blocked dooway at high level in the north wall of the cloisters; also a piece of projecting stonework on NW corner of the Chapter House. Both possible evidence that the north half of the east walk of the Great Cloister once carried a second storey. (Friend Reports, 29, 1965, 8-9).
99 Cathedral, Dark Cloister	0	0	none	none	Dark cloister (passage from NE corner of Gt Cloister) cleaned; evident that floor originally 2ft higher than present. Brick vaulting of cellars underneath floor (this can also be seen on E wall of dark cloister near north end). (Friends Reports, 29, 1965, 9-120).
100 Cathedral church	0	1537	none	none	External appearance Perpendicular but embodies work from late 11th to 15th centuries and later. (D of E List) NMR SO81NW 286/115512 (parent) 207/115498 (church) DCMS 1998, p 53
101 Cathedral, claustral buildings	0	0	none	none	Claustral buildings, see other entries. NMR SO 81 NW 286/115512 (parent, with many child entries). See also record no 175, 162, 164 and Welander 1991,

Record No	SAM	GCM	Site	Mus acc no	Description
102 1 College Green	0	0	none	none	18th-century brick, 2 storeys and dormers. 8 windows (double hung sash) with keystones and brick arches.(D of E List). A 'messenger' in 1665. A separate dwelling in 1736 (Eward 1985, 299-300). DCMS 1998, 95. Morriss 2001. Site formerly part of the abbey lay cemetery. Rear (S) wall of curtilage is part of abbey precinct wall. See also record no.88.
103 2 College Green	0	0	none	none	House of mid 18th century, remodelled in early 19th. Brick, stuccoed on front; slate roof. Garden ground with small tenements in 17th century (Eward 1985, 299-300). DCMS 1998, p 96. Morriss 2001. Skeletons found beneath cellar floors (see record no.87) - site formerly part of abbey lay cemetery; rear (s) wall of curtilage is part of abbey precinct wall.
104 3 College Green	0	0	none	none	House, built shortly after 1736 by Elizabeth Palmer, radically rebuilt c. 1800. Brick. 3 storeys, 3 bays.Slate roof. (D of E List; Eward 1985, 300, 313; DCMS 1998, p 97, Morriss 2001). Back wall of cellar is well-preserved section of abbey precinct wall - see record no 153.
105 4 College Green	0	0	none	none	House, originally built on this site by 1616. Present building 18th century brick, 2 storeys and gabled dormers. (Eward 1985, 313; DCMS 1998, p 98, Morriss 2001). Site formerly part of abbey lay cemetery. Rear (s) wall of curtilage is part of abbey precinct wall. See record no 187 for nearby discovery of burials.

Record No	SAM	GCM	Site	Mus acc no	Description
106 6 College Green	0	1483	none	none	House, rear wing rebuilt in 17th century, enlarged (east wing) early 19th. Two storeys plus dormers; five windows crowning cornice and parapet (Morriss 2001). Prebendal house by 1577. Known in the 17th century as the Sexton's house. Tenants can be traced back to 1577 (Eward 1985, 31, 315.) 1649 lease, Oliver 283 DCMS 1998, p 99.
107 7 College Green	0	1484	none	none	House, late medieval origins mostly hidden; remodelled in 18th century. Largely rebuilt in 2nd half 19th century in Gothic revival style. Gables and stone-mullioned windows. Interior: carved Renaissance chimney piece of 1620; some older panelling, reset (Morriss 2001). In 1764 panelling from Manor House at Tuffley installed (Eward 1985, 301-2). 1649 lease (Oliver 270). Rear wall of garden is medieval abbey wall. Photo: see Welander 1991, 494 DCMS 1998, p 101
108 8 College Green	0	0	none	none	House, 18th century front, bow window; hides two Tudor timber-framed buildings, jettied to south (Morriss 2001). See record 92 also. For 1649 lease see Oliver 272 DCMS 1998, p 103-4. Rear wall of garden is medieval abbey wall.
109 3 College Yard	0	0	none	none	House. Late 15th-century two-bay cross-wing serving an assumed hall range to east (Morriss 2001). Original fireplace on E wall behind present stairwell. Included in listing as part of 8 College Green (DCMS 1998, p 103-4). 1649 lease (Oliver 272)

Record No	SAM	GCM	Site	Mus acc no	Description
110 1-2 College Yard	0	0	none	none	House, late 15th or early 16th century. A six-bay late medieval range extending from 3 College Yard on N to Abbey Wall on S. Jettied on W side; queen-post roof with collars. Added to record no 110, 3 College Yard. (Morriss 2001) Described in 1649 (Oliver, 272) as 39ft wide, double its true width, so modern structure on W side may be on 17th century foundations? Included in listing as part of 8 College Green (DCMS 1998 p 103-4)
111 The Barn (garage of 8 College Green)	0	0	none	none	Timber-framed range close in style and date to record no. 110; rests on the abbey precinct wall on the south side (Morriss 2001). Included with listing of 8 College Green (DCMS 1998, p 103-4). Stable and cowhouse in 1649 (Oliver, 272).
112 9 College Green	0	1485	none	none	House, built by S. Ricketts, 1708-9 on site of stables (not c.1690 as stated in D of E List). Brick, 3 Storeys, 5 windows. Good example of Queen Anne town house (Morriss 2001) Drawings by A Ault measured in 1945. Eward 1985, 302. DCMS 1998, p 105
113 10 College Green	0	0	none	none	House, built by 1741 by J Pasco and B Gunn on site of stables. 18th century brick, 2 storeys and dormers. A pair with no 11 College Green. House incorporates no 8 Three Cocks Lane (unlisted), now a separate dwelling (Morriss 2001). See also record no 25.(Eward 1985, 303) DCMS 1998, p 107
114 11 College Green	0	0	none	none	House, built c.1750 with no 10 College Green on site of dunghill/stables. 18th century brick, plastered. 2 storeys and dormers (Morriss 2001). See also record no 24. Eward 1985, 33, 303 DCMS 1998, 108

Record No	SAM	GCM	Site	Mus acc no	Description
115 12 College Green	0	0	none	none	House, 18th century brick, 2 storeys and dormers. Includes a ballroom (now with inserted mezzanine). Built 1735-6 on site of bishop's coachhouse and stables (a new coachhouse and stables were built adjoining the Deanery). See also record no 12 Eward 1985, 304 DCMS 1998, 109 Morriss 2001
116 13 College Green	0	0	none	none	House, 18th century brick. Built 1735-6 on site of bishops coach house and stables. 2 storeys, 3 windows. See also record no. 12. DCMS 1998, p 111 Morriss 2001
117 14 College Green	0	1486	none	none	House, next to St Mary's Gate. Upper storey 15th century timber-framed, lower storey stone 14th century or even earlier). 16th century oriel window. Said to be site of abbey Almonry (Eward 1985, 33). Prebendal house of 6th stall in 1649x58; lease with measurements (Eward 1985, 33, 93; Oliver p 117.). In 1998 this building was two properties, one called no 14, one next to St Mary's Gate with door opening to St Mary's Street. See also record 155. Part survey in 1916; see St Marys Gate, record no 118. DCMS 1998, p 112-3 Morriss 2001
118 St Mary's Gate	221		none	none	Gateway with room above. Late 12th century vault, early 13th century superstructure. Extensive repairs and survey done 1916-17 (CAB1916, p 28, CWB Oct 1916). See also record 3. Drawn survey of 1916 drawn up in 1927; in GCL. DCMS 1999, 114. Morriss 2001

Record No	SAM	GCM	Site	Mus acc no	Description
119 Monument House, St Mary St	0	0	none	none	Mid 18th century house (Morriss 2001) The stone stair down from St Mary's Gate intrudes into the layout of Monument House.- see Waller plans of St Mary's Gate. This was the site of a 'small house' in 1634 (Eward 1985, 33). 1649 lease, Oliver p 248. DCMS 1998, p 331
120 Community House, 15 College Green	0	1487	none	none	House; present form late 18th century 3 storey, 5 bays, with some trace of medieval walling (Morriss 2001). In 1649 used as marshalsea; it then measured 25 yds x 6.5 yds N to S with a court and low range of buildings to west. Prebendal house of William Loe in 1634 (Eward 1985, 33, 94). Not almonry as stated by VCH. See record 117. The present plan existed in 1649 (Oliver, 274). DCMS 1998, p 115
121 Inner Gate	0	0	none	none	14th century gateway with 14th century lierne vaulting, chamber above. Since the 17th century and probably before, the gate has been let as part of 'Community House' (record no 120) (Oliver, 274). DCMS 1998, p 116 Morriss 2001
122 7 Miller's Green	0	0	none	none	House, late 17th century, stone and brick, may incorporate medieval fabric especially in west wall. Built c. 1680 on the site of 'The Parliament House' (Oliver p 274). Said (Eward 1985, p 167) to have included the Parliament Room (record no 123), but the two had been separate since the 15th century. A culvert flowed under the building in 1649 (Oliver p 281). Ross (1806) shows the building with two dutch gables facing College Green. DCMS 1998, p 279 Morriss 2001 Rowell 2000

Record No	SAM	GCM	Site	Mus acc no	Description
123 Parliament Room (included with Church Hse on List)	0	1490	none	none	13th century lower storey with late 15th century timber-framed upper storey. Included with Church House in listing. It was part of the Deanery in 1649 (Oliver p 267-9, 281). 13th-century window on ground floor indicates different arrangement at that date. See record 15 for observation of ground floor. Ceased to be part of Deanery c. 1720; 'Club Room' in 1760s (VCH iv, 287). DCMS 1998, pp 117-20 Rowell 2000 Morriss 2001
124 Church House (ii - north block)	0	1490	none	none	Stone building originally part of a hall, perhaps guest-hall of Abbot Horton 1351-77. Linking staircase to SE contained a medieval stone lantern. Frontage Victorian Gothic. Henry and Laud rooms have 16th century panelling. Roofs are 15th century. Henry Room roof timbers have red medieval painting. Detailed 17th century survey (Eward 1985, 94-5). See also record 15. DCMS 1998, pp 117-20 Morriss 2001 Rowell 2000
125 Church House (south block) former Abbot's Lodging	0	1490	none	none	12th century rectangular stone building, formerly Abbots lodging, later Prior's lodging, then Deanery, now offices. 12th century chapel over east slype. Early 13th century vestibule. 12th century detail in main building re-used. Survey by CMH included in Rowell 2000. See also nos 17, 18, 21, 22. 1649 lease (Eward 1985, 94-5) DCMS 1998, pp 117-20 Rowell 2000 Morriss 2001 St John Hope 1897, 121-2
126 17 College Green	0	0	none	none	House, mid 17th century. Brick and timber framing (Morriss 2001). Described 1649 (Eward 1985 p 296). Tenement on this site 'lately built' in 1622 (Eward 1985, 30). CMH does not agree with identification - this may still have been a garden in 17th century. DCMS 1998, p 121

Record No	SAM	GCM	Site	Mus acc no	Description
127 18 College Green	0	0	none	none	House, 17th century. Timber frame. Built against cemetery wall. Remodelled late 18th century. DCMS 1998, p 122 Morriss 2001
128 19 College Green	0	0	none	none	House, early to mid 18th century brick town house (Morriss 2001) House on site by 1649 (Oliver p 251) when it was recently built (Eward 1985, 297, 321). DCMS 1998, p 123
129 20 College Green	0	0	none	none	House, rented as garden by 1595, house built by 1616. 'The tradition that this house dates from monastic times..is unfounded' (Eward 1985, 29-30, 321). 3 bay timber structure; frontage Victorian; Abbey cemetery wall at rear (see record no 90). East 1st floor room has fireplace and decorated ceiling of 17th century. Morriss 2001 DCMS 1998, p 124. See also record no 90.
130 Wardle House (formerly Cathedral Hse)	0	1541	none	none	House, built 1677x1686, brick, 18th c bow window Plot measurements 1649 (Oliver 266). Eward 1985, 296-7. DCMS 1998, p 81 Morriss 2001
131 King's School House (formerly Cathedral Hse)	0	1540	none	none	House, 16th century, timber framed, early 18th century frontage. Interior, 17th century panelling and Jacobean fireplace. (Morriss 2001) Described as 'two dwelling houses' in 1623 (Eward 1985, 329, 30; Oliver, 263). DCMS 1998, p 73

Record No	SAM	GCM	Site	Mus acc no	Description
132 St. Michael's Gate	0	0	none	none	Pedestrian gateway in the former precinct wall of the abbey, formerly known as Upper College Gate. Above the gateway and on its northern side at first floor level a small 18th century wing projects from and forms part of 1 College Green. Gateway refaced in early 16th century, in Perpendicular Gothic style. Rooms added over gateway, 1737 (Eward 1985, 300). DCMS 1998, p 125 Morriss 2001
133 King Edward's Gate = 13 College St	0	0	none	none	Medieval gateway, surviving part early 16th century, with 18th-century addition to west. Gate consists of one turret and part of another with stone newel stair inside. See also records 80, 81, 82, 83. Known as 'Lich Gate' 1223; King Edwards Gate c. 1600 (VCH iv, 281-2). Room over gate leased out from 1577 last let 1673 (Eward 314, 301). DCMS 1998 Morriss 2001
134 Dulverton House	0	0	none	none	House, 13th-14th century with later additions. L shaped stone building at core with 14th century arch-braced roof. On the ground floor are timber supports with carved corbels in the shape of robed figures. In the cellar are two buttresses of the 13th-century infirmary chapel. (Eward 1985, 98; Oliver p279). Stone arch in roof of eastern range. NMR 81 NW 216/115507. Morriss 2001 DCMS 1998, p 66
135 Infirmary, remains of	219	0	98/A	none	Remains of south arcade of infirmary. The 13th century arches were until 1862 incorporated into post-medieval buildings known as 'Babylon' (see record nos 171-4). Description of 1649: Oliver 260-263). The 1862 restoration was extensive (see Library MS 53, p 52). Cellar of Dulverton House contains two raking buttresses with roll-mouldings of the infirmary chancel. GCAR iii, 98/A). DCMS 1998, p 80. Morriss 2001 See also nos 34-5.

Record No	SAM	GCM	Site	Mus acc no	Description
136 Little Cloister, or Infirmary Cloister	220	0	none	none	15th century tracery in cloister, West walk partly built over by 'Little Cloister House'. E walk not extant. Repaired and soil removed 1952 (Ashwell, Chronicle I, p 20, Figs 110-115). NMR SO 81 NW 213/115504 DCMS 1998, p 74 Morriss 2001
137 Little Cloister House, part of	0	0	none	none	Late medieval or 17th century building, set partly on west walk of Little Cloister; ground storey of stone, half-timbered above. The building originally extended half a bay to north over present path. The ceiling was at wall-plate level so not a 'hall house'. S bay of roof railed off and limewashed - servants' quarters? (Visit 1994). Detailed description of 1649 (Eward 1985, 96; Oliver p 280) DCMS 1998, p 75 Morriss 2001
138 Little Cloister House (part)	0	0	none	none	House; building with 13th century arched stone undercroft. West and east walls of brick. Upper floor was a 13th century 1st-floor hall; there are remains of windows in south wall at high level and roof timbers are part 13th century. The hall once had a late-medieval wall-painting on the gable end of Christ in Majesty (Tristram, 1948, 7-8), now in the Parliament Room; the ceiling was also painted (FGCAR 1968, 7-13; for ceiling painting, see Rickerby 2000). Detailed description of 1649 (Eward 1985, 96; Oliver p 280). An added bay to the west, part half-timbered, has a 13th century doorway on the ground floor and incorporates a wall at a different angle to the hall-building on an alignment which also appears in the north side of the Little Cloister. NMR SO 81 NW 214/115505 DCMS 1998, p 75 Morriss 2001

Record No	SAM	GCM	Site	Mus acc no	Description
139 3 Millers Green	0	0	none	none	House, 18th century, incorporating remains of earlier buildings. This building is reputed to be on the site of the Common Kitchen. (Eward 1985, 22; Evans and Eward 1972; D of E List). Prebendal house by 1612 (Eward 1985, 324). DCMS 1998, p 272. First floor front room with Jacobean plastered ceiling. Large fireplaces behind panelling on east wall of ground floor. Morriss 2001
140 4 Millers Green	0	0	none	none	House, consists of two halves: north half 2-bay timber frame 3 storeys upgraded in 1st half 18th century. East wall medieval: medieval wall between 2 halves. See record no 7. DCMS 1998, p 274 Heighway 1988, 29-36 Morriss 2001
141 4 Millers Green (part of)	0	0	none	none	House, 3 bay, 3 storey, first floor room has Perpendicular window. Late 15th or early 16th century (Morriss 2001) Heighway 1988, 29-36. See also record no. 7. DCMS 1998, p 275
142 5 Millers Green	0	0	none	none	House, mainly stone. South wall may be medieval. House ?late 16th or early 17th century. Thought by St John Hope to be the kitchen. DCMS 1998, p 276 Morriss 2001
143 6 Miller's Green	0	0	none	none	House, late 17th century. Brick. Modern rough cast. 3 storeys. 5 windows (with 'Gothic' glazing). Central bay projects. Gate piers with urns (Morriss 2001). Built 1649 on vacant site (Eward 1985, 95)

Record No	SAM	GCM	Site	Mus acc no	Description
144 1 Millers Green (The Deanery)	0	0	none	none	Used to be Organists house, now the Deanery. Built by 1741 and leased to Peter Haynes gent. Fine brick front. 3 storeys. 5 windows (double hung sash and original glazing bars and brick arches). Fine pedimented stone doorway, c. 1770. Gate piers with handsome urns and wrought iron railings. Interior, good staircase and panelling. Regency balconies at back. Built by 1741 on site of several small tenements; these rented out in 1574 (Eward 1985, 33-4, 306). Survey of 1649: Oliver 249. DCMS 1998, p 269. The DCMS list says Robert Raikes born here but no evidence for this. Raikes born 1736; house possibly not built then.
145 2 Miller's Green (The Old Mill House)	0	1489	none	none	Late 18th century. On site of monastic mill. Brick, three-storey. Millstone built into the cellar floor. Cellar contains a well.? (D of E List). In the 17th century the building consisted of one block on the S next to 1 Millers Green (Eward 1985, 306). For dimensions of mill in 1649, see Oliver's Survey, p 254. See also record 163. Assessment, 1999 (99/E). DCMS 1998, p 271 No signs of industrial use: only the footprint of the south block may remain from the mill building. Morriss 2001.
146 Kings School, formerly Bishops Palace	0	0	none	none	House, rebuilt in 1862 by Ewan Christian on site of original Abbot's Lodging and Bishop's Palace (for which see record 156). Ashlar, Gothic Revival. Irregular elevations with coped gables and various stone-mullioned windows in perpendicular, Decorated and Early English Styles (D of E List). The private chapel of the old palace, rebuilt by Christian, is now a reception room (Verey 1970, 223). NMR SO81 NW 215/115506 DCMS 1998, p 70. Morriss 2001 See also no. 156.

Record No	SAM	GCM	Site	Mus acc no	Description
147 College Green, War memorial	0	1488	none	none	War memorial to the Royal Gloucestershire Hussars Yeomanry, unveiled 1922. Morriss 2001
148 Kings School Hse (Palace), Summer Hous	0	0	none	none	Garden pavilion, early 18th century in style with Ionic columns and pediment ornamented with a coat of arms. Walls of late 19th century brick. Incorporates reused worked stone of medieval date. The pediment was transferred from the main entrance porch of the bishop's palace on its demolition c. 1860 (Bradbury 2000). The pavilion was formerly SAM 394; de-scheduled 1999. Morriss 2001
149 Precinct wall north of old Bishops Palace	393	0	none	none	Part of abbey precinct wall, height about 15ft. Incorporated bishops palace; there are 5 window openings of a former long gallery; one was an oriel window overlooking Pitt street. DCMS
150 Roman coin	0	576	none	I 40/1964;	Coin of Constantine AD335-341
151 Crypt	0	0	98/B	none	A heap of rubble was cleared from the original N stairwell of the crypt entrance, now blocked. The rubble contained modern material, and more than 100 floor tiles, from a 15th century yellow and black chequer floor. These were probably disturbed from a floor in the N chapel of the crypt during laying of heating ducts in 1972.
152 8 College Green	0	0	98/C	none	Rim-herd of Anglo-Saxon pottery found in garden. Gloucester fabric 41A, hand made cooking pot in oolite tempered ware.
153 3 College Green, cellar	0	0	98/D	none	Photographic record of inside face of abbey precinct wall; lias stone

Record No	SAM	GCM	Site	Mus acc no	Description
154 Roundel of Christ	0	0	none	none	Roundel of Christ found set into E end of garden of Bishops Palace (now Kings School). At present in Cathedral Exhibition. Dobson, DP TBGAS 55 (1933) 271; Keyser JBAA, 1912, NS xviii, 162.
155 14 College Green	0	0	none	none	Brick floor on first floor noted and photographed (before 1993)
156 Abbots' Lodging (site)	0	0	none	none	Built 1316-1329 by John Wigmore. Abbot Thomas Horton (1351-77) built 'the abbot's chapel beside the infirmary garden'. There is a detailed description in letters Patent of Henry VIII, published in Dugdale, Monasticon, 1, 1817, 554; translated in Stevenson, Calendar (Gloucester 1893), 19-26. Traced by Waller In Feb 1881 from a survey made before demolition in 1856, published St John Hope, 1897, 124 and plate III. Very ruinous and not habitable in 1646 (Eward 1985, 89). Major refurbishment including classical portico by Bishop Benson in c. 1740 (VCH iv, 287).
157 Cemetery wall	0	0	none	none	Medieval wall dividing western court (later Lower College Churchyard) from lay cemetery (later Upper College Churchyard). A wall on this line found bonded to the lowest courses of King Edwards Gate (record 80). The wall was of dressed oolite and lias facing blocks with a roughly coursed rubble core bonded with a sandy mortar. Measured 45cm wide. The position of the wall was also recorded further north (record 75). The wall was demolished 1768 (Welander 1991, 424; Eward 1985, 29). Construction date not known.

Record No	SAM	GCM	Site	Mus acc no	Description
158 Cemetery wall	0	0	none	none	Medieval wall dividing lay cemetery from monks' cemetery. Ran from E of St Michael's Gate to SE corner of S transept. It was demolished 1858 (Welander 1991, 454), although by that time much of its length was incorporated into the backs of 17-20 College Green. Construction date not known. (Welander 1991, 454)
159 Cemetery wall	0	0	0	none	Medieval wall dividing monks cemetery from gardens to east. This wall was stated in some guides to be the E boundary of the precinct (eg Masse, Bells Guide 1898, p 103), but that was on St John's Lane. Welander claims the wall dates from c. 1460 (Welander 1991, 305), but this seems to be a guess based on the date of the Lady Chapel, which the wall is supposed to join. See also record 94. There seems to be very little evidence for this wall, and there is a suspicion that its line, begun as a speculation by ?Masse, has become fixed. It does not appear on Speed's map, 1610; some boundaries on Hall and Pinnells map (1796) may represent it.
160 Cross in churchyard	0	0	0	none	The 'Great College Cross' in College Green was taken down. 'In ...1646-7...the college cross was destroyed. This has been mentioned by no writer; and its site is unknown; but it stood probably in the area or burial ground on the south side of the cathedral. Its dimensions may be inferred from these circumstances - that six men were employed regularly for a week, besides two others for two days, in taking it down; and that a hundred and twenty-four loads of stone were hawled away to the quay' (Washbourne, J. Bibliotheca Gloucestrensis, 1830, cxvii, citing Corporation Records, Stewards and Treasurers' Accounts).

Record No	SAM	GCM	Site	Mus acc no	Description
161 Crypt, burial	0	0	none	none	In 1864 during works to heat the choir, workmen 'in excavating a sort of tunnel in the crypt, came upon a skeleton, which had originally been buried without a coffin, although with the bones were found remains of the boots of the deceased person, in a good state of preservation' The Builder, Feb 27 1864. - Gloucester Library, Austen 3485.
162 Refectory	0	0	none	none	The Norman refectory was excavated by Hope in the late 19th century. It was about 10 feet high, and divided down the middle into two alleys by a row of square Norman piers, upon which, and upon a series of corresponding pilasters along the side and end walls, rested a plain rubble vault. One of the responds on the south side retained its square chamfered abacus and a fragment of the springing of the vault. It was 6 ft narrower than the 13th century one, and ran the whole length of the N side of the cloister. (Hope 1897, 110). 13th century refectory still stood 1605; demolished by 1612 (Hope 1897, 108; Eward 1985, 21-2). The remains of the refectory are still visible from within the garden of Little Cloister House. (see also record no 138)
163 Mill	0	0	0	none	The abbey mill was on the site of present 2 Miller's Green. The earliest lease is 1597. One 'waterpen' was separately let in the 17th century to Richard Smith, tanner . The mill was on the southern block: a second block to the north was built 1716-27. The mill was later converted to a house. (Eward 1985, 34, 94, 306). See also record 145. Dimensions in Oliver, p 254.

Record No	SAM	GCM	Site	Mus acc no	Description
164 Chapter House, discovery of burials	0	0	0	none	During floor-laying in 1858, three stone coffins were found. Also uncovered were 13th-century inscriptions on the walls, commemorating various important people buried in the abbey (perhaps, but not certainly, in the Chapter House). One of the names was Robert, Duke of Normandy (Robert Curthose). The inscriptions were possibly made in the 13th century to augment the fame of the Chaworth family. (Anon 1858; Payne and Payne 1994; Welander 1991, 82)
165 Miller's Green, house site	0	0	none	none	A house next to and E of 2 Miller's Green, first mentioned 1622. Outline of bay window still visible in wall. On 18th century maps. (Eward 1985, 307).
166 coffin of Abbot Sebroke	0	0	0	none	During repaving of the choir in 1741 Abbot Sebroke's coffin was opened, with several others. A wooden crozier, later sold in 1774 in London, was taken from his coffin. This was probably a special funerary item made for the burial. (Dugdale 1849, p 536.) The crozier is in the Museum of Newcastle Society of Antiquaries, and there is a copy in the Cathedral Exhibition (1998). There is also a full-scale drawing (GILib, print index) which remarks that it was given to the Abbey of Old Windsor by Dr Miller, Dean of Exeter in 1764.

Record No	SAM	GCM	Site	Mus acc no	Description
167 Coffin of abbot Wygmore	0	0	0	none	During building of Kent screen in 1741, a stone coffin was discovered. This was uncovered again in the late 1700s during reflooring. The coffin was of stone with an integral headpiece; the coffin was so near the surface that 'it had no other covering but the old pavement'. The body was buried in a robe and leather boots. There was a silver-decorated crozier in the hand, and other symbols. This was thought to be the grave of John Wygmore, abbot 1329-1337, who was buried in the south side of the church near the entrance of the choir. (John Cooke, <i>Archaeologia</i> , ix, 1789, 10-13; Welander 1991, 162-3.) The crozier is in the Society of Antiquaries Museum, London: A.6 cat 113 : Minutes xxii 21 June 1787; 6 Nov 1788.
168 North of Lady Chapel	0	0	0	none	Trenches for new drains c. 1855 north of the crypt were backfilled with bones from the crypt. (Ashwell 1985, 5/20, 5/34; GCL MS54, 60-
169 Lancaut font	0	0	86/E	none	The 12th-century decorated lead font from Lancaut was described by Ormerod (1842) along with a similar font at Tidenham. Welander 1991, 507-8 for date and parallels. In 1890 the Marling family took it from the ruined church of Lancaut and restored it: it was given to the Cathedral by the Marlings in 1940 (Welander 1991, 508). The font was put on a new plinth in the Lady chapel in 1987, and the old plinth returned to Lancaut. The medieval tiles covered by the new plinth-base were recorded by Alan Norton: whereabouts of record not known (probably architects files).
170 1-2 College Green, water conduit	0	0	none	none	Water conduit on this site in and before 1665 (Eward 1985, 299)

Record No	SAM	GCM	Site	Mus acc no	Description
171 House, site	0	0	none	none	A house just east of the south walk of the little cloister stood in 1843: called Headmasters Hse in 1851 (BofH map), demolished 1862 (GCL MS53, p6). See Welander 1991, plate 23, print of 1776. Planned by St John Hope 1897, and Carter and Basire 1807.
172 House, site	0	0	none	none	House occupying in part the site of the south aisle of the infirmary building. Part was presumably adapted at the Dissolution. Description in Oliver p 245. It included an underground vault under the Little Cloister. Plan, St John Hope 12897, Carter and Basire 1807. Probably that part of 'Babylon' demolished in 1831 (GRO D936/E174), certainly demolished by 1843.
173 House, site	0	0	none	none	House occupied the site of the west end of the infirmary nave. It was Registrar's Office in 1843 (Causton). It incorporated in its south side the south arcade of the infirmary nave. The house was presumably converted initially at the Dissolution. Demolished 1860-62 (VCH iv, 288).
174 House, site	0	0	none	none	House known as the 'Organists House' 1843 (Causton). It was east of the Bishops Palace in what had been medieval garden ground. Part would have included the north aisle of the medieval infirmary.
175 Schoolroom, now gymnasium	0	0	none	none	Built 1849 on site of monastic dorter (VCH iv, 288). Listed as part of claustral buildings. Part of ecclesiastical exemption area. DCMS 1999, 72.
176 Infirmary Gate	0	0	none	none	Built by 1673, demolished 1766 (VCH iv, 286). Exact location not known, presumably on site of present gateway from Pitt Street.

Record No	SAM	GCM	Site	Mus acc no	Description
177 5 College Green	0	0	none	none	Site of house built in 18th century demolished 1891 when College Street was widened. Cellar discovered 1977 - see record no 83.
178 Rope Walk	0	0	none	none	Williams rope walk with two small buildings on map of mid 18th century (Eward 1985, 311 and map) east of the Grove
179 Tank	0	0	none	none	Brick water tank/cistern about 6ft square and 6 ft deep, entered by hatch, noted 1984 in garden west of 4 Millers Green. Not recorded. Part of 19th century water supply?
180 Pump, Millers Green	0	0	none	none	Pump in Millers Green newly erected in mid 17th century (Eward 1985, 69) exact position not known
181 Palace Cottage Kings School	0	0	none	none	19th-century stables and cottages now part converted to classrooms and offices. DCMS 1999, 78
182 Bishops court	0	0	none	none	House for Bishop built 1954 (VCH iv, 288)
183 15A St Johns Lane	0	0	none	none	Piece of abbey wall on street frontage. Plot not built on in 1796.
184 between 13 and 15 St Johns Lane	0	0	none	none	Piece of abbey wall on street frontage. Also possible site of post-medieval building (Hall and Pinnell 1796)

Record No	SAM	GCM	Site	Mus acc no	Description
185 Church House, east range	0	0	none	none	E wing of 17th century Deanery described in Oliver 267-9; extended as far as southern block (record no 125). Removed by mid 1730s when a brick coach-house and stable were built on part of its site (VCH iv, 287); these shown on Hall and Pinnell 1796.
186 Statue	0	0	0	0	Statue of Queen Anne carved by John Ricketts stood in College Green 1839-1865 then moved to The Park. Causton (1843) shows is approx on site of present war memorial, College Green. VCH iv, 251.
187 2-6 College Street	0	0			During the rebuilding of 2-6 College Street in the 1890s. 'Peat' deposits were found up to 6m depth. A skeleton of a man was found upright. In building the addition to [5 College Green] rows of skeletons were discovered three or four deep. No traces of wood or metalwork. Rhodes, J 2000, 30. GRO D2593, Cathedral Approaches Co.
188 Coach house	0	0			Coach house NE of Dulverton House: DCMS 1998, p 68