

# Gloucester Cathedral South Transept and South Choir Elevations 1999



Gloucester Cathedral Archaeological Reports 99/A and 99/B

GLOUCESTER CATHEDRAL  
SOUTH TRANSEPT AND SOUTH CHOIR  
CLERESTORY ELEVATIONS 1999

by

Carolyn Heighway

with minor revisions made in 2007

Past Historic  
6 Church Street  
Kings Stanley  
Stonehouse  
Gloucestershire GL10 3HW

Gloucester Cathedral Archaeological Reports 99/A and 99/B

## THE SOUTH TRANSEPT, EAST ELEVATION

Archaeological record no 99/A  
Architects record no 1900-4076  
This report was slightly revised in 2007.

The south transept retains 12th-century turrets, but the windows were entirely rebuilt and the interior altered in the 14th century. Buttresses were also added for the support of the tower (Fig 1). These may have been added in the 15th century, although major interior buttressing is integral with the 14th-century work and must reflect concern about the stability of the Norman tower (Wilson 1980, 133-4).

Figure 1 shows the suggested dates of the different parts of the structure. The northern window is smaller than the southern one, and this reflects the whole design of this façade in the 12th century, which emphasises the arches to the eastern chapels at the expense of the entrance to the ambulatory (Wilson 1985, 72).

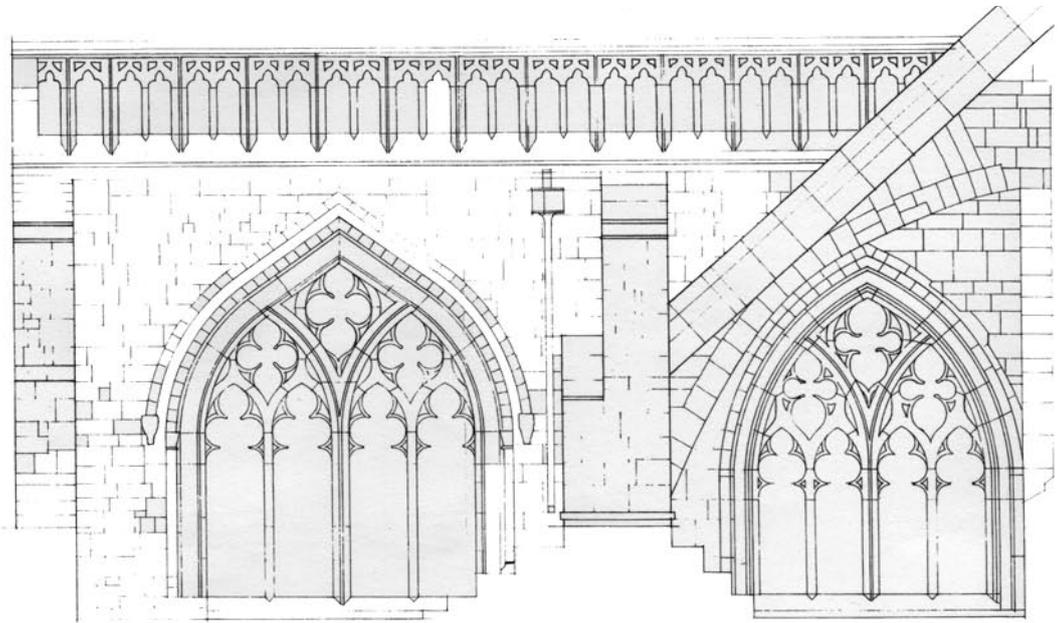
The upper coursing above and south of the east side southern window slopes slightly (though the drawing shows it as level courses). This is ultimately the result of the tilting south of the 12th-century turret.

The southern window on the east side is made up of re-used Romanesque material, in the same way as the south window of the south transept (Ashwell 1985). Above the window is a band of chevron, and above this a hood-mould constructed of re-used rolls (Figs 1b and 2; plate 1). The

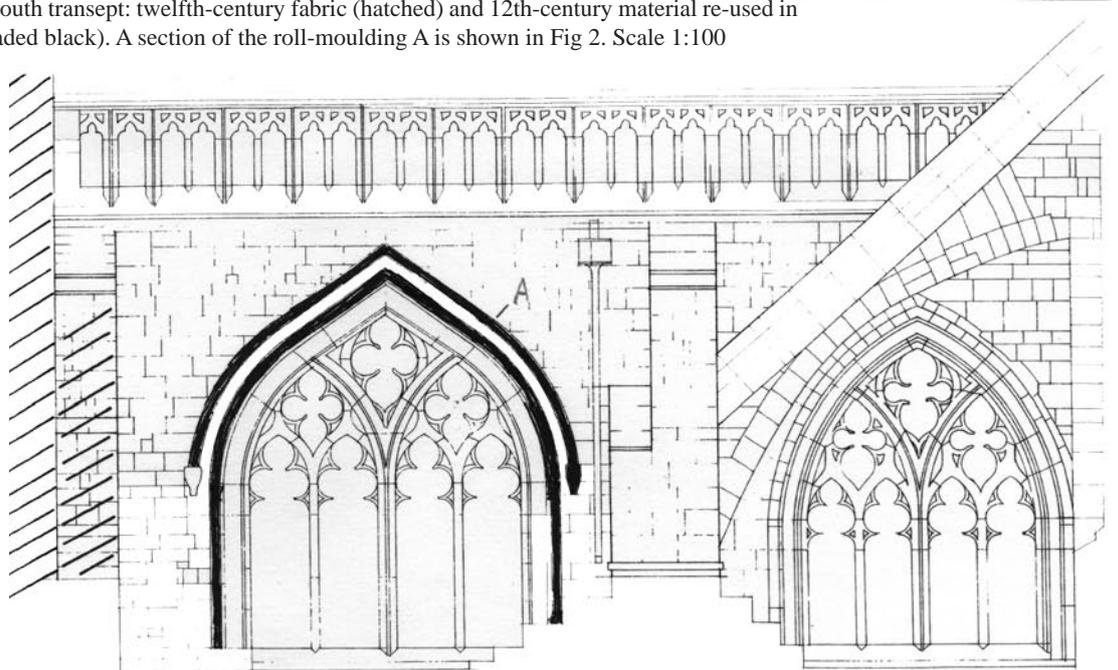


Plate 1 East side of south transept in 1999, after repairs. The remains of the Romanesque passage at clerestory level can be seen at the base of the buttress. Photo: Alan Norton.

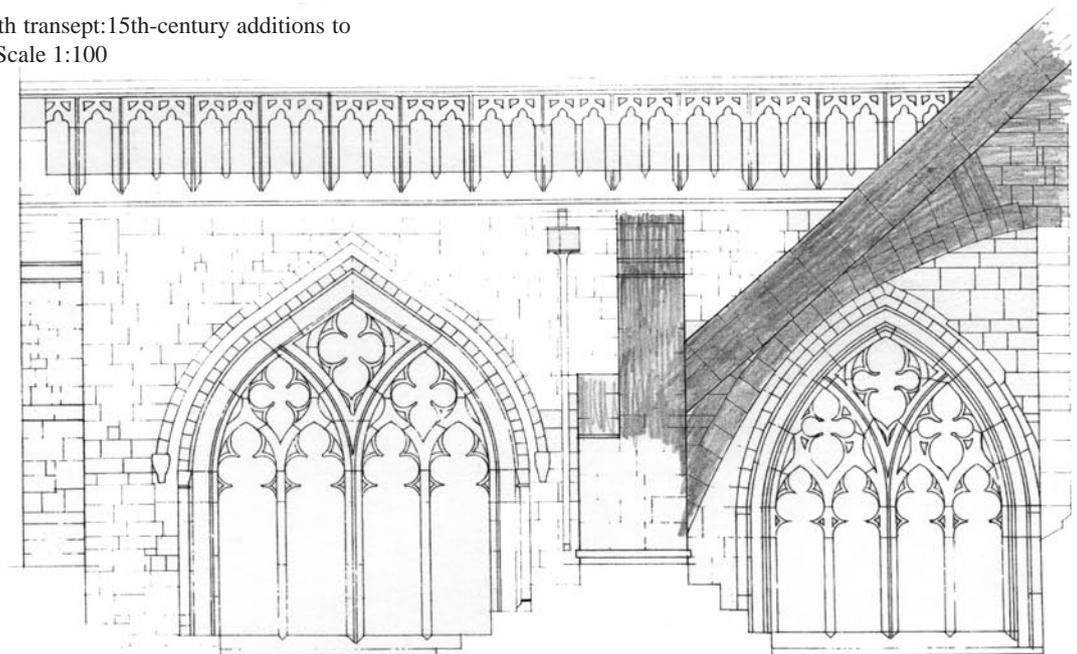
1a The east side of the south transept: drawing by Stainburn Taylor. Scale: 1:100

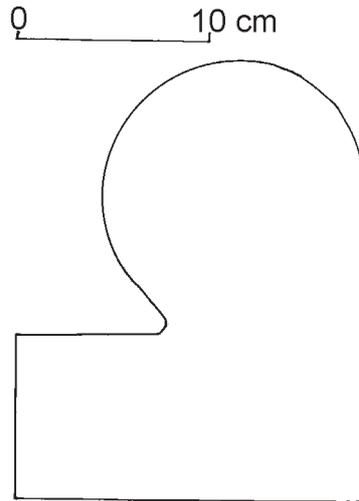


1b East side of the south transept: twelfth-century fabric (hatched) and 12th-century material re-used in the 14th century (shaded black). A section of the roll-moulding A is shown in Fig 2. Scale 1:100



1c East side of the south transept: 15th-century additions to the elevation (shaded). Scale 1:100





2. 12th-century shaft moulding re-used in hood-mould of east transept window (see Figure 1c, at A)

nook-shafts are also 12th-century reused material. The window has two beast-head label stops: the one on the south is thinner and finer than the other. Its snout has been replaced in Bath stone. This head may be a 14th-century version of the northern one. The latter looks fatter and much more worn, perhaps this is another example of 12th-century detail being reused in the 14th.

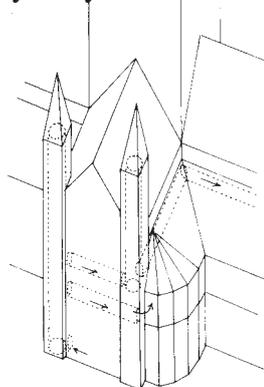
On the north side of the south-east turret, partly hidden by the parapet, is a door which in the 12th century opened onto the roof leads. Below this, a buttress in the angle of the south-east turret and the south wall of the transept has, on its north face, the remains of a doorway which represents the original 12th-century clerestory passage (Fig 3 and Plate 1). Both these doorways are important evidence for the 12th century arrangement (Wilson 1985, 72).

The buttress in the angle of the south-east turret and the south wall of the south transept is, according to Christopher Wilson, the remnant of the thick Romanesque clerestory wall; it retains a length of string course which Wilson regards as Romanesque, and this buttress must therefore be basically Romanesque fabric (Wilson 1985, 70-71), although it must be extensively refaced, because its north side is bonded into the 14th-century fabric of the east elevation.

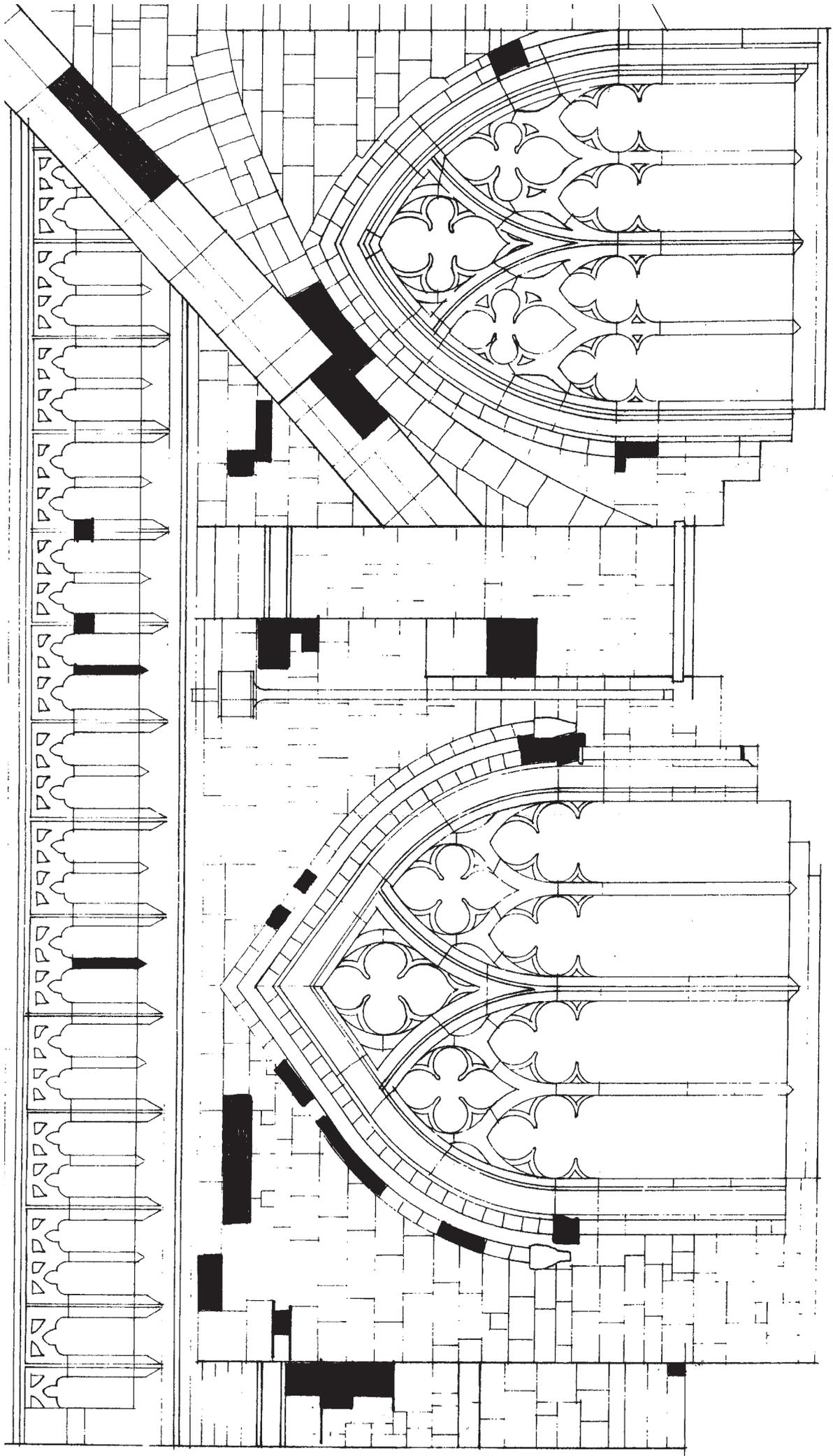
Christopher Wilson makes the point that the re-used Romanesque material in the 14th century transept work is not late 11th century (Serlo's build) but uses chevron and therefore belongs to c. 1130. Serlo's work must therefore have been remodelled in the early to mid 12th century (Wilson 1985, 72-3).

The addition of the tower in the 15th century has been thought to be the occasion of the addition of buttresses built into the wall face (Figure 1c). In face the date of these buttresses is still in question: on the whole it seems likely that these buttresses were inserted in the 14th century (Bagshaw 2003, 9-11)

The east face of the south transept carries much stone replacement of the 18th and 19th century: they include a masons initials (H H..... Sept.....) [slide 20426].



3 Diagrammatic reconstruction of Romanesque wall passages in south transept: after Wilson 1985, p 72



4 Elevation of east side of south transept, showing stone replaced in Lepine stone. Based on drawing by Pascal Mychalysin. Scale 1:50.

The interior of the south transept and the choir were inspected by R K Morris of Warwick University, and profiles extracted to be added to the Warwick University collection of stone mouldings. These profiles were taken only on the inside of the buildings. A list of these follows.

#### *MOULDING PROFILES AT WARWICK UNIVERSITY*

The list of profiles drawn by Richard K Morris as a result of the scaffolding access in the presbytery, choir and S transept is as follows. WMA = Warwick Mouldings Archive drawing number reference. All are full-size and interior features, unless stated otherwise. NTS = not to scale (sketch only).

##### *Presbytery/Choir*

Vault, main rib WMA GLO0210  
Ditto, intermediate rib, WMA GLO 0211  
ditto, minor rib WMA GLO0212  
Vault springer, capital, WMA GLO0213  
Blind tracery above crossing arches, choir side, main mullion, WMA GLO0219  
minor mullion, WMA GLO0220 (both NTS)  
E window, exterior frame, WMA GLO0226; exterior hood mould GLO0227

##### *South transept*

Vault, main rib WMA GLO0505; minor rib, GLO0506;  
Clearstorey windows, E side, window frame, capitals; main, GLO0513; intermediate GLO0514; minor, GLO0515  
S window, mullions: main, GLO0516; intermediate, GLO0517; minor, GLO0518 (all NTS)

##### *Crossing arch to south transept (all these NTS)*

Pendant corbel WMA GLO0540  
Arch (at SW pier) WMA GLO0541  
Bridge arch WMA GLO0542  
'Kingpost' on the bridge, horizontal section WMA GLO0543

#### *SOUTH TRANSEPT REPAIR HISTORY*

Repairs cited in the Clerk of Works Day Books (Cathedral Library) include the following:

In 1891 the south-east turret of the south transept was restored taking about 18 months.

In 1906 August the south-west turret was started; in December 1906 the gable end was also repaired, finishing August 1907 (CWB 4). In 1931 the tracery of the south window was repaired, because iron tie bar corrosion had caused damage (CWB 9). The restoration of the south front of the transept in 1979-83 has been recorded by Ashwell (Ashwell 1985). Ashwell's drawing (his fig 1 p 116) shows the extent of the new Lepine stone then put in.

I have been able to find no specific mention of repair work to the east side of the south transept.

Waller's report of 1855 (Waller 1855) says:-

The exterior stonework [of the] south transept is more dilapidated [than in interior] especially the south front the ashlar of which as well as the window tracery parapets and other moulded work is much perished ... the oldest work is in the best state of preservation...

Records do not relate exactly when the parapets were renewed but they were probably entirely replaced by about 1890.

### *STONE REPLACED IN 1999-2000 BY PASCAL MYCHALYSIN*

The stone marked on Figure 4 was replaced in Lepine stone. It included ten replacements of Romanesque rolls used as hood moulds, two replacements of Romanesque chevrons, and three replacements of capitals.

The replaced capitals were both those on the southern window and one on the northern. The new stones followed the geometry of the old stones. The two on the southern window had an hexagonal cap (like those inside the window). The two capitals however showed substantial differences in measurements. The top chamfer of the capital cap was shallower on the southern example, steeper on the northern. The northern window had an unfinished square cap on its southern capital, as can be seen on the other surviving old capital of the same window (though on this one the stone cutting of the chamfer was finished). the unfinished capital was replaced as found with an unfinished square cap.

The buttresses and ashlar showed many different varieties of weatherstones including Minchinhampton and probably different types of peagrit, as well as a fine-textured stone reminiscent of Caen stone. The raking buttress showed very heterogeneous geology.

The Victorian repairs on the tracery of the southern window appears to be of Monks Park stone.

ARCHIVE 99/A

### *COLOUR SLIDES*

slides 20418-20432, 20446-20447

### *COLOUR PRINTS*

film GL62 frames 24 onwards

## CHOIR SOUTH ELEVATION

Archaeological project no 99/B

Architect's record number 1900/4076

The choir was built 1337-67, and involved the rebuilding of the pre-existing Romanesque choir. Though created anew in the Gothic style, the choir south elevation re-used much Romanesque material. Reused ashlars can be seen with Romanesque masons' marks, and the jambs of the principal windows are re-used Romanesque cushion capitals and shafts, some using Romanesque bases also (Fig 1). The jambs terminate at the base in different ways. Windows SVI SV and SIV (the first three from the west) have no 12th century reused bases: the shaft simply ends at a plain ashlar. Windows S III and S II have two slightly different Romanesque bases, at different heights.

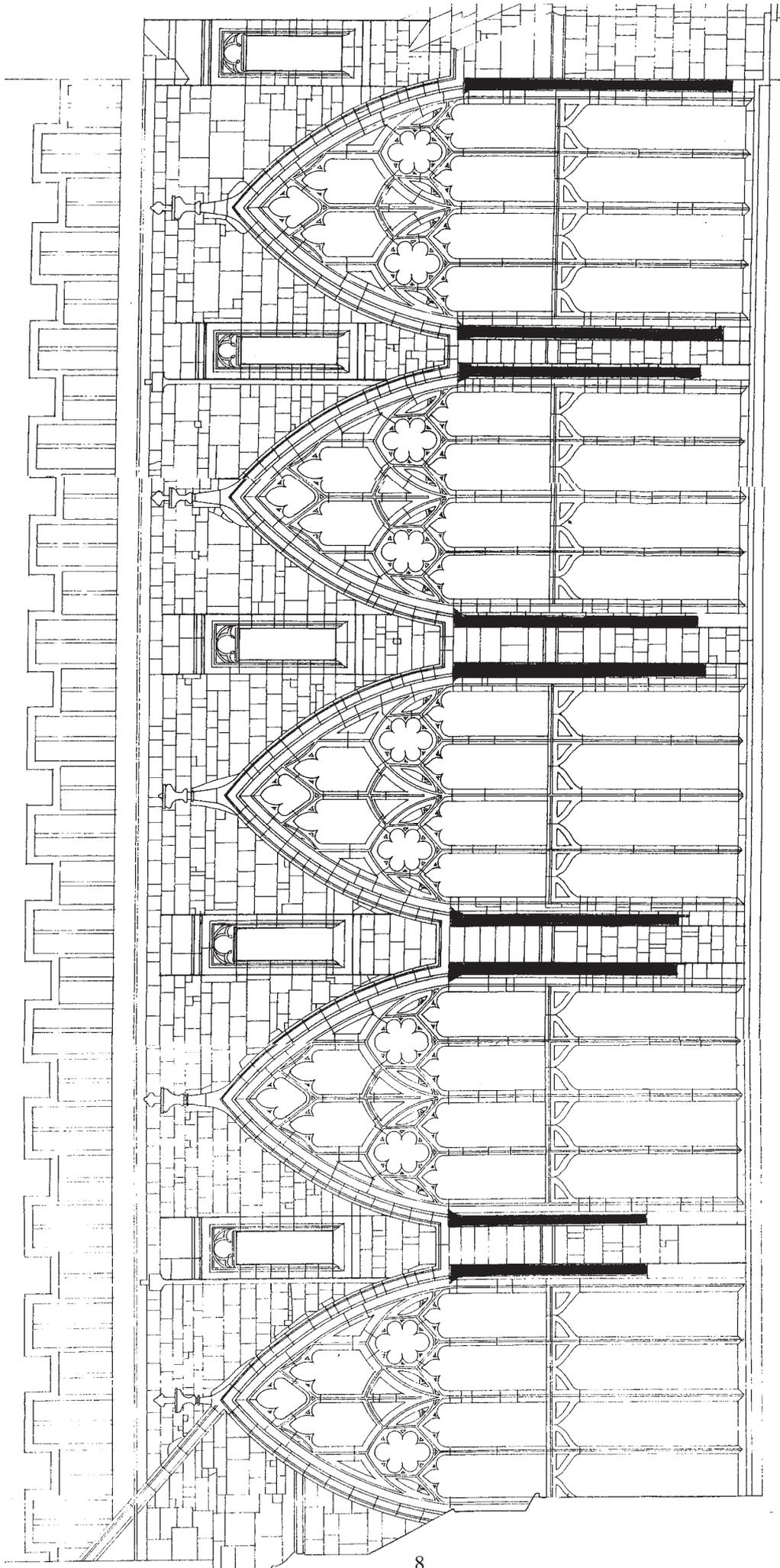
The eastern capital of window S IV (a Victorian replacement) has in turn been replaced. A short report on the capital was done by Richard Bossons, stonemason. His reduced templates are shown here (Fig 3). The shaft diameter is 16 cm which, according to Christopher Wilson, matches the shaft diameter of the blind arcading which once decorated the choir (Wilson 1985, p.71). All the re-used Romanesque shafts in the choir elevation are this size (by contrast, the shafts of the blind arches in the 12th-century south radiating chapels are of diameter 19 cm).

Two of the choir roof-space windows on the north side have jambs made of re-used 12th-century mouldings, adapted to fit (GCAR, ii, 93/H). Such reuse has not been noted on the same windows on the south side.

Many of the plain ashlars in this elevation are also re-used Romanesque pieces; many



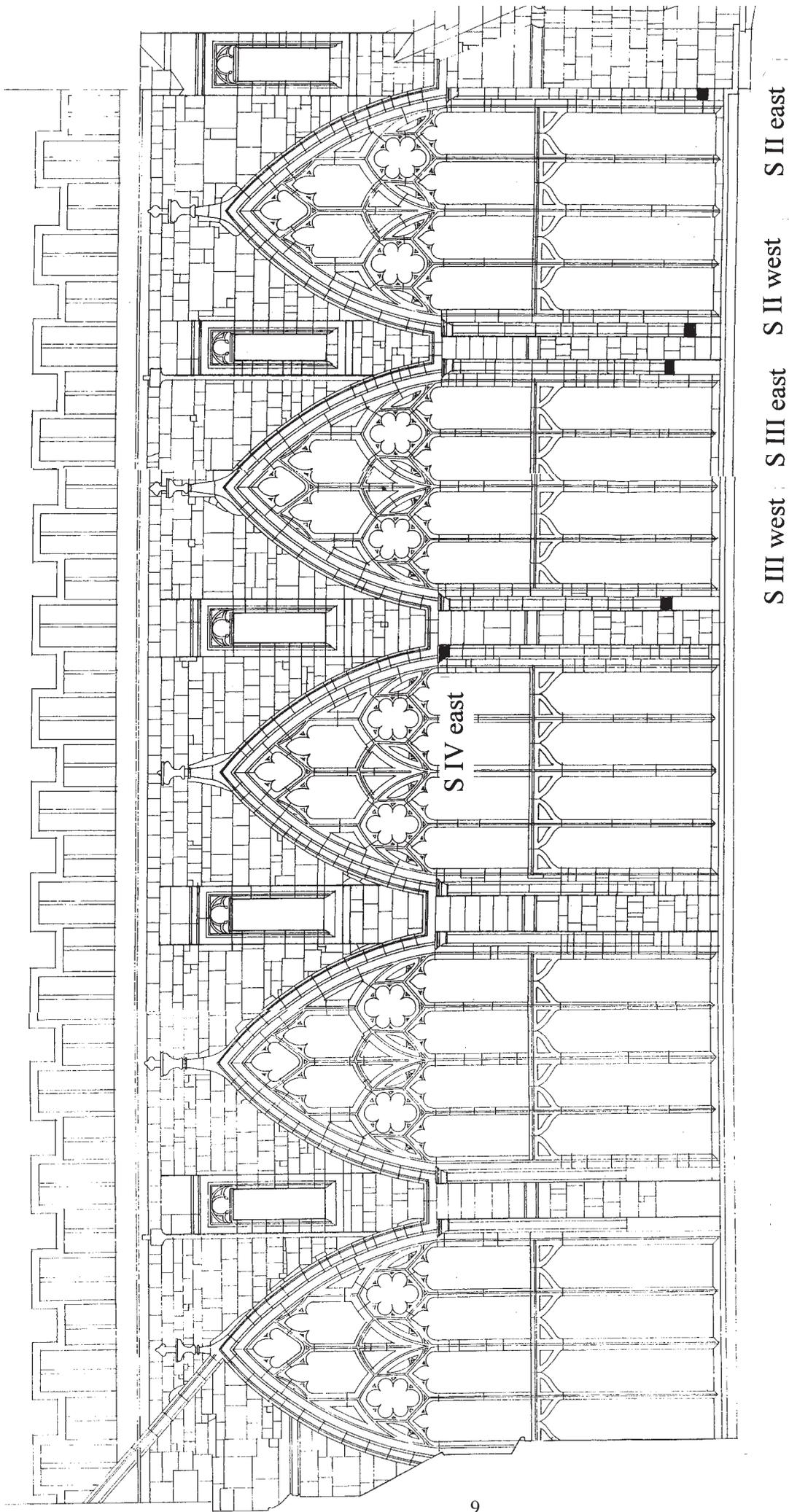
Plate 1. S elevation of choir clerestory after restoration in 1999. Photo: Alan Norton.



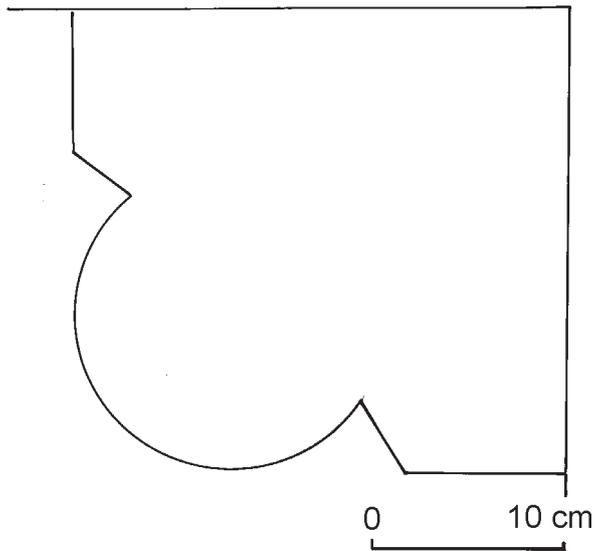
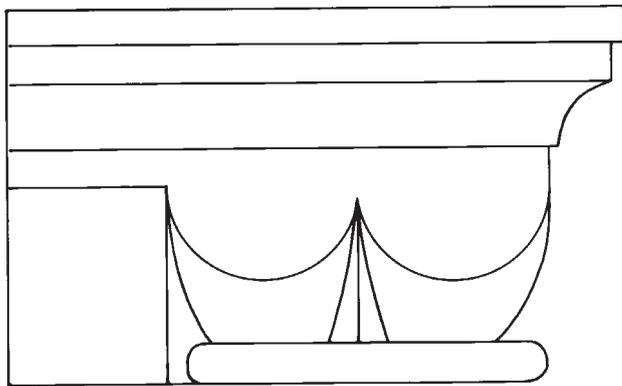
GLOUCESTER CATHEDRAL  
SOUTH CHOIR ELEVATION  
RE-USED ROMANESQUE MATERIAL

QUIRE SOUTH ELEVATION

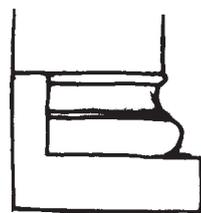
1 South choir elevation: reused Romanesque material (shaded black) scale 1:100



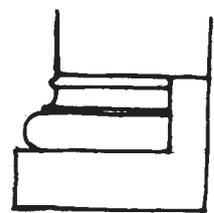
2 South choir elevation: recorded Romanesque mouldings. S IV east - position of Romanesque capital (see figure 3) S III west and east, S II west and east - position of Romanesque bases illustrated in figure 4.



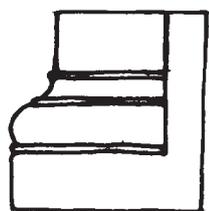
3 South choir elevation: window S IV (3rd window from the west), east side, Romanesque capital and shaft, section of shaft, profile of capital. Drawings by R Bossons



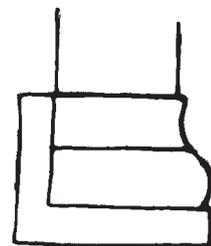
SIII east



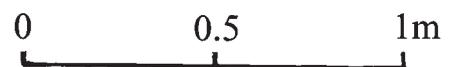
SII west



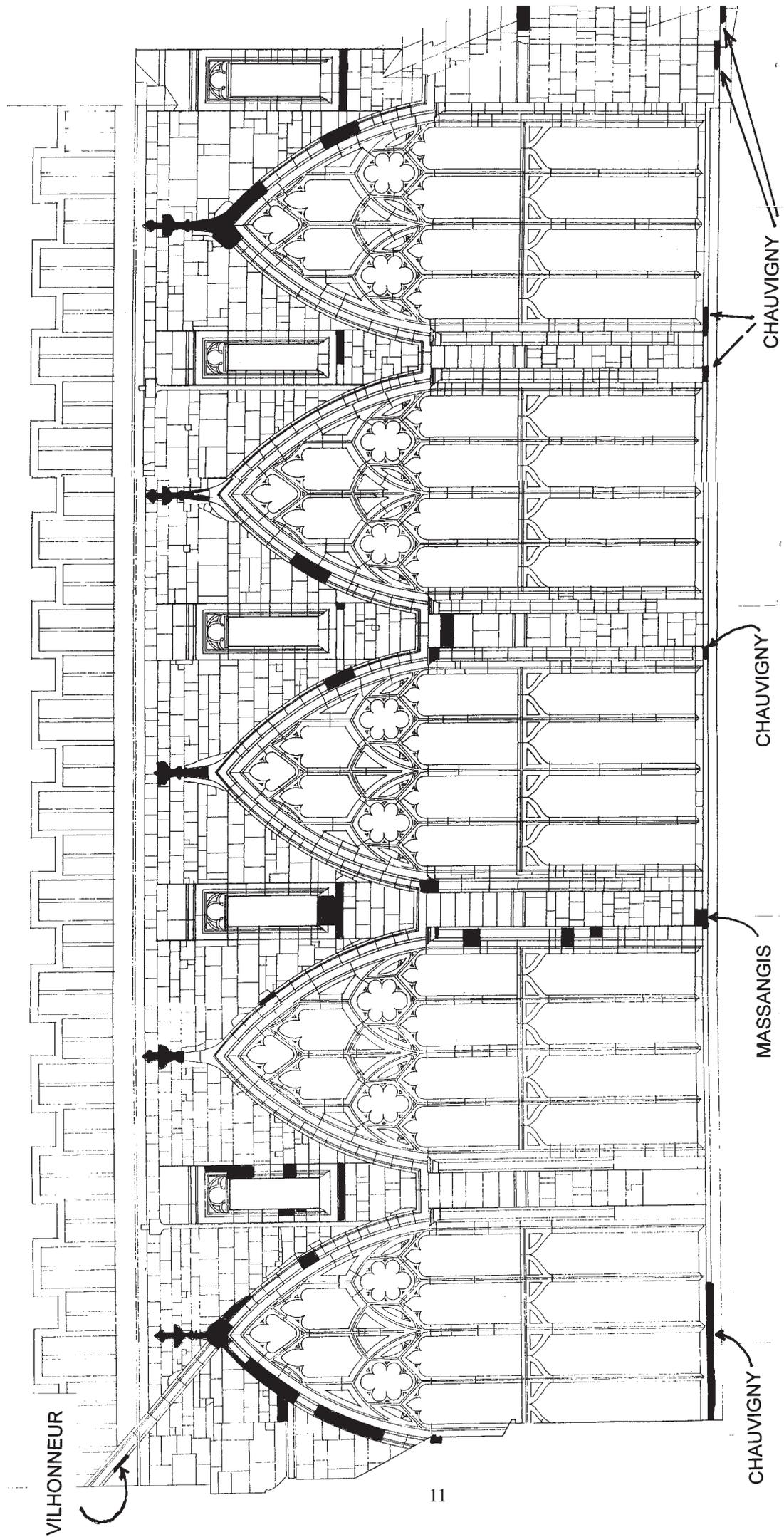
SIII west



SII east



4 South choir elevation: windows S III and S II; Romanesque bases, drawing by S Bagshaw.



5 South choir elevation: stone replacement, based on a field drawing by Pascal Mychalysin. The replacement stone was Lepine, except where indicated. Scale 1:100

carry Romanesque masons' marks (inf. P Mychalysin). The re-use of stone from the late 11th century building would also explain the frequent use of coursing with narrow stones, as opposed to the larger blocks more usual in 14th-century work.

The choir would originally also have had parapets of 14th century date and design, but these are vulnerable to weather and they have been many times replaced.

The tower was built 1450-60 (Welander 1991). At the west end of the elevation is an area of differently coursed masonry, with a clear vertical join, presumably where the tower and its buttresses were inserted (Fig 1).

A detailed stone-type analysis was not done of this elevation. It is evident that major Victorian works in Bath stone included the replacement of nearly all the tracery of the 14th-century windows, and some of the Romanesque capitals at the top of the window jambs. The stone used in for the 12th-century details is typical Lower Freestone from the Inferior Oolite ('Painswick' stone).

### *REPAIR HISTORY*

All the south choir clearstorey windows were repaired in 1934. Work began, occasioned by the fall of masonry from a window mullion, in March 30 1934. The fourth from the east end (window S V) was repaired first (CWB, Book 10, 27 April 1934), then the fifth (June 1st 1934), then the third (window S IV) (28 Sept 1934), then the second (window S III) (begun 15 Feb 1935), and window S II on 22 March 1935. S II and its partner N II on the opposite side were done at the same time as repairs to the Great East Window (I).

The last work was done on the parapets in 1984. Previous to that, there were major repairs in the late 19th century (see GCAR ii, 94/F).

### *STONE REPLACEMENT IN 1999-2000*

The limited amount of stone replacement was carried out in Lepine stone, which the Cathedral have been using since 1972. There are now some difficulties in obtaining Lepine and a few examples of other French stone have been used, as shown on Figure 5.

### ARCHIVE 99/B

#### *Colour slides*

20433	(02)	Choir, S elevation, window SIV west capital
20434	(03)	Choir, S elevation, window SIV east capital
20435	(04)	Choir, S elevation, Romanesque shaft, no base; window SV (?or SVI)
20436	(05)	Choir, S elevation, window SIII east base reused Romanesque
20437	(06)	Choir, S elevation, Romanesque shaft, no base; window SV (?or SVI)
20438	(07)	Choir, S elevation, Romanesque shaft, no base; window SVI (?or SV)
20439	(08)	Choir, S elevation, Romanesque shaft, no base; window SVI east side
20440	(21)	Choir, S elevation, window SII view from south
20441	(22)	Choir, S elevation, window SII, SIII, SIV (scaffolded) view from south-east
20442	(23)	Choir, S elevation, window SII east base
20443	(24)	Choir, S elevation, window SII west base

#### *Colour prints*

GL62 32A	south choir elevation: top scaffolding lift view north-east
GL62 33A	south choir elevation: west bay of south elevation: bracer of tower and top of first window
GL62 34A	south choir elevation: top scaffolding lift view north-east

#### *Black and white prints*

taken by S Bagshaw

## BIBLIOGRAPHY: PROJECTS 99/A AND 99/B

- Ashwell B 1985 'Gloucester Cathedral: the south transept: a 14th-century conservation project' *Antiquaries Journal* 65, 112-20
- Bagshaw, S 2003 *The South Transept of Gloucester Cathedral, 2002-3, archaeological recording*: GCAR 2002/C
- CAB *Chapter Act Books*, Gloucester Cathedral Library
- CWB *Clerk of Works Day Books*, Gloucester Cathedral Library
- GCAR Gloucester Cathedral Archaeological Reports (manuscript reports held by Consultant Archaeologist: copies in Cathedral Library)
- GRO Gloucestershire Record Office
- MS53 Manuscript architects Log Book in Gloucester Cathedral Library
- 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 W 1911 'Gloucester Cathedral Tower' *Trans Bristol and Gloucestershire Archaeol Soc* 34, 175-94
- Welander D 1991 *History Art and Architecture of Gloucester Cathedral*
- Wilson C 1980 *The Origins of the Perpendicular Style and its development to circa 1360*, unpublished PhD thesis, University of London
- Wilson C 1985 'Abbot Serlo's Church at Gloucester: Its Place in Romanesque Architecture' in British Archaeological Association, *Medieval Art and Architecture at Gloucester and Tewkesbury* (1985)
- Wilson C 1985 'Serlo's church at Gloucester 1089-1100' in British Archaeological Association Conference Transactions 7, *Medieval Art and Architecture at Gloucester and Tewkesbury*, pp52-83

## ACKNOWLEDGEMENTS

The Cathedral Architect, Ian Stainburn, provided the specifications and plans which formed the basis for this project. Most of the recording described above is indebted to the skill and knowledge of the Cathedral masons who observe and provide records of their work at the Cathedral. For this project particular thanks are due to Alan Norton, Richard Bossons, and Pascal Mychalysin. Additional recording by Steve Bagshaw.