

THE CATHEDRAL ARCHITECT'S REPORT 2011

Salisbury Cathedral Chapter House:

Its Proposed Conservation and Repair



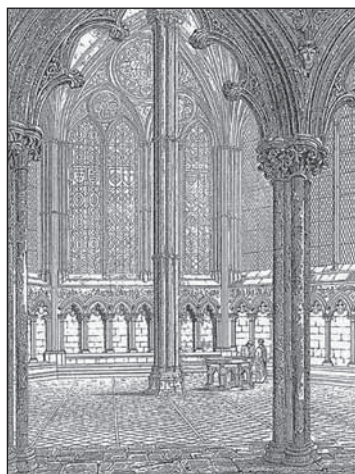
17th century view showing crenellations (Hall)

The sequence of the ongoing Major Repair Programme at Salisbury Cathedral was reviewed last year, the Chapter House being identified as the next project for conservation and repair. The building was constructed in the mid-13th century, probably between 1250 and 1266. A 17th century view shows a crenellated parapet, running southwards from the stair turret over the west, south-west and southern elevations. These were probably added in the 14th century, removed before the end of the 18th century and replaced with a moulded coping similar to that on the rest of the parapet.

During its long history, the Chapter House has been heavily restored, notably in the latter half of the 19th century by H. Clutton and G. G. Scott, part of the work addressing structural problems

identified in Sir Christopher Wren's survey of 1668. Wren's report described the arrangement of eight radial tie bars and its failure, resulting in spreading vaults and cracked walls. Historic deflection of the ashlar and string courses remains today, about 120mm at its most pronounced above the centre of the east window.

The central pier was rebuilt, its medieval base, a section of shaft, the foliated capital and associated ironwork being reconstructed as an antiquarian exhibit, presently displayed in the south-west corner of the cloister. To replace the restraint provided by the radial ironwork, the thrust from the roof and the vaults was contained by an extension of the buttresses (apart from that to the south of the vestibule). It is these extended buttresses that give the greatest cause for concern today, recent stone falls having revealed corroding ironwork the extent of which has now been established by the use of a metal detector. Ferrous



The interior prior to 1821 (Britton)

cramping was detected on all extended buttress faces, to the capitals of some shafts and to the buttress finials. An embedded iron ring was found running between the buttresses, set behind the ashlar course at the head of the windows. No documentary evidence of this ring has appeared but those involved in a sporadic campaign that ran through the 1970s and into the 1980s recall its treatment on north facing bays.



Corroding cramps causing damage to buttress masonry

The masonry is generally cleaner and subject to less decay than has been found on the cathedral itself. The thin-walled parapet is built using through stones, the design varying from that of the main body of the cathedral with a simplified and more robust moulding detail. Evidence of mis-alignment appears in each bay but is not structural, being attributed to workmanship during setting out of the original construction. This has also resulted in wide joints, in-filled with terracotta tile slips predominantly located between springing stones.

The 19th century extension of the buttresses has resulted in a patchwork of jointing, with a profusion of concealed ferrous cramps on all three faces. Many are corroding (they are not encased in lead) and bursting the surface of surrounding masonry. It is proposed to take out all ironwork above the second scaffold, those below being relatively accessible for future replacement as the need arises.

Rusting iron fixings cause problems elsewhere too, a buttress finial falling last year as a result. Cracking is evident in several other places. The gargoyles, carved in Portland stone, also date from the 19th century restoration, being designed to discharge beyond the buttress extensions. One is cracked through its body and inadequately supported by ad hoc slings from an iron bar. Its possible repair is presently being evaluated.



Setting out resulting in mis-alignment

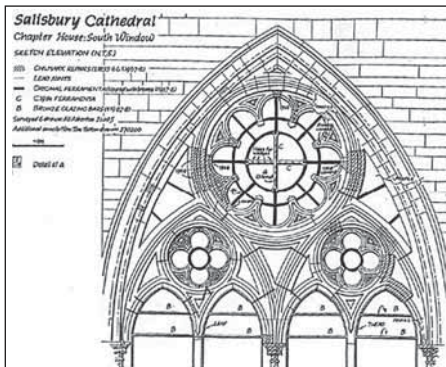
The 1970s campaign was instigated by the need to address the glazing and included works to the lead roof and its original carpentry, undertaken during 1973-1975. Originally filled with stained glass, the windows were clear glazed in the early 19th century; the last of the medieval glazing may be seen in John Britton's engraving of 1821. Fragments

survive in the cathedral windows. Ward and Hughes glass replaced the clear diamond quarries in 1861 but by the mid twentieth century the cathedral's Victorian work in turn fell victim to changing fashion and the stained glass in two of the Chapter House windows, on the west and south-west elevations, was destroyed before public outcry halted further loss. Despite a subsequent remedial programme, the rhythm of alternating circle and vesica designs has been disrupted. To mitigate this deficiency a new window, amalgamating the circle and vesica designs was produced by the cathedral's glaziers for the east window, leaving the window in the west elevation as the only one to contain plain glass today.

As a result of earlier campaigns, the glazing to the four southernmost bays is in varying condition. Timber frames remained in the lancets of the south-west window only. These were re-introduced in the south facing window in 2005, following the original medieval intention.

The rest of the windows are presently glazed directly into masonry rebates, the joint being covered by a thick mortar fillet, almost universally cracked and off key. Glazing in the south-east window has bowed since re-leading in the 1970s, being insufficiently tied to the internal ferramenta and is a priority for re-leading.

Michael Drury,
Cathedral Architect



The south window recorded in 2005, showing original ferramenta and later repairs.



Bowing to octofoil in south-east window