

Worcester Cathedral: Library Ceiling Repairs (1 of 5 projects funded)

Awarded £80,000 in July 2014

The need

The Cathedral Library, a working library used by academic researchers and scholars, sits directly above the full length of the south nave aisle and houses rare documents and manuscripts which had until recently been at risk from leaks and plaster falls. The water was entering around the flying buttresses which pierce the roof vault. This fault had already been remedied at the time the fund was launched, but the cathedral had no funding for the repairs to the plaster ceiling needed to complete the project. Several sections had collapsed and full replacement was required as others could have fallen at any time.



General view of Worcester Cathedral Library before the work
Photo credit: Chris Romain Architects.

Outcomes

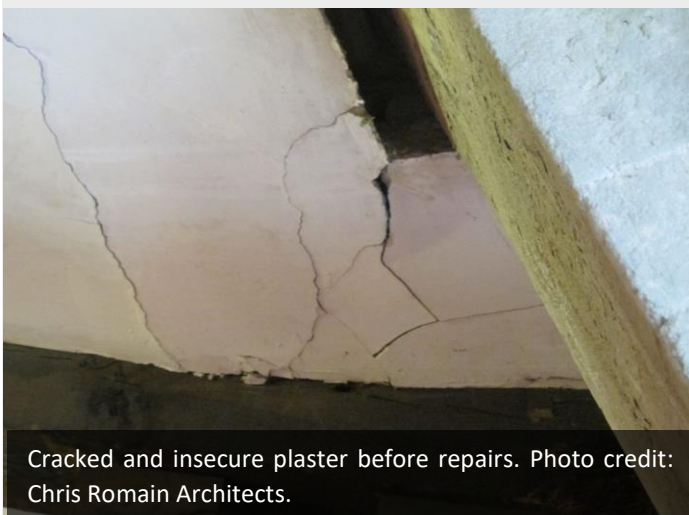
The ceiling is now secure and watertight. This removes the risks to the library environment and users from falling plaster: the library is safe and open, with better preservation of historic items and increased community interest (the collection includes manuscripts dating from the 7th century, the second largest collection of medieval manuscripts in any cathedral in the United Kingdom, many early printed books, music from the Middle Ages to Sir Edward Elgar, historical documents and royal charters). This work also enabled the leverage of a small amount of funding for preservation work on historic documents. The cathedral can now focus on other environmental factors that need addressing in the library, such as the heating. This would not have been possible without the initial repair work.

Economic and social impact

The cathedral operates its own in-house works team; the repairs have helped to support two additional jobs within traditional building techniques and buildings archaeology. The works have enabled the team to grow and develop additional skills which will be helpful for future projects. They have also made the library a more inviting environment for visitors. The social impact of the work has included a special community celebratory service in 2018 to celebrate the works and the skills involved in all the cathedral's First World War projects, which was also tied in with First World War Centenary commemorations.

Works completed and timescale

The replacement ceiling was like-for-like work, with traditional oak laths and three coats of lime plaster, finished with three coats of limewash.



Cracked and insecure plaster before repairs. Photo credit: Chris Romain Architects.

The Cathedral

Worcester Cathedral was built between 1084 and 1504 and represents a range of architectural styles from early Norman work through to Perpendicular. It is the burial place of King John. Originally a monastery, its library was not plundered at the Dissolution as were so many other cathedral libraries, but the cathedral was badly damaged in the English civil war, and as a consequence a major programme of rebuilding was required after the restoration of Charles II. From the late 17th century there were campaigns to restore parts of the cathedral, but the Victorians from 1864-75 carried out the largest of these.

Worcester Cathedral: Great East Window Repairs (2 of 5 projects funded)

Awarded £250,316 in November 2014

The need

Great East window, a ten-light arrangement by John Hardman and Co, installed in the 1854/75 restoration campaign and set in 19th stonework, was showing structural instability and letting water in. Its lead was deteriorating resulting in numerous areas where panels are bowing. Where the bowing was most severe it had caused some of the ties to snap so that they were no longer offering support. The waterproofing cement had started to become friable, crumbling and pushing its way out from underneath the lead flanges. If allowed to deteriorate further, water ingress and severe paint loss would have become a major problem and could start to affect the internal fabric of the building as well as threatening loss and significant damage to the window.

Outcomes

The repairs rectified the issues which had resulted from over a century and a half of weathering. This included, intricate re-detailing to the glass illustrations, repairs to the glass which had become worn, and repairing of the iron fittings which had severely decayed. The window no longer leaks and the window is now more secure.



The Great East Window. Photo credit: Acanthus Clews Architects.

Economic and social impact

The funding helped to support jobs within traditional building methods including stained glass conservation and leadworks. Having the funding has also meant that the cathedral has been able to reallocate funds to other urgent projects. The stained glass work generated considerable interest from the public. In 2018 a ceremony of celebration was held to celebrate the works and the skills involved in all the cathedral's First World War projects, which was also tied in with First World War Centenary commemorations.



Great East Window detail. Photo credit: Acanthus Clews Architects.

Works completed and timescale

The restoration of the east window was carried out by the distinguished Holy Well Glass studio, based in Wells, supported by the cathedral's in-house stonemasons. The official unveiling and re-dedication of the window was carried out during the Mothering Sunday service in March 2016.

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Worcester Cathedral: Roof Repairs (3 of 5 projects funded)

Awarded in £116,440 in March 2015

The need

The need for urgent repairs to the roof covering, rainwater goods and structure of the west slype, the late-12th century passage leading from the west end of the cathedral to the cloister, was identified in 2011. A second storey had been added to the slype in the 1370s, and the present roof was in slate. Recent inspections had highlighted a significant deterioration in the condition of the slates and associated rainwater goods. Local failures in roof slates had allowed leaks to occur in multiple locations across the roof. Associated roof timbers were saturated with decay evident, and water was also penetrating the stone vault. The area is important to the functioning of the cathedral: the roof space above the slype was used for storage, including important medieval sculptures, and the ground floor houses the cathedral shop. However due to other urgent repair works elsewhere in the cathedral it had not been financially possible to carry out these repairs to date.



West slype roof. Photo credit: Acanthus Clews Architects.

Outcomes

The repairs have ensured that the area is watertight, preventing leaks from causing further damage. This has meant that it is a much warmer and safer environment for staff visitors. The five projects funded have created more interest in the cathedral and being a catalyst for further investment which would never have been secured without these grants. This allows further repairs and development, making the cathedral being more sustainable for future generations.

Economic and social impact

The project supported jobs in roofing, leadwork and rainwater goods repairs. More investment in the cathedral will result in more tourism in the local area, therefore assisting the local economy including restaurants, hotels and shops. The project has encouraged greater community engagement and involvement: the cathedral does not have large resources for these activities but the projects have provided a prime opportunity. During the west slype roof works the medieval sculptures that had been in store there were taken out and made available for the public to view.

Works completed

The works, completed by the main contractor with the support of the cathedral's in-house stonemasons included roof coverings, rainwater goods, restructuring of the west slype roof, timber replacements, leading and roof slate replacements. Improvements to access to allow easier and safer maintenance in future were also carried out.

The Cathedral

See previous project summaries.



West slype roof inside shop. Photo credit: Acanthus Clews Architects.

Worcester Cathedral: Great West Window Repairs (4 of 5 projects funded)

Awarded £390,000 in July 2016 and a further £60,000 in June 2017

The need

The Great West Window, by John Hardman and Co. of Birmingham, was installed during the restoration between 1854 and 1875. Depicting the Creation story, it is the counterpart of the Great East Window, repaired with the help of a previous grant. An inspection carried out in early 2016 during repairs to damage probably caused by a football concluded that an immediate major programme of repair and conservation was needed. The leadwork was in poor shape, with many cracked solder joints and hundreds of cracks throughout the window. This was caused mainly by buckling of the lead work. All main lights of the window leaked very severely, with water pooling on tie bars, running freely down the inner face of the glazing and forming large pools at sill level. Water was also forced through the leading, soaking areas below the window. This amounted to widespread failure of the window as a weatherproof barrier with implications for the surrounding fabric, and risked loss and significant damage to the window, which is exposed to strong westerly winds and rainstorms. The work was therefore urgent.



Great West Window detail. Photo credit: Acanthus Clews Architects.

Outcomes

This notable window is now stable and conserved for the future; the area around it is safer and drier. The projects at Worcester Cathedral have generated greater interest in the cathedral and its heritage, catalysing further investment. Without the grant, the cathedral team do not feel they would have been able to raise the necessary funding for the repair work.

Economic and social impact

The project supported jobs in the stonemasonry and traditional window repair industry. More investment in the cathedral will increase tourism in the local area, assisting the local economy including restaurants, hotels and shops. The project has encouraged greater community engagement and involvement.

Works completed and timescale

The works were carried out by the cathedral's in-house works department and stained glass specialists Holy Well Glass, and covered conservation and repair of the window and adjacent stone repairs. Once high-level access was possible, close inspection highlighted a fundamental design fault in the tracery profile that had not been known about previously: the convoluted profile formed multiple water traps within the tracery, which had accelerated the decay of the associated stonework and caused significant water ingress into the cathedral. It was agreed by the cathedral and all advisory bodies that now, while the scaffolding was up, was the time to address the design fault, but the additional work would have significant cost, programme and resourcing implications. The First World War fund's Expert Panel was able to re-allocate £60,000 from underspend elsewhere to cover most of these extra costs. The conserved glass was in-installed in the cathedral in March 2018.



External tracery showing damage caused by water traps in the stone profile. Photo credit: Acanthus

The Cathedral

See previous project summary.

Worcester Cathedral: St George's Chapel Damp Remediation (5 of 5 projects funded)

Awarded £40,000 in November 2016

The need

St George's Chapel, the cathedral's Military Chapel, is the setting of the commemorative plaques, standards and stained glass dedicated to those who fought and lost their lives in the First World War. It had a damp problem and the stonework within the chapel was in poor condition, with fractures and loss to the arcade that frames the commemorative plaques. Investigations to the ground conditions were required to inform future projects to address the leaks and poor drainage here and to the north of the cathedral generally, which were causing significant decay and loss to the stonework.

New manhole installed to the north of St George's Chapel to enable clearance of blockages and maintenance. Photo Credit: Acanthus Clews Architects.



Outcomes

Knowledge of the drainage system to this part of the cathedral has improved, it has been cleared of debris, local repairs have cleared blockages, access for maintenance has been improved, and it is free-flowing, which is improving the conditions inside the Chapel. Conservation cleaning techniques have been tested and a package of further works identified as a focus for fundraising. The projects at Worcester Cathedral have generated greater interest in the building and its heritage, catalysing further investment. Without the grant, the cathedral team do not feel they would have been able to raise the necessary funding for the work.

Economic and social impact

The project supported jobs in the drainage and traditional window repair industry. More investment in the Cathedral will result in more tourism in the local area, therefore assisting the local economy including restaurants, hotels and shops. Socially, the project has encouraged greater community engagement and involvement.

Works completed and timescale

The works included drainage surveys and repairs, conservation cleaning of salt deposits, and window repairs. The project was led by the cathedral works department. Investigations and associated remedial work to the drainage was carried out by Sewer Surveys UK. McNeillage Conservation carried out two phases of cleaning trials to test a 'palette' of conservation techniques that could be effectively used within the Chapel and elsewhere in the cathedral to remedy the effects of water penetration once drainage problems have been solved. It is intended that further fundraising will allow for the full programme to be implemented, including the lining of two culverts to complete the drainage improvements.

The Cathedral

See previous project summary.



Cleaning trials on two bays of the Chapel stonework Photo credit: Acanthus Clews Architects.