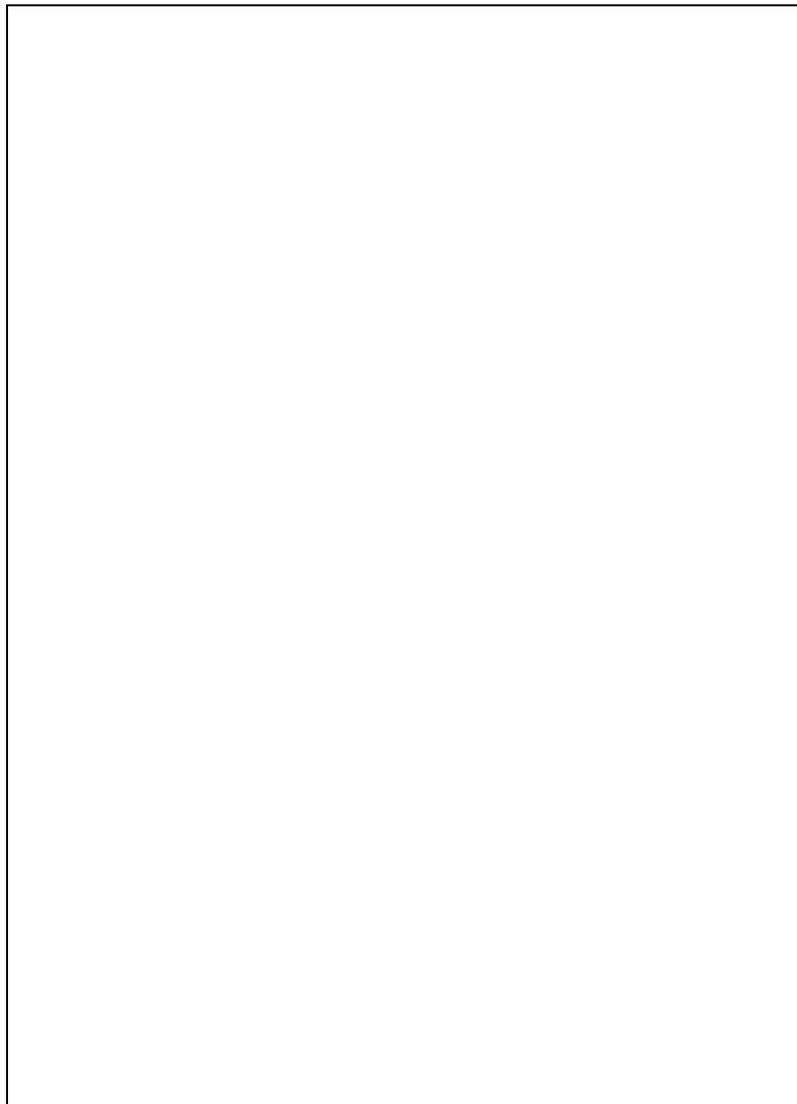


## Conserving Quality

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Natural wood can have a marvellous quality for creative architecture - its lightness, warmth, human scale, and its tangibility. Conservation of the best examples from the past carry inspired reminders into the future. The restoration and caring of historic Old St Paul's in Wellington is such an example. (See Fig 1.)



*Figure 1: West-end woodwork of Old St Paul's, Wellington*

St Paul's was originally designed by architect Frederick Thatcher, and occupied in 1866. The story of Thatcher and this pro-cathedral was interwoven with that of the colony during its first twenty-five years of organised settlement.

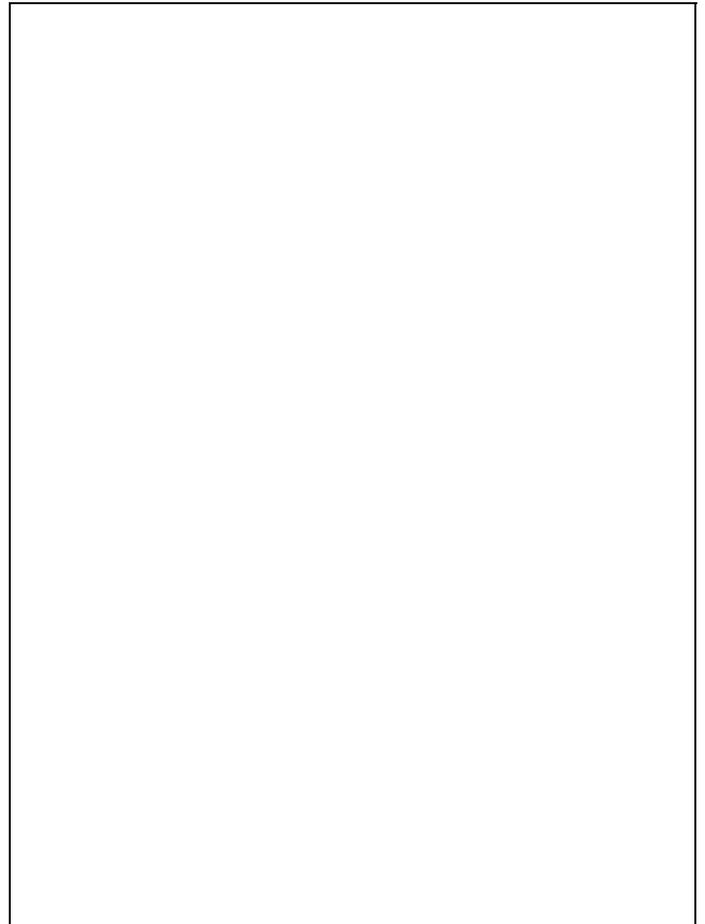
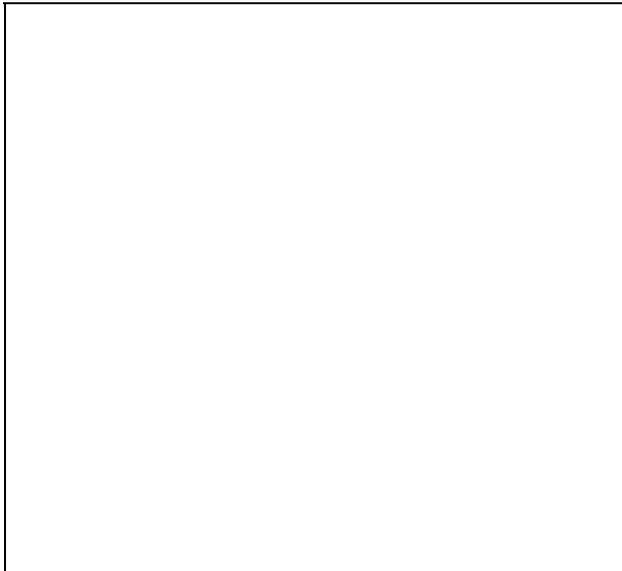
In the following decades the building was expanded and added to in carefully matching sympathy. This not only doubled its capacity, but blended a creative organic spirit through the spatial composition greatly increasing its historic story - always sensitive to the whole as an architectural concept. The flexibility of crafted woodwork lent itself so well to this expansion.

New Zealand timber was used throughout, the roof trusses, posts, framing, and some floor joists being rimu; the sarking and interior wall-lining being mostly kauri; the floor of matai; and sub-floor timber, exterior vertical board-and-batten sheathing, door and window frames, sashes etc, being totara. Some sub-floor plates and beams are of matai.

Most of the timber used is of heart quality.

The building continued to play an important part in the life of Wellington until 1964. By this time a new cathedral was ready for use. In 1966, after a century of the buildings loved use, Government decided to buy it as a national property thereby saving it from demolition.

**Figure 2** : *Fitted tent for methyl-bromide borer kill*



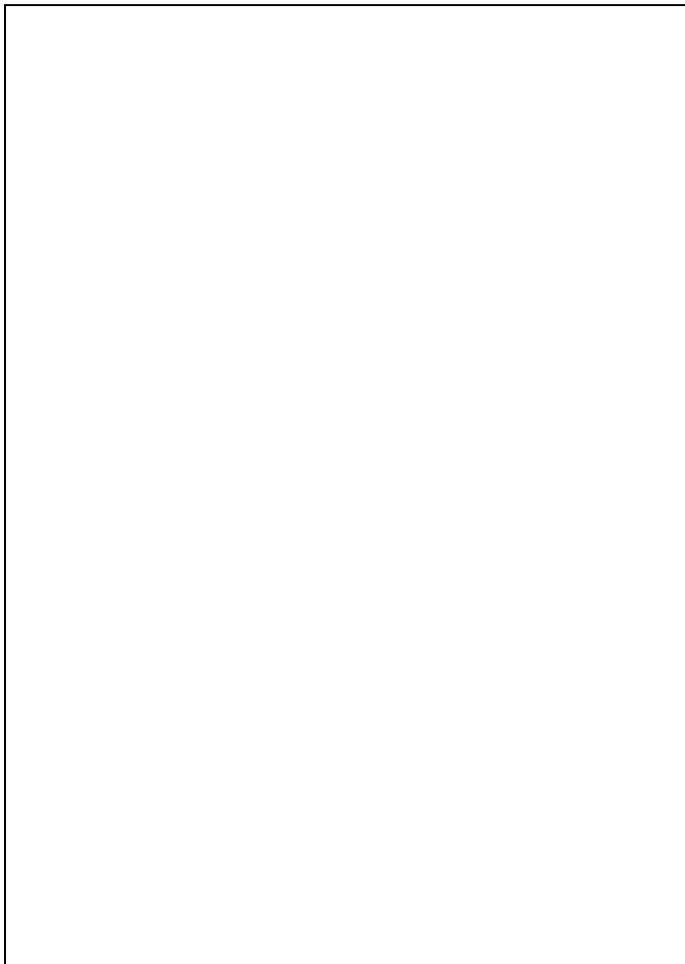
**Figure 3:** *Lasting atmosphere of the wonderful timber interior*

Despite the deteriorated condition from lack of maintenance and from a life longer than intended, to enter the historic interior remained a most atmospheric experience (Fig 3). The building was designed to lead up to a strong climax in the modelling of the sanctuary and the timberwork of the “crossing” (Fig 5) is particularly fine. Without buttresses, the asymmetrically added aisles and transepts stiffen the structure laterally. Its feeling remained one of gentle peace with the humanity of mellowed timber. Though the style of decorative detail is based on Gothic-revival, Old St Paul’s has always exhibited a local spirit in its warm use of wood, human scale, and the directness of its framed structure.

The timbers are wrought to give a lightness in appearance and the roofs are supported on open trusses to provide a spatial air (Fig 6). The principle by which Thatcher worked was to “build nothing for mere look. Everything should be real. Have every beam and rafter seen...” It was this spirit which is preserved in the architecture of Old St Paul’s. And Sir Nicholas Pevsner had been so impressed in the early 1960s that he likened the interior to the quality of a violin case.

The inspiring building had survived a century of Wellington’s earthquakes and winds.

When we started restoration, a wide range of future uses were being proposed. We thus had the problem of restoring a deteriorated 19<sup>th</sup> C building, retaining its particularly fine form and atmosphere, while at the same time rendering it suitable for the variety of uses required. It had to be brought up to modern standards of safety for long term without destroying its historical associations.



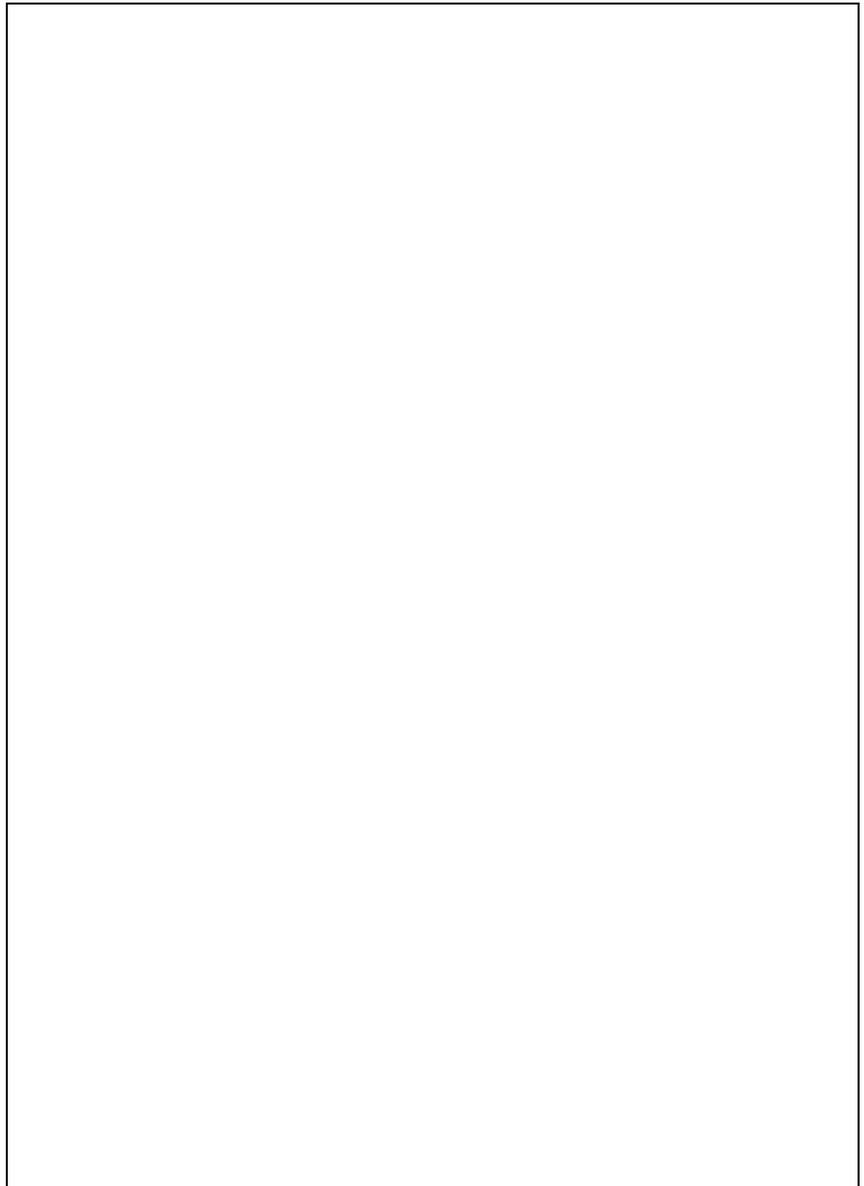
*Figure 4 : Rebuilding the north-transsept wall during architectural restoration*

Restoration took years of painstaking repairs, with much of the building rebuilt. It had had collapsed foundations, rotted and borer-infested woodwork, and was leaking. First it had to be rendered watertight, including timberwork, stripping, and repainting.

Then new foundations were formed - not just permanently firm, but jacked back to true level when we found this possible without damage to the old timbers. Soil against floor framing was dug out and underfloor ventilation provided. Napthenates and Everdure were used appropriately, and new timbers spliced in.

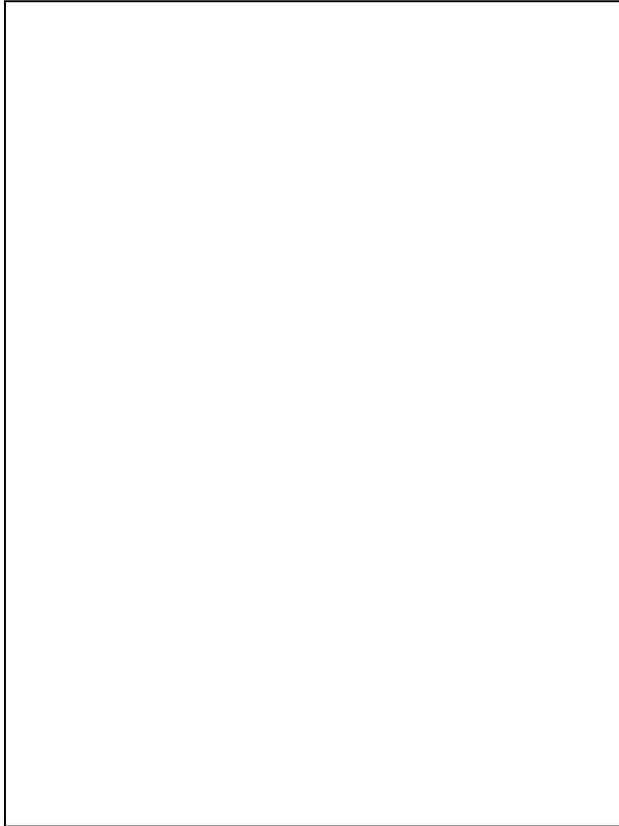
Wall framing and board-and-batten cladding were rebuilt or repaired (Fig 4). Stained-glass windows were removed and remade along with their curvilinear wood frames. Slate roofing was relaid and matched throughout. And a sprinkler system was built in against fire - designer-detailed to ensure it remained inconspicuous.

An early survey showed the extent of borer damage including live grubs active in timbers - both common borer (*Anobium punctatum*) and Two-tooth. A purpose-made tent was fitted over the outside of the building and filled with the poison-gas methyl bromide (Fig 2). Microscopic inspection showed that deep larvae and insects were all killed. Underfloor and other dark spaces were then sprayed with chemical deterrent.

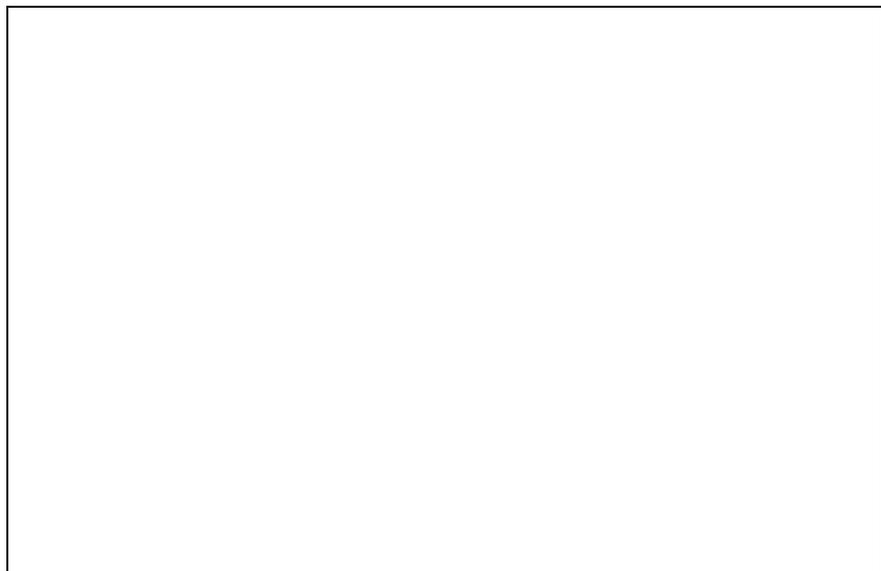


**Figure 5** : *Pattern of the roof framing and crossing in rimu and kauri*

Now the light timber structure was tied together at upper levels and bracing incorporated. With all framing showing inside to articulate the architectural space, it was important to match in inconspicuously - again the blending of timberwork enabled integrity and organic wholeness. Details such as stop-chamfering and reeded-edging were carefully matched.



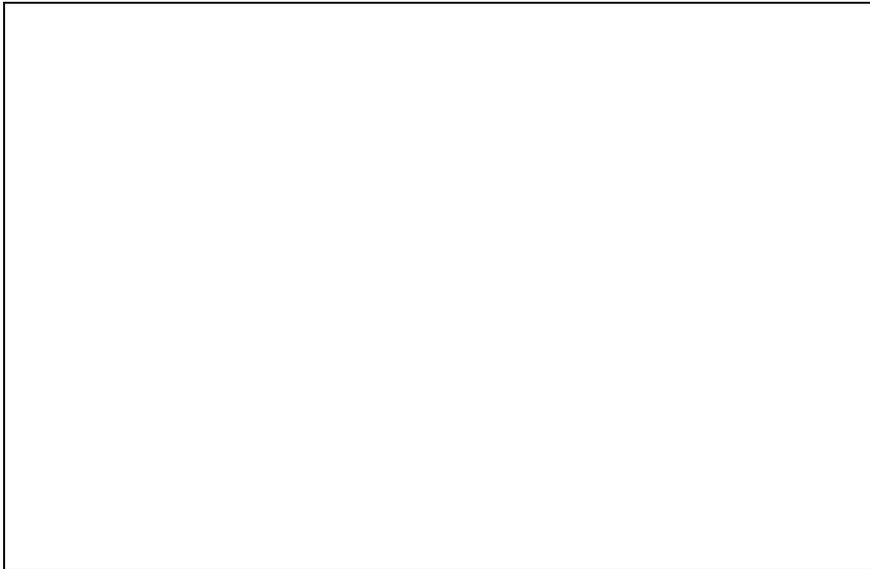
**Figure 6** : *Rhythmic structure enhanced with indirect lighting*



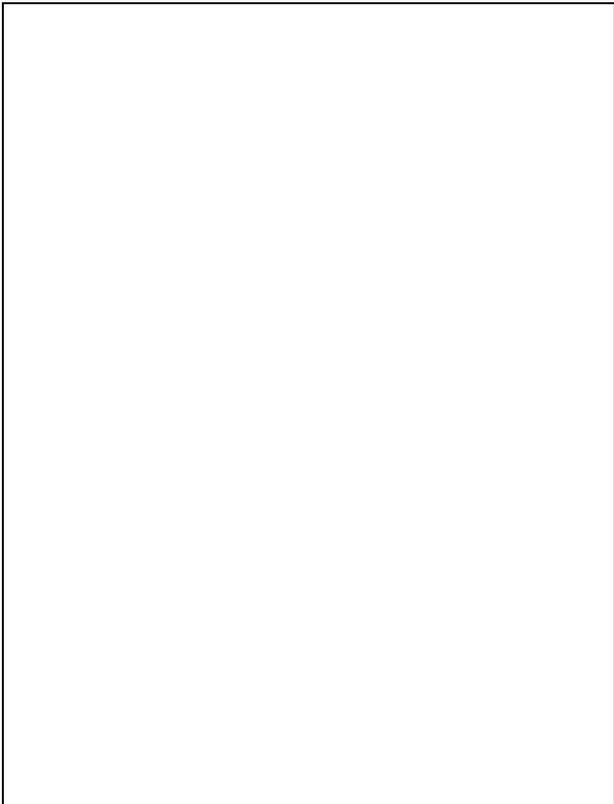
*Figure 7* : *The glow of wooden fittings in old St Paul's restored for the future*

Once the structure of the building was sound and fire-egresses built in, work began on the interior furnishings. (Fig 7). The floor was repaired and polyurethaned, the upper timberwork cleaned down, and the pews rebuilt. Brass fittings added sparkle to the red-brown timbers. The building was then re-opened with restoration work continuing. This revived public interest and the number of people using the building steadily increased.

Rewiring and heating continued. Multi-function lighting was directly inspired by the timber rhythm to indirectly reveal the spectacular woodwork. It was essential that the lighting should harmonise with the natural glow of quality materials enhancing the architecture. (Figs 6 & 8).

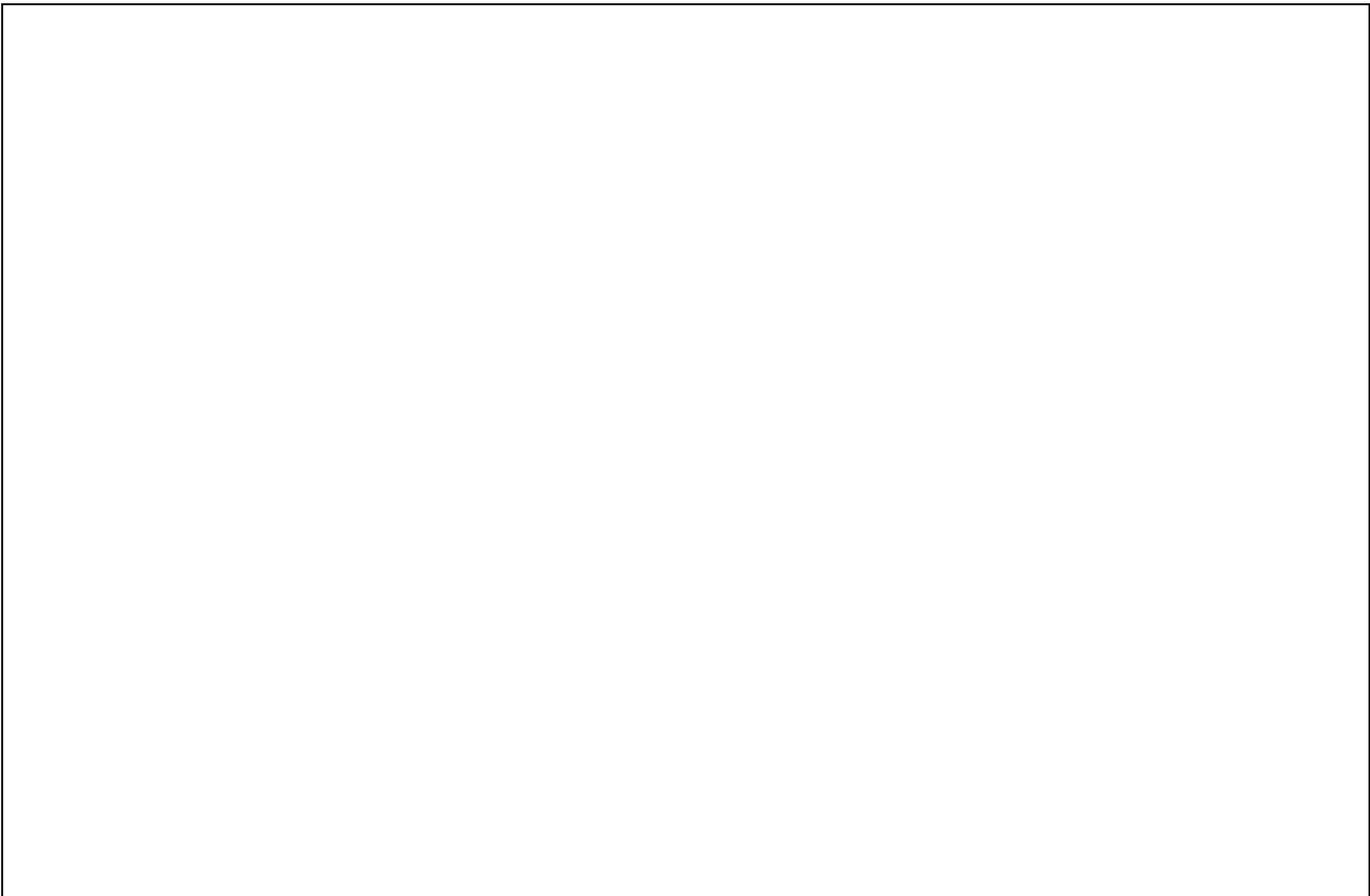


*Figure 8* : *Stop-chamfered bracing matched into the historic north-aisle roof*



*Figure 9: Carving detail of the Glastonbury-style bishop's chair*

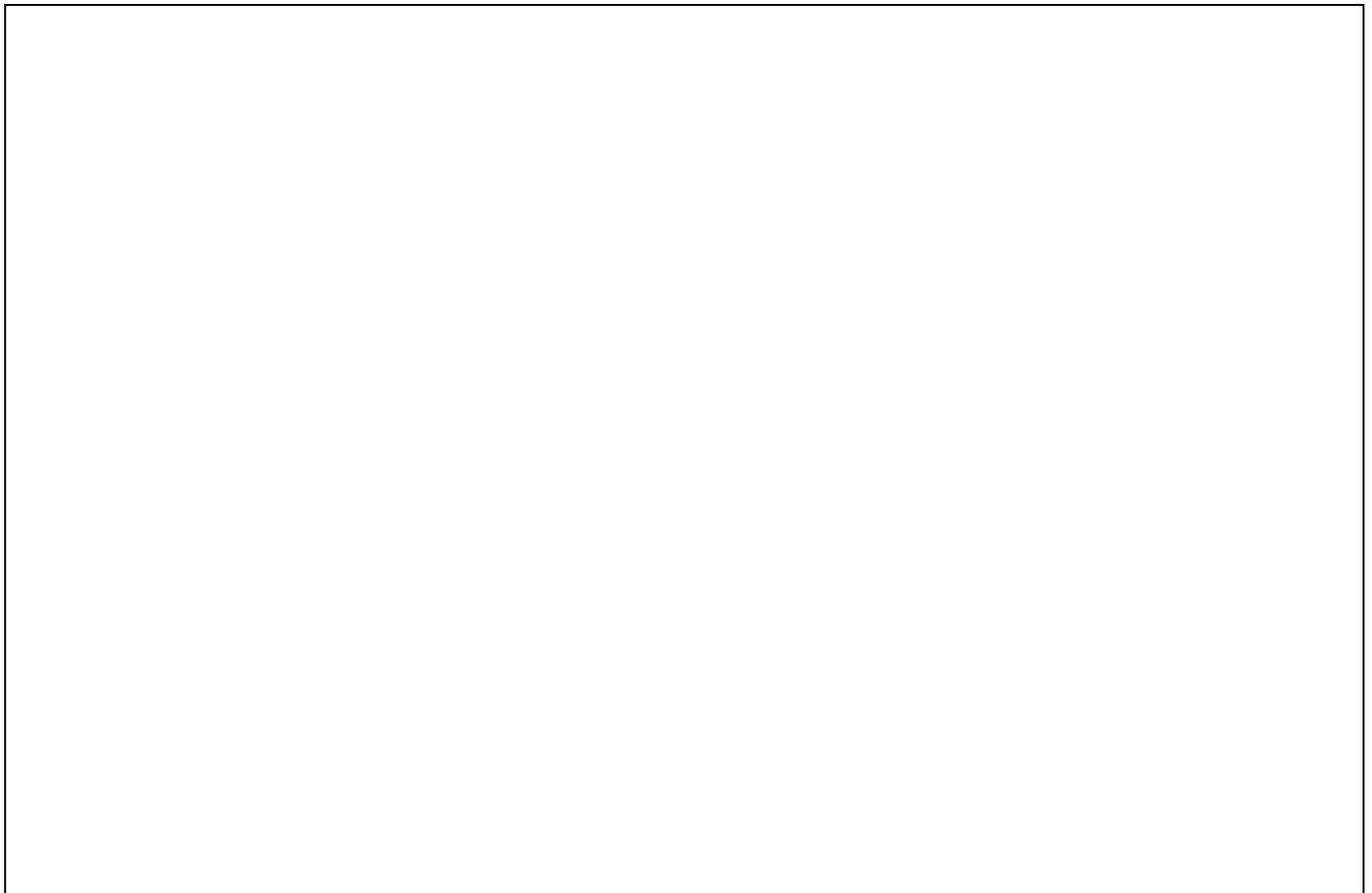
Later projects included the installation of a specially designed replacement pipe organ involving the careful blending of copper pipes and chamfered timbers to fit in naturally with the historic interior. (Fig 10).



*Figure 10: Timber warmth of the rebuilt interior including matched-up new organ*

Another fascinating restoration project was the detailed reconstruction of the old full-circle bell mechanism with its wooden wheels and frame - set up for proper change-ringing again (Fig 11) - and which can be seen above the entry porch.

It was a pleasure to be Architect for this job, and then be awarded a National Tourism Design Award and the New Zealand Institute of Architects National Award for the work. The jury's citation stated "This is a fine example of restoration carried out with world class consistency to a building that is a vital part of New Zealand's heritage." But more important, Old St Paul's became the nation's most visited historic place with over 60,000 visitors enjoying the creative atmosphere each year.



*Figure 11: Carved wood wheels, stays, sliders, and frame of the architecturally restored change-ringing bells*

We trust that with professional care the outstanding architectural spaces and forms of this building enhanced by the special qualities and advantages of timber construction can be kept wholly intact for future generations. It can demonstrate some of the ways the warmth, scale, and blending flexibility of timber can continue to provide the most humane architecture.

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Project Architect, photos and text