

The spire

"The Arts Centre spire is the most powerful cultural symbol in Melbourne - it is an artistic landmark, and one which represents the city as the arts capital of Australia." Haddon Storey, Minister for the Arts, 1995.

As with a church steeple or spire, the purpose of the Arts Centre's spire is symbolic, providing a visual feature and signpost for the entire complex.

The building originally planned for the site was to encompass both Theatres and Hamer Hall and to be topped with a 126 metre spire, the same height as St Patrick's Cathedral. However the growth of the building to include the facilities now provided meant the building and the spire had to be redesigned.

Architect Sir Roy Ground's investigations into the possibilities of an open lattice, space frame design coincided with technological developments utilised in the stadium construction for the 1972 Munich Olympic Games.

Sir Roy's new 137 metre high space frame design included spectacular gold coloured webbing around its lower section, simulating the flowing folds of a ballerina's tutu. This design was subsequently adopted, although the height was reduced by 22 metres to 115 metres.

As a result of increasing structural deterioration of the original upper spire structure, with cracks discovered in 4 of the spire's 12 largest stainless steel nodes, the Trust's engineering advisers recommended the upper spire be replaced. It was deemed more cost effective to replace the tower of the spire than to continue regular repair and maintenance work.

Following the consideration of a number of design options submitted by different architects, the Trust approved the design proposed by Professor Peter McIntyre of McIntyre Partnership and Bob Sturrock of Maunsell Pty Ltd. This proposal was based upon the open lattice design selected by Sir Roy Grounds for the original spire however it was to be much taller, providing a more elegant and better proportioned spire. Completed January 12 1996, the new spire reaches 162 metres above St Kilda Road with a 10 metre mast at its peak, while adhering to Sir Roy's original design.

The design incorporated major lighting elements which were installed as part of the lighting installation and winched into place through the spire structure after the scaffolding had been removed.

An essential element of the spire design was that the spire would have strong and dramatic night time imagery.

The challenge of the proposed design was that it sought to light the structure by adding lighting elements directly onto the spire, not by the more traditional means of flooding the structure with light from a distance. The proposed design was therefore also the most energy efficient and provided for the creation of a number of 'moods' projected by the spire on the Melbourne skyline.

The placement of thousands of components onto the structure required the development of sophisticated engineering solutions. These solutions resulted in the

development of world first lighting equipment and computer control technology. The design of the fixing and securing components resulted in the need for wind tunnel testing and significant prototyping, to ensure they complied with the structural design parameters of the spire and the mast.

The spire, with the capacity to create images that will glow, sparkle and twinkle, has 6,600 metres of fibre optic tubing in and around the spire, 17,700 metres of power and control cables, 14,000 incandescent lamps on the skirt of the spire, 150 metres of neon tubing on the mast alone, 496 computer control devices which manipulates the colours and movement of the lights, and 900 power and control plugs.

The Arts Centre celebrated the New Year and Australia Day 1997 in style, launching the exciting lighting system of the spire on January 28. Over 35,000 people witnessed the spectacular lighting of the spire, which transformed the cultural icon into a unique nocturnal presence on the Melbourne skyline.

The spire has become an icon of Melbourne and regularly features in annual community gatherings, such as the New Year's Eve fireworks. A particular highlight was the Millennium Celebration which included special free activities on the forecourt and fireworks erupting from the spire as the clock ticked over.