



Environment Protection and Biodiversity Conservation Act 1999

INCLUSION OF A PLACE IN THE NATIONAL HERITAGE LIST

I, Ian Gordon Campbell, Minister for the Environment and Heritage, having considered, in relation to the place listed in the Schedule of this instrument -

- (a) the Australian Heritage Council's assessment whether the place meets any of the National Heritage criteria; and
- (b) the comments given to the Council under section 324G of the *Environment Protection and Biodiversity Conservation Act 1999*; and

being satisfied that the place specified in the Schedule has the National Heritage value or values specified in the Schedule include, pursuant to section 324J of the *Environment Protection and Biodiversity Conservation Act 1999*, the place listed in the Schedule in the National Heritage List.

Dated 6th day of July 2005

Ian Gordon Campbell
Minister for the Environment
and Heritage

SCHEDULE

STATE

Local Government Area

Name:

Location

Criteria / Values

NEW SOUTH WALES**Sydney City****Sydney Opera House:**

2 Circular Quay and Macquarie Street, Bennelong Point, Sydney, comprising all of Lot 5 DP775888 and all of Lot 4 DP7879333, and including the sea walls abutting these lots.

Criterion

(a)
the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history.

Values

The Sydney Opera House is significant in the course of Australia's cultural history, both for its place in the national history of building design and construction, as well as the history of the performing arts in Australia. The Sydney Opera House represents a masterpiece of modern architectural design, engineering and construction technology in Australia. It is a national icon that has become an internationally-recognised symbol of modern Australia and of Sydney, Australia's largest city. From the earliest concept drawings, the building's striking design, its quality as a monumental sculpture in the round, and its inspired design solution in response to its prominent setting on Bennelong Point in Sydney Harbour, have attracted national and international professional and public acclaim. The challenges involved in executing the design inspired innovative developments in technologies, construction engineering and building methods in Australia, creating the building's distinctive form, fabric and structural systems. Since the official opening on 20 October 1973 by Queen Elizabeth II, the Sydney Opera House has played a seminal role in Australia's performing arts history, enhancing the cultural vitality of the nation and continuously attracting nationally and internationally recognised performers from around the world. The achievement of its design and construction between 1957 and 1973 is all the more remarkable because it marks a significant transitional period in Australian political and economic development, and changing social attitudes towards Australian cultural life in the decades following World War II.

Criterion

Values

(b)

the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history.

The Sydney Opera House is a cultural icon that has no counterpart in Australia. With its distinctive sail-like concrete shell roofs standing boldly upon a massive granite-faced platform, located prominently on the Sydney Harbour foreshore, the Sydney Opera House is the most widely recognised building in Australia, and one of the most definitive national architectural icons of the twentieth century. It is also a rare example of a national cultural centre that has gained widespread recognition and respect as a performing arts venue.

(e)

the place has outstanding heritage value to the nation because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.

The design, form, scale and location of the Opera House make it one of the most significant landmarks in Australia. The aesthetic qualities of the Sydney Opera House relate both to its topographical setting on Bennelong Point, and its distinctive architectural features. Its landmark qualities are enhanced by the building's juxtaposition with Sydney Harbour, its relationship with the Sydney Harbour Bridge, the garden landscape of Bennelong Ridge, the sandstone cliff face of Tarpeian Rock, and the vistas and views to and from The Rocks, Circular Quay, East Circular Quay, Macquarie Street, the Botanic Gardens and the harbour. The sculptural, billowing sail-like roof shells provide a visual link to and artistic representation of the yacht-scattered harbour waters. The ceramic white tiles of the roof further add to this relationship and provide a dramatic contrast with the blue waters of the harbour. The building with its strongly curved design emphasis is juxtaposed with the nearby Sydney Harbour Bridge which itself has a strongly emphasized curvature, and this visual relationship is a further element of the place's aesthetic appeal. The place's dramatic aesthetic appeal is enhanced by subtle floodlighting on the white roof shells at night. The building's ability to emotionally move people and invoke a strong aesthetic response is enhanced by the experience of approaching, entering and moving around the building and surrounds. The public promenades including the Forecourt, Broadwalk, and podium platform and steps contribute to the majestic qualities of the place. The large forecourt and sweeping podium steps prepare the visitor for the majestic quality of the soaring internal spaces including the folded concrete beams throughout the building, and the reinforced radial cranked beams in the northern foyers. These are complemented by the vast coloured glass panels in the main foyers of the Concert Hall and Opera Theatre wings, through which the harbour and city views reinforce the building's magnificent setting. The distinctive interiors including the foyers surrounding the major auditoria, the Reception Hall (now the Utzon Room), the Box Office foyer, and the Bennelong Restaurant designed by Utzon and Peter Hall, enhance the relationship between the interior and exterior of the building. The two large murals commissioned specifically for the Sydney Opera

Criterion**Values**

House, including John Olsen's 'Five Bells' and Michael Nelson Jagamara's 'Possum Dreaming', enhance the aesthetic values of the interior.

(f) the place has outstanding heritage value to the nation because of the place's importance in demonstrating a high degree of creative or technical achievement at a particular period.

The Sydney Opera House represents a masterpiece of architectural creativity and technical accomplishment unparalleled in Australia's history. In every respect, it is a structure at the leading edge of endeavour. Its many awards, including the Royal Australian Institute of Architects Gold Award given to architect Jørn Utzon in 1973, reflect its pivotal place in the national story of creative achievement providing, as Utzon envisioned, 'an individual face for Australia in the world of art' (Frampton and Cava 1995, 296). The design of the building reflects Utzon's intention to create a sculptural form that would be both a focal point in Sydney Harbour and a reflection of its character. 'The white sail-like forms of the shell vaults relate as naturally to the Harbour as the sails to its yachts' (Assessors Report cited in Norberg-Schulz 1980, 56).

The 'hybrid' interior spaces of the Sydney Opera House reflect the creative genius of both Utzon and Todd, Hall and Littlemore, who completed the building and interior finishes after Utzon's departure. The major public spaces with outside views, for example were designed by Utzon (and completed by Peter Hall) to be finished in natural materials, textures and colours similar to those on the exterior of the building in order to bring the outside inside (Kerr 2003, 69). In his *Design Principles* booklet submitted to the Sydney Opera House Trust in 2002, Utzon revealed the two ideas of particular importance in his design: first, his use of organic forms from nature, evident in the leaf form pattern devised for the ceramic roof tiles, and second was the creation of sensory experiences to bring pleasure to the building's users, particularly the experience of approaching, mounting the grand staircase to the podium, passing through the low ribbed box office, up to the foyers flanking the auditoria with their harbour views, and the climax of the performance itself. 'Both ideas were...reinforced by Utzon's application of counterpointing techniques using light and dark tones, soft and hard textures and richly treated warm and cool interior colours. On a grander scale, the light toned shells of the building were to stand out against the (then) darker fabric of the city' (Kerr 2003, 44).

The interior spaces designed by Peter Hall, including the major auditoria known as the Concert Hall and Opera Theatre, and the minor performance spaces, performers' and staff areas, and rehearsal rooms, known collectively as 'Wobbly Land' because of the distinctive 'U' shaped timber paneling, demonstrate the distinctive design solutions that made the Opera House a

Criterion

Values

f) continued

functioning performing arts centre in the 1970s, and reflect the prevailing aesthetic values, building standards, and financial constraints of the day.

The process of building the Sydney Opera House resulted in the development of a number of innovative technical and creative solutions that were groundbreaking in the history of building design and construction in Australia. This is especially the case with the design and construction of the roof, based on the geometry of the sphere. The roof shells had to span large areas to accommodate the main hall and smaller hall. The solution to the structural challenges of the roof shells devised by Utzon and Ove Arup and Partners over a four year period involved the production of arched segments of varying curvature from the same range of precast modular units. The concrete shells were finally produced by cutting a three-sided segment out of a sphere and by deriving regularly modulated curved surfaces from this solid (Frampton and Cava 1995, 273). The roof shells with their vaulted concrete ribs were constructed using precast concrete segments fixed together with epoxy resin and held together by pre-stressing tendons, representing a considerable structural innovation for the period. The roof shells were faced in off-white Swedish Hoganas tiles inspired by the Chinese ceramic tradition. Using a European technique of prefabrication, over one million tiles were cast into precast concrete lids on the ground then bonded onto the ribbed superstructure of the shells (Frampton and Cava 1995, 280). From the point of view of science, the Opera House embodies within its structure the integration of sophisticated geometry, technology and art. It epitomizes the extraordinary creative potential of the assembly of prefabricated, repeated components (Norberg-Schulz 1996, 101).

The building was the first of its kind in Australia to use computer-based three-dimensional site positioning devices, geothermal pumps, tower cranes, chemical anchors, non-competitive tendering, life-cycle engineering, parametric design (such as the use of governing equations to model a design), and critical path methods. It gave rise to the establishment of a testing laboratory at the University of New South Wales that became one of the first organizations in the world to commercialise university research and support technology transfer. It also promoted Australian expertise internationally, and opened the way for international engineering construction firms such as Ove Arup to establish their operations in Australia. Utzon's approach to project management was instrumental in changing Australian building and building procurement practices, including *de facto* pre-qualification of bidders, use of scope drawings, performance-based design assistance from trade specialists, mock-up testing, and on-the-job skill development (Tombesi 2005).

Criterion**Values**

(g) the place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

The Sydney Opera House is an enduring symbol of modern Sydney and Australia, both nationally and internationally. Indeed, the profile of the distinctive ceramic clad roof shells has become an instantly-recognisable national emblem. For example, it provided the inspiration for the logo used to promote the 2002 Olympic Games held in Sydney. The building's role as a cultural icon is also derived from the numerous performances conducted there (100,000 since 1973), and the place's role as a focal point for community events. The Sydney Opera House is a mecca for both Australian and international visitors to Sydney, attracting over 100 million visitors since the opening in 1973. The high cost of construction was met by a major public lottery that served to enhance its status as a place for the people.

(h) the place has outstanding heritage value to the nation because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history.

The Sydney Opera House is directly associated with Jørn Utzon, whose design won an international competition in 1957 and was hailed by the architectural critic Sigfried Giedion as opening a new chapter in contemporary architecture. Utzon's design represented a significant development in the basic concepts of the Modern Movement in architecture associated with free plan and clear construction. It evolved during a period of experimentation in modern architecture occurring internationally in the 1950s. Utzon was influenced by the architecture of the ancient Mayans and Aztecs, as well as the work of earlier twentieth century architects including the Finnish architect, Alvar Aalto with whom Utzon worked in 1945, Frank Lloyd Wright, and Mies van der Rohe. Utzon's creative genius, exemplified in the Sydney Opera House, is widely acknowledged amongst national and international scholars of modern architectural history. Although Utzon left the project in 1966, prior to the building's completion, the Sydney Opera House is nevertheless identified with him and he has attracted national and international acclaim. His professional recognition in Australia is reflected by awards such as the Royal Australian Institute of Architects' Gold Award mentioned above, and internationally in awards such as the prestigious Pritzker Prize for Architecture awarded to Utzon in 2003.

The peninsula on which the Sydney Opera House now stands has a special association with Bennelong, an Aboriginal man 'captured' by Governor Arthur Phillip in 1789. Bennelong became a prominent and influential figure in the early Sydney colony, sharing information about his culture with Governor Phillip and regularly visiting the Governor's residence. He was the first Aboriginal adult in the new colony to play a significant role in mediating interactions between Aboriginal people and the early settlers, and was reportedly highly regarded by both Aboriginal people and Europeans. Governor Phillip built the first

Criterion

Values

h) continued

structure - a house - on the peninsula for Bennelong's use, and from the 1790s the peninsula became known as 'Bennelong Point', and was known to Aboriginal people as Tyubow-gule (McBryde 1989, 17).

For a description of any references quoted above, and more information on the place please search the Australian Heritage Database at <http://www.deh.gov.au/cgi-bin/ahdb/search.pl> using the name of the place.