

Sydney Opera House (Australia)

No 166 rev

Official name as proposed by the State Party: Sydney Opera House

Location: Sydney, Australia

Brief description:

The Sydney Opera House is situated at the tip of a prominent peninsula projecting into Sydney Harbour and within close proximity to the Royal Botanic Gardens and the Sydney Harbour Bridge. The architectural form comprises three groups of interlocking vaulted ‘shells’ (roofing respectively the two main performances halls and a restaurant), set upon a vast terraced platform, ‘the podium’, and surrounded by terrace areas that function as pedestrian concourses. The complex includes more than 1,000 rooms, most of which are located within the podium, as are virtually all the technical functions of the performing arts centre.

Category of property:

In terms of the categories of cultural properties set out in Article 1 of the 1972 World Heritage Convention, this is a *monument*.

1. BASIC DATA

Included in the Tentative List: 27 June 2006

International Assistance from the World Heritage Fund for preparing the Nomination: No

Date received by the World Heritage Centre: 26 January 2006

Background:

In 1980 Australia submitted a nomination dossier referred to as *The Sydney Opera House in its Setting*, including the Sydney Harbour Bridge and the surrounding waterways of Sydney Harbour from Bradley’s Head to McMahon’s Point.

In April 1981 ICOMOS recommended that the inclusion of the proposed cultural property be deferred. ICOMOS considered that the inscription on the World Heritage List on the basis of criterion i, as proposed by the State Party, did not appear to assert itself, to the extent that the Opera House is part of a series of experiments in “sculptural architecture”.

ICOMOS also considered that as a question of the work of a living architect, inaugurated less than ten years ago at that time, ICOMOS did not feel itself competent to express an opinion on the eventual admissibility based on criterion ii.

The inscription was recommended to be deferred until its exemplary character or its role as model appears more clearly attributable to the creation of Jørn Utzon.

At the 5th session of the Bureau of the World Heritage Committee (Paris, May 1981), the Bureau “considered that modern structures should only be accepted when there was clear evidence that they had established, or were outstanding examples of, a distinctive architectural style. However, the Bureau expressed interest in receiving a revised nomination based on the outstanding features of Sydney Harbour, both as a bay and as the site of the first permanent European settlement in Australia. Such a nomination could include structures such as the Opera House and the Sydney Harbour Bridge, but they would not constitute the primary elements.”

Consultations: ICOMOS has consulted its International Scientific Committee on 20th Century Heritage.

Literature consulted (selection):

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Technical Evaluation Mission: 20-22 September 2006

Additional information requested and received from the State Party: None

Date of ICOMOS approval of this report: 21 January 2007

2. THE PROPERTY

Description

The Sydney Opera House is situated at the tip of a prominent peninsula projecting into Sydney Harbour (known as Bennelong Point) and within close proximity to the Royal Botanic Gardens and the Sydney Harbour Bridge.

The architectural form comprises three groups of interlocking vaulted 'shells', set upon a vast terraced platform ('the podium') and surrounded by terrace areas that function as pedestrian concourses. The two main shell structures cover the two main performance venues, known as the Concert Hall and Opera Theatre. The third set of shells that overlooks Sydney Cove was designed specially to house a restaurant. The two main halls are arranged side by side, oriented north-south with their axes slightly inclined. The auditoria are carved out of the high north end of the podium so that they face south, towards the city, with the stage areas positioned between them and the entrance foyers. The tallest shell reaches the height of a 20-storey building above the water. The shell structures cover nearly two hectares and the whole property is nearly six hectares. The complex includes more than 1000 rooms, most of which are located within the podium, as are virtually all the technical functions of the performing arts centre.

The base of the Sydney Opera House rises up as a massive monolith of reinforced concrete, a grand granite-clad podium. Its monumental scale forms an artificial promontory that offers continuity with the harbour-side landscape. The forecourt is a vast open space from which people ascend the stairs to the podium. The podium steps, which lead up from the forecourt to the two main performance venues, are a great ceremonial stairway nearly 100 metres wide and two storeys high.

Jørn Utzon's design created an unconventional performing arts building in the way that it separated the performance and technical functions. The two main performance venues were placed beneath the vaulted roof shells, side by side upon the podium, while all the back-stage facilities and technical equipment were hidden within the podium. The vaulted roof shells were designed by Utzon in collaboration with Ove Arup & Partners; the final shape of the shells was derived from the surface of a single imagined sphere, some 75 metres in diameter. This geometry gives the building great coherence as well as allowing its construction to benefit from the economies of prefabrication.

Each shell is composed of pre-cast rib segments radiating from a concrete pedestal and rising to a ridge beam. The ribs of the shells are covered with chevron-shaped, pre-cast concrete tile lids. The shells are faced in glazed off-white tiles while the podium is clad in earth-toned, reconstituted

granite panels. The north and south ends of the shells are hung with topaz glass walls that project diagonally outwards to form foyers, offering views from inside and outside. The glass walls are a special feature of the building, constructed according to architect Peter Hall's modified design. The topaz glazed in-fill between the shells and the podium was built as a continuous laminated glass surface with faceted folds tied to a structure of steel mullions.

The Concert Hall is the largest performance space of the Sydney Opera House and accommodates up to 2700 people. Birch plywood, formed into radiating ribs on the suspended hollow raft ceiling, extends down the walls to meet laminated brush-box linings that match the floor. The Opera Theatre is the Sydney base for Opera Australia and the Australian Ballet, and a regular venue for the Sydney Dance Company. Its walls and ceiling are painted black and the floor is brush-box timber.

Peter Hall's design for the interiors used different finishes to distinguish the various spaces in the building. The Utzon Room is a multi-purpose venue overlooking Farm Cove that is used for music recitals, productions for children, lecture programs and functions. Formerly the Reception Hall, the room was transformed in 2004 under Utzon's design guidance. The western loggia is the first major structural work to the exterior of the building since the opening of the Sydney Opera House. It was designed by Utzon following his re-engagement with the Sydney Opera House in 1999. The western loggia comprises a colonnade opening into the western side of the podium facing towards the Sydney Harbour Bridge. Nine openings have been created to open up the foyers of the Drama Theatre, the Studio and the Playhouse to natural light and to allow access to harbour and city views. Utzon's design for the western loggia was inspired by the colonnades found in Mayan temples, which were one of the original design sources for the Sydney Opera House.

History and development

A major cultural centre for Sydney and its siting at Bennelong Point had been discussed since the 1940s. In 1956 the New South Wales Government called an open-ended international design competition and appointed an independent jury, rather than commissioning a local firm. The competition brief provided broad specifications to attract the best design talent in the world; it did not specify design parameters or set a cost limit. The main requirement of the competition brief was a design for a dual function building with two performance halls.

The competition generated enormous interest in Australia and overseas. The New South Wales Government's decision to commission Jørn Utzon as the sole architect was unexpected, bold and visionary. There was scepticism as to whether the structure could be built given Utzon's limited experience, the rudimentary and unique design concept and the absence of any engineering advice. The competition drawings were largely diagrammatic, the design had not been fully costed and neither Utzon nor the jury had consulted a structural engineer. Utzon's design concept included unprecedented architectural forms and demanded solutions that required new technologies and materials. The New South Wales Government also faced public pressure to select an Australian architect.

The Sydney Opera House is often thought of as being constructed in three stages and this is useful in understanding the history of the three key elements of its architectural composition: the podium (stage 1: 1958–1961), the vaulted shells (stage 2: 1962–1967) and the glass walls and interiors (stage 3: 1967–1973). Architect Jørn Utzon conceived the overall design and supervised the construction of the podium and the vaulted shells. The glass walls and interiors were designed and their construction supervised by architect Peter Hall supported by Lionel Todd and David Littlemore in conjunction with the then New South Wales Government Architect, Ted Farmer. Peter Hall was in conversation with Utzon on various aspects of the design for at least eighteen months following his departure. Ove Arup & Partners provided the engineering expertise for all three stages of construction.

Design and construction were closely intertwined. Utzon's unique design together with his radical approach to the construction of the building fostered an exceptional collaborative and innovative environment. His collaborative model marked a break from conventional architectural practice at the time. The design solution and construction of the shell structure took eight years to complete and the development of the special ceramic tiles for the shells took over three years. The Sydney Opera House became a testing laboratory and a vast, open-air pre-casting factory.

The Sydney Opera House took sixteen years to build; this was six years longer than scheduled and ten times more than its original estimated cost. On 20 October 1973 the Sydney Opera House was officially opened by Queen Elizabeth II. After inauguration, new works were undertaken over time. Between 1986 and 1988 the land approach and forecourt were reconstructed and the lower concourse developed under the supervision of the then New South Wales Government Architect, Andrew Andersons, with contributions by Peter Hall.

Between 1998 and 1999 the recording and rehearsal room was converted into two areas: an assembly area for the orchestra and the Studio, a revitalised performance space for the presentation of innovative music and performing arts. In 1998, in accordance with the celebration of the 25th anniversary of inauguration, the Sydney Opera House Trust appointed Sydney architect Richard Johnson to advise on future development of the site and to establish planning principles. Through Johnson, the Sydney Opera House Trust began negotiations to reconcile with Utzon and to re-engage him with the building in an advisory capacity. In 1999 Utzon formally accepted Premier Carr's invitation to re-engage with the project by setting down design principles that outline his vision for the building and explain the principles behind his design. Over three years he worked with his architect son and business partner, Jan Utzon, and Richard Johnson to draw up his design principles for the Sydney Opera House, including the refurbishment of the reception hall, construction of the western loggia, exploration of options for improving the Concert Hall acoustics, improving services to the forecourt to support performances, modification of the orchestra pit and interior of the Opera Theatre. In 2002 The Sydney Opera House Trust released the Utzon Design Principles. In 2004 refurbishment of the Utzon Room (formerly known as the reception hall) was completed.

3. OUTSTANDING UNIVERSAL VALUE, INTEGRITY AND AUTHENTICITY

Integrity and Authenticity

Integrity

All elements necessary to express the values of the Sydney Opera House are included within the boundaries of the nominated area and buffer zone. This ensures the complete representation of its significance as an architectural object of great beauty in its waterscape setting. The proposed buffer zone retains the relationship between the monument and its setting that has been identified as contributing to its value. All elements of the property that contribute to its heritage significance have been identified and policies developed to sustain their significance into the future.

Authenticity

Extensive documentation is available on the construction of the building to the present day and the people who were directly involved in its creation are accessible today.

With regards to form and design, it is worthy to remember that Jørn Utzon designed and supervised the construction of the podium, stairs and the shells, which together provide the exterior and interior form and structure of the building. The major and minor halls and the glass walls were designed and built by Hall, Todd and Littlemore.

As mentioned before, design and construction were intertwined and are key to a good understanding of the property. Conservation issues have arisen from this multiple authorship. Attention given to retain the building's authenticity culminated with the Conservation Plan and the Utzon Design Principles. The rigorous management and conservation of the building assist in retaining its material integrity and authenticity.

The Sydney Opera House continues to perform its function as a world-class performing arts centre. The Conservation Plan specifies the need to balance the roles of the building as an architectural monument and as a state of the art performing centre, thus retaining its authenticity of use and function.

Concerning authenticity of the setting, the Sydney Opera House is surrounded on three sides by the harbour, which provides a natural safeguard from development of the waterscape setting. Immediately behind the property, are the Royal Botanic Gardens, an important backdrop to the property when viewed from the water.

Extensive information sources are available on the construction and changes to the property. International and local expertise on the history and significance of the building is referenced throughout the nomination dossier. The ability to engage the building's creator has provided unique opportunities to authenticate its values.

ICOMOS agrees with the views expressed in the nomination dossier in relation to the authenticity of the property. The consideration of authenticity in such a "young" building obliges to take into account the specific

circumstances of its short history. The building is the result of different stages of design and construction, developed by a group of architects, engineers and constructors in the framework of the Utzon's original project. Changes introduced over the construction process and after inauguration must be considered as the natural result of the development of a living monument; they do not jeopardise the intrinsic values of the original architectural ideas and design but illustrate on the process of constructing and managing one of the landmarks of 20th century architecture.

In conclusion, ICOMOS is satisfied with the integrity and authenticity of the nominated property.

Comparative analysis

The nomination dossier includes a comprehensive comparative analysis of the Sydney Opera House with other prominent buildings of the 20th century, based on four thematic lines: the building as an outstanding example of late modern architecture; masterpieces that challenged accepted norms of buildings expression, siting or planning; masterpieces of structural engineering and technology that stretched the boundaries of the possible and iconic masterpieces. The comparative analysis is supported by quotes from some of the most important historians and critics of modern architecture.

As a masterpiece of late modern architecture, the role of Jørn Utzon as a leading architect of the so-called "third generation" is stressed. In this sense, the Sydney Opera House is compared with two masterpieces that express the poetic and environmental expressions of the third generation: the Notre Dame du Haut Chapel in Ronchamp (Le Corbusier, 1950-1955) and the Guggenheim Museum in New York (Frank Lloyd Wright, 1956-1959). This line of comparison also points out the relationship of the building with the post war search of a new monumentality, represented mainly by Le Corbusier's works in Chandigarh and Alvar Aalto's Town Hall of Säinäsalo.

With regard to masterpieces that challenged conventional norms of building expression, siting and planning, the building is compared with the City of Brasilia, the Guggenheim Museum in Bilbao, the Getty Centre in Los Angeles and the Pompidou Centre in Paris. The comparison with other opera houses or cultural centres includes the Royal Festival Hall in London, the Berlin Philharmonie and Finlandia's Hall in Helsinki. As general statement on this point, the nomination dossier concludes that the Sydney Opera House breaks new ground in terms of complex sources of architectural representation, innovation in structure and technology and an empathetic relationship between a large public building and its dramatic natural setting.

In relation with engineering and technical achievements, the building is compared with Exhibitions Buildings in Turin by Pier Luigi Nervi, and Eero Saarinen's TWA Terminal in J. F. Kennedy Airport in New York. The Sydney Opera House bears important similarities to the buildings of Nervi and Saarinen, but the functional simplicity of Nervi and Saarinen roofs serves to highlight the complex structural and architectural expression of the roofs of the Sydney Opera House.

In terms of iconic masterpieces, the building is one of the most enduring images of 20th century and world renowned monuments that traverse time and place. In this sense, it is compared to some masterpieces of architectural modernity, such as Gaudi's Sagrada Familia, Le Corbusier's Villa Savoye, Wright's Fallingwater, etc. The Sydney Opera House enjoys the same global reputation and success as these buildings for its unique architectural character and for being revered by people the world over.

The significance of the Sydney Opera House as a masterpiece of 20th century architecture has been stated by the most important historians and critics of modern architecture (see *Literature consulted* above). If compared with all the cases mentioned in this chapter, it shares some features but, at the same time, ICOMOS considers that it stands by itself as one of the indisputable masterpieces of human creativity, not only in the 20th century but of history of humankind.

ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

Justification of the Outstanding Universal Value

Statement of Outstanding Universal Value

According to the State Party, the Sydney Opera House is of outstanding universal value as a masterpiece of the 20th century architecture. Its significance is demonstrated by its unparalleled and seminal design and construction; its exceptional engineering achievements and technological innovation and its position as a world-famous icon of architecture. The Sydney Opera House broke with the formal traditions of Modernism defining a new expressive form for civic monuments. It is a daring and visionary experiment that has had an enduring influence on the emergent architecture of the late 20th century and beyond.

Utzon's original design concept and his unique approach to building gave impetus to a collective creativity including architects, engineers and builders. The design represents an extraordinary interpretation and response to the setting in Sydney Harbour.

Criteria under which inscription is proposed:

The property is nominated on the basis of *criterion i*:

Criterion i: The argument for the application of criterion (i) is developed in the nomination dossier along three lines: as a masterpiece of late modern architecture (multiple strands of creativity, a great urban sculpture, a masterful synthesis of architectural ideas); as an outstanding achievement in structural engineering and technological innovation; and as a world-famous iconic building of the 20th century.

In coincidence with the State party's view, ICOMOS considers that the Sydney Opera House is a work of human creative genius, and a masterful architectural and engineering achievement. It represents an outstanding conjunction not only of architecture and engineering but also of sculpture, landscape design and urban design. It is an ensemble that has reconfigured the way public architecture can define the city's identity in the form of an iconic signature building.

ICOMOS furthermore considers that criterion i is justified on the merit of the Sydney Opera House as a work of architecture imagined and carefully developed on the basis of programme and site in order to create a marking icon, and on the merit of the engineering achievements its construction represents. Utzon's original design concept and his unique approach to building gave impetus to a collective creativity including architects, engineers and builders.

Therefore, more than 25 years after the first nomination of this property by the State Party, ICOMOS considers that the role of Utzon (and others) has been clarified and that criterion i has been demonstrated.

ICOMOS considers that this criterion is justified.

4. FACTORS AFFECTING THE PROPERTY

The nomination dossier includes an identification of the following factors:

Development pressures

According to the State Party, these will not constitute a factor of risk since the property has substantial natural protection from development: it is surrounded on three sides by the Sydney Harbour, while the fourth side corresponds to the Royal Botanic Gardens. The definition and treatment of the buffer zone will assure the proper protection of the neighbouring areas.

Environmental pressures

The property is exposed to several environmental pressures but the means for managing their effects are in place. The exposed harbour-side location includes salt water, wave action, high winds, atmospheric pollution and solar radiation, particularly in relation to the large roof and glass wall areas. The concrete structure is vulnerable to the problems of concrete decay typical for a building in a maritime environment. Conservation challenges arising from environmental pressures have been comprehensively identified and managed. It can experience strong winds but the building was designed to withstand wind loads higher than 180 kilometres per hour. A proactive and rigorous building maintenance programme is in place to deal with the critical areas of material risk.

Natural disasters and Risk preparedness

The property is located in an area not generally prone to natural disasters. Nevertheless, as a consequence of heightened awareness of earthquake risk, new Australian standards for buildings construction have been introduced. Risk management is comprehensively embedded in the administration and management of the property.

Tourism

Since the Sydney Opera House is one of the most popular visitor attractions in Australia, more than four million people visit the property each year. Strategic planning is foreseen to address the estimated increase in visitors; which is not expected to have any negative impact on the heritage values, given the size of the Opera House precinct and the management strategies being implemented.

Initiatives under consideration include the provision of a visitor's centre and an information booth.

In conclusion, ICOMOS considers that the main risks to the property are related to the impact of its maritime location on construction materials and to the increasing number of visitors. Both aspects are considered in the conservation, management and monitoring plans.

5. PROTECTION, CONSERVATION AND MANAGEMENT

Boundaries of the nominated property and buffer zone

The nominated property includes 5.8 hectares. It corresponds to the site known as Bennelong Point, where the Sydney Opera House stands. The nominated area encompasses land owned by Government of New South Wales and managed by the Sydney Opera House Trust. It is surrounded by Sydney Harbour and the Royal Botanic Gardens.

The proposed buffer zone (438.1 hectares) has been designed to protect the property's universal values in relation to its setting on Sydney Harbour. The buffer zone centres on the inner waters of the harbour and includes places around the harbour within a radius of 2.5 kilometres that have been identified as offering critical views to and from the Sydney Opera House.

ICOMOS considers that the proposed core zone includes all the physical components that express the property's outstanding universal values. The proposed buffer zone assures the proper management of the views from and to the Sydney Opera House. Construction regulations should be implemented in order to assure the conservation of the present features of shore landscape included in the buffer zone.

Ownership

The Sydney Opera House is publicly owned by the State Government of New South Wales (Ministry for the Arts). The administration and management of the property are the responsibility of the Sydney Opera House Trust under the *Sydney Opera House Trust Act 1961*.

Protection

Legal protection

Legislation and associated instruments have been established across national and state levels to ensure the comprehensive conservation and management of the heritage values of the Sydney Opera House. The property and its site are protected by being listed on statutory heritage registers at all levels of government, including specific provisions for managing their heritage values. The Sydney Opera House was included in the National Heritage List on 12 July 2005 under the *Environment Protection and Biodiversity Conservation Act 1999* and on the State Heritage Register of New South Wales on 3 December 2003 under the *Heritage Act 1977*. In 1980 the property was included in the Register of the National Estate which was established under the *Australian*

Heritage Commission Act 1975 and now maintained under the *Australian Heritage Council Act 2003*.

Listing in the National Heritage List implies that any proposed action to be taken inside or outside the boundaries of a National Heritage place or a World Heritage property that may have a significant impact on the heritage values is prohibited without the approval of the Minister for the Environment and Heritage. Actions must be subjected to a rigorous assessment and approval process. In 2005 the Australian Government and the New South Wales Government entered into a bilateral agreement for the Sydney Opera House. The agreement declares that actions approved by the New South Wales Government, in accordance with a bilateral accredited management plan, do not require approval by the Australian Government.

Australian Government and New South Wales Government legislation have provisions to impose financial penalties or imprisonment for actions that may have an adverse impact on the heritage values of the Sydney Opera House.

ICOMOS considers that the protective measures for the property are adequate to protect its outstanding universal values.

Conservation

Conservation history

Since the construction of the Sydney Opera House implied a long process that has not finished with its inauguration in 1973, conservation history is partly linked with the construction and development process, explained in the *History and development* section.

In 1993 James Semple Kerr was commissioned to write a conservation plan for the Sydney Opera House. In 1998 the Sydney Opera House Trust appointed Sydney architect Richard Johnson to advise on future development of the property and to establish planning principles. Through Johnson, the Trust began negotiations to reconcile with Utzon and to re-engage him with the building in an advisory capacity. In 2002 the Sydney Opera House Trust released the Utzon Design Principles, intended for future development in the framework of the conservation of the original design ideas. The adoption of the Sydney Opera House Conservation Plan (2003) assures the proper conservation and management of the property.

Present state of conservation

The present state of conservation is very good. The property is maintained and preserved through regular and rigorous repair and conservation programmes, as well as by scrutiny at the highest levels including the executive of the Sydney Opera House Trust and the New South Wales Government. All elements of the building and the site are currently in good physical condition.

Alternative sources have been located to replace original materials that are no longer available. The replacement of original material components is considered justified taking into account fragility of some modern materials in relation with aging and with the maritime building's setting.

ICOMOS considers that conservation measures and actions are adequate to preserve the property's values.

Management

Management structures and processes, including traditional management processes

The management structure of the Sydney Opera House takes into account a wide range of measures provided under planning and heritage legislation and policies of both the Australian Government and the New South Wales Government. As the property is registered at national and state levels, both governments share responsibility regarding protection and conservation, in the framework of the existing bilateral agreement.

At the national level, the Australian Council was established under the *Australian Heritage Council Act 2003*. The Council is an independent body of heritage experts that provides advice to the Minister for the Environment and Heritage on a range of heritage matters, including issues related to policies, protection, conservation and monitoring of places of the National Heritage List.

At the State level, the *Environmental Planning and Assessment Act 1979* provides for the proper management, development and conservation of the natural and built environment in New South Wales. The legislation requires that proposals comply with relevant planning controls and are environmentally and socially sustainable according to their nature and scale. Before a proposal can be undertaken on the Sydney Opera House site, it is subject to rigorous assessment by qualified planners, urban designers and heritage experts. This process involves consultation with the public and interested parties and identifies all likely impacts. Approval cannot be granted unless there has been an assessment and consideration of the impacts of the proposed action or proposal on the heritage values of the property. If approved, the proposal may be subject to conditions of approval to ensure that the heritage values are conserved and protected.

The *Heritage Act 1977* provides protection for places of natural and cultural heritage significance. It provides for the listing of heritage items or places on the State Heritage Register and the making of orders for their protection. Any development application for the property must be considered for approval by the New South Wales Heritage Council. In addition, the *Minimum standards of maintenance and repair*, created under the legislation, require that the Sydney Opera House is kept to a mandatory standard of care and maintenance. The property is also subject to guidelines that regulate heritage items owned by New South Wales Government agencies under the legislation. The *State agency heritage guide* sets standards for the day-to-day care of places owned by New South Wales Government agencies and establishes the integration of heritage matters into overall asset management.

The Sydney Opera House Trust was created in 1961 and is administered by the New South Wales Minister for the Arts. Functions of the Trust include the administration, care, control, management and maintenance of the property and the administration of the Sydney Opera House as a

performing arts centre. The Trust is advised by the Sydney Opera House Conservation Council on conservation issues. The Council is composed by representatives of the Trust, the Sydney Opera House Executive Committee, the Government Architect and government and private specialists with recognised experience in architecture, heritage and conservation matters, design, engineering and related disciplines and performing arts. Membership of the Council is foreseen to be enlarged with the inclusion of representatives of the New South Wales Heritage Office, the Department of Infrastructure, Planning and Natural Resources and the NSW Minister for the Arts.

ICOMOS considers that management structures and processes are adequate to assure the proper conservation and management of the property's values, integrity and authenticity.

Management plans, including visitor management and presentation

The *Management Plan for the Sydney Opera House 2005* was prepared by the New South Wales Government in consultation with the Australian Government in the framework of the existing bilateral agreement. The plan sets out the environmental assessment and approval requirements and the management arrangements that operate to protect the values of the property. The plan includes the Conservation Plan and the Utzon Design Principles. Together these three documents provide the policy framework for the conservation and management of the Sydney Opera House.

The plan provides a link between these practical documents and the legislation. It provides a sound basis for decision-making in relation to any future development and evolution, modification and change, as well as for the day-to-day management of the property including minor management proposals. All management decisions must be carried out in accordance with the plan.

Sydney Opera House: a plan for the conservation of the Sydney Opera House and its site 2003. The Conservation Plan is a highly effective management tool for the property. The plan identifies the heritage significance of the property, assesses the levels of heritage significance to be assigned to the various elements of the property and its fabric, contains detailed policies to manage the heritage values, and gives guidance on managing any necessary change or upgrade in vision for the building and its setting.

The *Utzon Design Principles* (2002) are a record of Utzon's vision for the building and its setting and his views about its future. As a reference document that explains the design principles of the building it provides a framework within which the building and site may evolve and develop to meet the changing demands of this major performing arts centre, while conserving the heritage values of the site and retaining its authenticity.

Involvement of local communities

Since the Sydney Opera House became a symbol not only of Sydney but of Australia, there is a high degree of public awareness on its values and significance.

Resources, including staffing levels, expertise and training

The Sydney Opera House is financed from a number of different sources. The administration and maintenance of the property and its operations are funded by New South Wales Government grants, earned income from the provision of facilities and services by the Sydney Opera House, corporate sponsorship and philanthropy. An annual endowment for the operations of the Sydney Opera House Trust is provided by the New South Wales Ministry for the Arts. The Ministry also funds ongoing building and maintenance requirements. In addition, the Australian Government may provide financial assistance for the identification, promotion, protection or conservation of a National Heritage place through initiative or incentive programs.

The Sydney Opera House Trust is in the position of managing the property with policies developed by one of Australia's most respected conservation consultants, James Semple Kerr (the Conservation Plan), and with the benefit of the principles set down by the building's creator, Jørn Utzon (the Utzon Design Principles). The Sydney Opera House Trust established a Conservation Council in 1996 to provide specialist advice about issues of heritage significance (see *Management structures* above). Its key responsibilities are to conduct annual inspections and review significant works, the Conservation Plan and expenditures. A range of professional, technical and maintenance staff are employed at Sydney Opera House on permanent, temporary and casual contracts.

In conclusion, ICOMOS considers that the management system for the property is adequate to assure the proper conservation and enhancement of its outstanding universal values, integrity and authenticity.

6. MONITORING

Formal monitoring systems with wide ranging indicators that measure the state of conservation are in place. The *Management plan for the Sydney Opera House 2005* establishes formal monitoring mechanisms and obligations for various parties regarding the management of the heritage values of the property.

A range of documents have been developed by the Sydney Opera House Trust to monitor the Sydney Opera House's state of conservation, protect its heritage values and manage its assets. These include a building standards manual; strategic building plans; strategic asset maintenance plans; emergency plans; security plans and policies; and a crisis management plan. These management tools are reviewed and updated regularly. They ensure that maintenance requirements and projected capital improvements are identified over a 25-year cycle.

The method of monitoring and assessing the conservation and condition of the property is encapsulated in Building Condition Indices that have evolved from quarterly condition monitoring reports. The Building Condition Indices database details thousands of individual building fabric inspections that are used to determine trends in the building's condition and to plan future preventative conservation works. It is also used by the Sydney Opera House staff responsible for the care of the building and by maintenance and cleaning contractors to assess the

condition of the property. The Building Condition Indices database has over 490 000 entries that detail the condition of every place, room, functional space, location zone and level of the building.

The internal administrative arrangements for monitoring the property's state of conservation are undertaken by the Trust's Facilities Portfolio, its staff and contractors. The Facilities Portfolio has responsibility for developing strategies and maintenance plans. A specialist technical department within the Facilities Portfolio is responsible for the ongoing care of the property. The Sydney Opera House's asset maintenance and planning framework requires the Building Conservation Contractor to conduct monthly or quarterly inspections. This periodic monitoring ensures quick identification and rectification of maintenance and conservation matters. The Sydney Opera House Conservation Council provides advice on the care, control and maintenance of the building.

In conclusion, ICOMOS considers that the monitoring measures for the property are adequate. Nevertheless, ICOMOS recommends identifying key indicators, related not only to physical components but also to uses and public use of the property (visitors).

7. CONCLUSIONS

ICOMOS recommends that the Sydney Opera House be considered bearing outstanding universal value based on its significance as one of the most prominent architectural works of the 20th century, encompassing remarkable achievements in buildings form and expression and structural and technical issues. The proposed core zone includes all the physical components necessary to express the property's values. The proposed buffer zone assures the preservation of the property's dramatic setting in Sydney Harbour.

The property meets successfully the conditions of integrity and authenticity. The protection, conservation, management and monitoring structures and processes demonstrate to be adequate to ensure the proper conservation and enhancement of the Sydney Opera House values, integrity and authenticity.

Recommendations with respect to inscription

ICOMOS recommends to the World Heritage Committee that the Sydney Opera House, Australia, be inscribed on the World Heritage List on the basis of *critterion i*:

Recommended Statement of Outstanding Universal Value

The Sydney Opera House constitutes a masterpiece of the 20th century architecture. Its significance is based on its unparalleled design and construction; its exceptional engineering achievements and technological innovation and its position as a world-famous icon of architecture. It is a daring and visionary experiment that has had an enduring influence on the emergent architecture of the late 20th century. Utzon's original design concept and his unique approach to building gave impetus to a collective creativity including architects, engineers and builders. The design represents an extraordinary interpretation and response to the setting in Sydney Harbour. The Sydney Opera House is

of outstanding universal value for its achievements in structural engineering and building technology. The building is a great artistic monument and an icon, accessible at society as large.

Criterion i: The Sydney Opera House is a great architectural work of the 20th century. It represents multiple strands of creativity, both in architectural form and structural design, a great urban sculpture carefully set in a remarkable waterscape and a world famous iconic building.

ICOMOS recommends that the State Party give consideration to the following in order to ensure the optimisation of the management system for the property and its buffer zone:

- Define and implement construction regulations for the buffer zone, especially in relation to the conservation of the current skyline of the shore landscape of Sydney Harbour.
- Consider how to reconcile the increase of visitor numbers with the proper functioning of the performing arts centre and with the preservation of the property's outstanding universal values, integrity and authenticity. Management of the property could be further enhanced by increased interpretation of its values to visitors.
- The interior spaces and material components should be considered as important as the exterior form and materials. They bear testimony of the specific history and process of design and construction of the building. It is thus recommended that conservation measures include original interior components as well as the consideration of different stages of construction and interior design as a part of the history of the property.



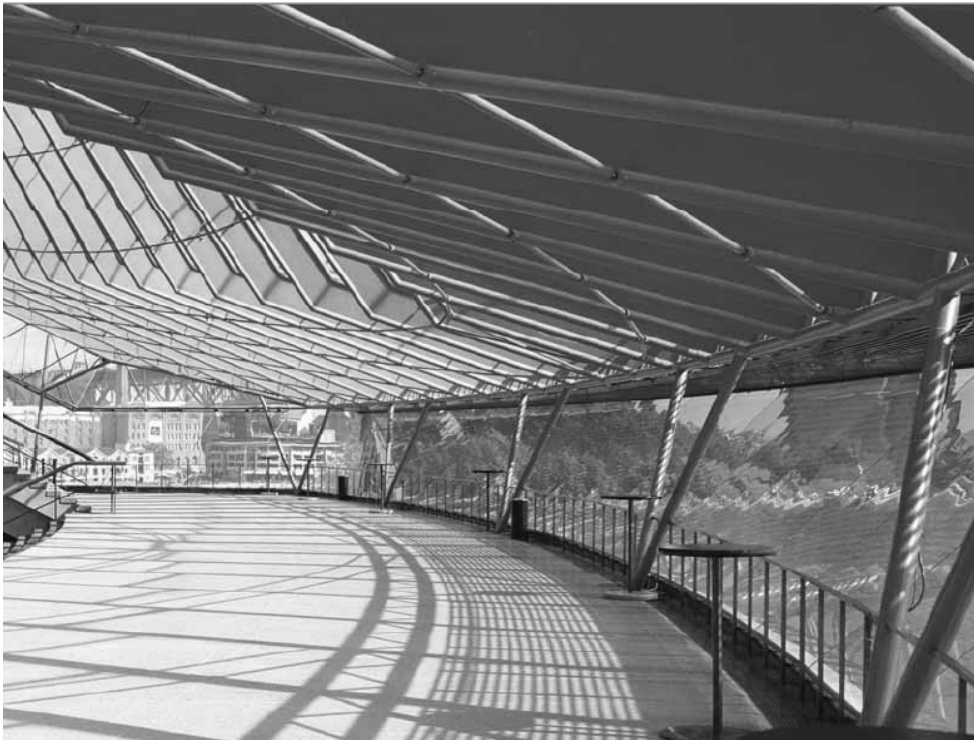
Map showing the boundaries of the nominated property



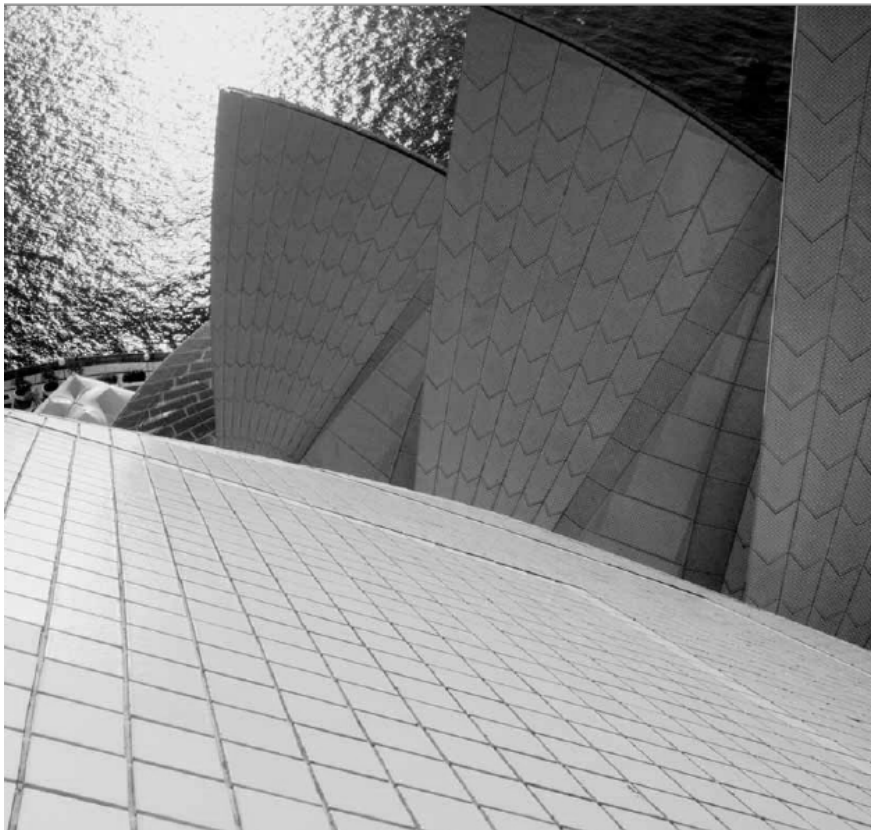
Aerial view of the site



Podium



Glass walls



Vaulted roof shells