



4 de noviembre de 2019

**H. Consejo Divisional
Ciencias y Artes para el Diseño
Presente**

En cumplimiento al mandato que nos ha conferido el H. Consejo Divisional a la *Comisión encargada del análisis de las solicitudes de periodos o años sabáticos y de la evaluación de los informes de actividades desarrolladas en éstos, así como del análisis y evaluación de las solicitudes e informes de la beca para estudios de posgrado*, se procedió a revisar el documento presentado como informe de sabático del **Dr. Francisco José Santos Zertuche**, adscrito al Departamento de Evaluación del Diseño en el Tiempo, en consecuencia se presenta el siguiente:

Dictamen

De acuerdo con la evaluación efectuada por esta Comisión, se encontró que se cumplió con el programa planteado para el disfrute del sabático, relativo a la realización de la investigación titulada "Homenaje a Jon Utzon, Sidney Opera House, Patrimonio Mundial de la Humanidad 1959-2019".

Cabe hacer mención que el informe se presentó en tiempo y forma.

Todos los miembros de la Comisión se manifestaron a favor del dictamen: Dr. Edwing Antonio Almeida Calderón, Dr. Fernando Rafael Minaya Hernández, Sandra Flores Velázquez y Asesor Dr. Gustavo Iván Garmendia Ramírez.

**Atentamente
Casa abierta al tiempo**



Mtro. Salvador Ulises Islas Barajas
Coordinador de la Comisión

24 de octubre de 2019

Ev.Ht.76.19


Dr. Marco Vinicio Ferruzca Navarro
Presidente del H. Consejo Divisional de CyAD
Presente.

Asunto: Corrección

En alcance al comunicado de EVHT.169.19 de fecha 18 de octubre, hago la corrección que el reporte de sabático corresponde al Dr. José Francisco Santos Zertuche y no al Dr. Oscar Alejandro Terrazas Revilla como se indica.

Agradeciendo de antemano la atención al presente, quedo de usted

Atentamente,
"Casa Abierta al Tiempo "


Mtro. Miguel Toshihiko Hirata Kitahara
Encargado del Departamento de Evaluación del
Diseño en el Tiempo

f
nt
22/10/19

18 de octubre de 2019

Ev.Ht.169.19

Dr. Marco Vinicio Ferruzca Navarro
Presidente del H. Consejo Divisional De CyAD
Presente

Asunto: Informe de actividades en periodo sabático con observaciones y reposición de 93 días naturales

En respuesta al oficio **SACD/CYAD/420/19** fechado el pasado 22 de julio de 2019 se presentan las observaciones realizadas así como las actividades adicionales en reposición de los 93 días naturales del **Dr. Oscar Alejandro Terrazas Revilla** integrante del Área De Estudios Urbanos del Departamento a mi cargo.

Sin más por el momento, reciba un cordial saludo.

Atentamente
"Casa Abierta al Tiempo"



Mtro. Miguel Toshihiko Hirata Kitahara
Encargado del Departamento de Evaluación
Del Diseño en el Tiempo

Ciudad de México, 17 de octubre de 2019

Mtro. Miguel Hirata Kitahara
Presente

Por este medio, te solicito de la manera más atenta, turnes al Consejo Divisional de CyAD, **el informe del trabajo elaborado durante el Periodo Sabático, complementario con observaciones y la reposición de 93 días naturales, del Dr. Francisco José Santos Zertuche.**

Agradezco tu atención y te envío un cordial saludo.

Atentamente
"Casa Abierta al Tiempo"



Mtra. Consuelo Córdoba Flores
Jefa del Área de Investigación en Estudios Urbanos
Departamento de Evaluación del Diseño

Ciudad de México a 16 de octubre de 2019

Mtra. Consuelo Córdoba Flores
Jefa del Área de Estudios Urbanos
Departamento de Evaluación del Diseño/CYAD

Presente

Asunto: Informe del Periodo Sabático,
complementario con observaciones y
la reposición de 93 días naturales.

Estimado Mtra. Córdoba Flores:

A solicitud e la Comisión correspondiente en el oficio **SACD/CYAD/420/19**, de fecha 22 de julio de 2019, por este medio presento **El Informe del Periodo Sabático**, complementario con las observaciones y las actividades adicionales en reposición de los 93 días naturales partir del 08 de mayo de 2019 al 09 de agosto de 2019; según lo autorizado por Consejo Divisional, oficio: **SACD/CYAD/313/19**, de fecha 4 de julio de 2019; durante el cual realicé algunas actividades complementarias al proyecto "Homenaje a Jørn Utzon, Sydney Opera House. Patrimonio Mundial de la Humanidad 1959-2019".

Agradezco la atención y trámite que se sirva dar a la presente.

Atentamente
Casa abierta al tiempo



Dr. Francisco José Santos Zertuche

Profesor-investigador
Departamento de Evaluación del Diseño
Area de Estudios Urbanos
Nº económico 682

INFORME DEL PERIODO SABATICO

PRESENTO ESTE INFORME POR SEGUNDA OCASIÓN ATENDIENDO LAS OBSERVACIONES HECHAS POR LA COMISIÓN DEL CONSEJO DIVISIONAL CORRESPONDIENTE, según los oficios: **SACD/CYAD/358/19**, de 10 de julio de 2019¹; y **SACD/CYAD/420/19**, de 22 de julio de 2019 en el que se me solicita que “informe al órgano colegiado de las modificaciones realizadas al programa de actividades académicas motivo de la reposición de los días naturales del sabático.”

DR. FRANCISCO JOSÉ SANTOS ZERTUCHE

Departamento de Evaluación del Diseño

Area de Estudios Urbanos

Núm. Eco. 682

¹ El periodo sabático fue autorizado a partir del 08 de enero de 2018 al 07 de mayo de 2019, según el oficio SACD/CYAD/749. El informe correspondiente se presentó a la Jefatura del Área de estudios Urbanos el 5 de julio de 2019. El Consejo Divisional aprobó la “reposición de los 93 días naturales”, en la Sesión 564 Ordinaria del Cuadragésimo Cuarto Consejo Divisional del 4 de julio de 2019, según oficio SACD/CYAD/313/19.

Titulo del proyecto:

**Homenaje a Jørn Utzon
SYDNEY OPERA HOUSE
PATRIMONIO MUNDIAL DE LA HUMANIDAD
1959-2019**

ÍNDICE DEL INFORME²

A. Descripción de las actividades realizadas en tres etapas.

En el programa de actividades propuesto y aprobado inicialmente en la solicitud del sabático se estableció que sería desarrollado en **tres etapas** entre el trimestre 18-I y 19-I. Con motivo de la huelga y la aprobación de la reposición de los 93 días incluyo en este Informe una **cuarta etapa** que surgió de esa situación extraordinaria no planeada. Se menciona abajo.

PRIMERA ETAPA. Se realizó una identificación, recopilación y estudio de la bibliografía y hemerografía publicadas. Asimismo, una identificación de fuentes primarias de documentos en archivos digitales internacionales disponibles en internet referentes a los propósitos del tema en Homenaje al arquitecto Utzon y la historia del edificio de la Opera de Sydney. Estas actividades fueron desarrolladas durante los trimestres 18-I y 18-P.

² "...el informe detallado será un documento por escrito que deberá contener lo siguiente: a) Descripción de las actividades realizadas; b) Resumen de los problemas abordados; c) Mención de los aspectos metodológicos más relevantes; d) Descripción del resultado parcial o total alcanzado; e) Presentación de los materiales producidos. Véase "Lineamientos para el disfrute del periodo sabático..." Consejo Divisional. 07 de mayo de 2018.

SEGUNDA ETAPA. En esta se hizo un estudio de búsqueda, localización y recopilación de información propiamente arquitectónica del edificio centrada en documentos gráficos tales como esquemas, mapas, planos y fotografías relacionados con el concepto arquitectónico, la elaboración y desarrollo del proyecto arquitectónico, y finalmente las etapas de la construcción. Todas estas actividades fueron desarrolladas durante los trimestres 18-P y 18-O, parcialmente traslapadas con la primera etapa.

TERCERA ETAPA. Las actividades se dedicaron al estudio de los documentos que se produjeron durante el proceso que el gobierno australiano realizó ante la Unesco para promover y obtener la declaratoria oficial para que el edificio de la Opera de Sydney fuese incluido en la "Lista del Patrimonio de la Humanidad". Dicho proceso culminó el año 2007, precisamente un año antes del fallecimiento del arquitecto Jørn Utzon. Estos trabajos se desarrollaron durante los trimestres 18-O y 19-I, (este último resulto coincidente con el periodo de la huelga de 93 días).

CUARTA ETAPA. (PERIODO DE REPOSICIÓN POR LA HUELGA).

Dados los ajustes de fechas que tuvieron lugar entre mayo y julio de 2019, decidí continuar con la elaboración del Informe que presenté el 5 de julio de 2019, y la Comisión de Sabáticos me contestó que debía atender las observaciones que me fueron señaladas, así que dediqué el tiempo necesario al respecto. Destaco que se me pidió que presentase el Informe "en idioma español", (la traducción la consideré una actividad adicional en esta cuarta etapa y la realicé). Sin embargo, dejo constancia de que no encontré ninguna disposición reglamentaria oficial que me obligue sobre el particular.

B. Resumen de los problemas abordados.

Tal como quedó planteado en la propuesta para el proyecto del periodo sabático, cito:

"En homenaje por el centenario del nacimiento del arquitecto Jørn Utzon (1918-2008), me dedicaré a estudiar cronológicamente (1959-2019), los documentos y referencias de la obra **Sydney Opera House**. Se trata un caso emblemático, debatido y apreciado mundialmente de la historia de la arquitectura del siglo XX, cuyo origen conceptual arquitectónico está vinculado al patrimonio cultural de México. Asimismo, estudiaré los documentos del proceso internacional de nominación que culminó en la UNESCO al decidir, dado su valor excepcional, incluirla en la **Lista del Patrimonio de la Humanidad** hace una década, en 2007, justo un año antes del fallecimiento del arquitecto que ocurrió el 29 de noviembre del 2008".

op. Cit de la propuesta del proyecto de sabático aprobada.

Se puede apreciar que la naturaleza del tema implicaba diversos de problemas de carácter metodológico. En especial problemas de acceso a la información a cerca de los "documentos y referencias de la obra", así como sobre el estudio y valoración propiamente dicho de los materiales identificados. Brevemente se comentan a continuación por periodos:

Periodo 1955-1963. La investigación mostró los afanes de las autoridades y la comunidad cultural para crear este edificio desde 1947, así que se abordó -en la medida que lo permitieron las fuentes- el problema de la cronología de eventos hasta el año 2007, como un camino de solución alternativo. Algunos de los eventos relevantes se resumen a continuación y encontré diferentes problemas particulares en cada una de ellos.

El 13 de septiembre de 1955 el Government of the State of New South Wales (Gobierno del Estado de Nueva Gales del Sur), la Secretaría Ejecutiva del Comité Oficial de la Opera House y el Gobierno Local de

Bridge & Phillips Streets anunciaron un concurso internacional para el diseño de "una ópera house". Se propuso un programa de necesidades sintético: el edificio debería adecuarse para muchas manifestaciones de las artes, tendría dos salas principales, una para 3,000-3500 espectadores y la otra para 1,200 personas, y adicionalmente un restaurante y dos grandes salas de reuniones. La convocatoria fue autorizada por the Royal Australian Institute of Architects y la International Union of Architects. Se registraron y participaron 233 arquitectos de 32 países. El arquitecto Jørn Utzon ganó el primer premio. Entre 1957 y 1963 se desarrolló el proyecto arquitectónico y la primera etapa de las obras de construcción. Este periodo tiene diversos problemas de acceso a la información, disponibilidad, clasificación y el estudio analítico correspondiente.

Periodo 1963-1967. Se inicia la etapa de construcción de las bóvedas o conchas. Los cambios en las autoridades gubernamentales, los retrasos en las obras y los costos generan problemas en cierta forma de ello se derivó que el arquitecto Utzon renunciase al proyecto en 1966 y abandone la ciudad de Sydney. Pero aún con una serie de cambios y serios problemas en el desarrollo de las obras se completa la 2a etapa de construcción en 1967.

Periodo 1967-2007. Es un periodo de muy difícil estudio. Logré avances aislados en cuanto a la búsqueda de información y la identificación de documentación. Destaco el documento de Unesco de 2007 que otorga al edificio Sydney Opera House su inscripción en la Lista del Patrimonio Mundial.

c) Mención de los aspectos metodológicos más relevantes

Este proyecto fue planteado a partir de buscar las principales fuentes, tanto bibliográficas publicadas, como fuentes primarias que se conservan en archivos históricos y son documentos originales, con este enfoque que es propiamente el quehacer del historiador que hace investigación usando la metodología de la historia profesional, lo cual permite una aproximación académica a la generación de conocimientos que se basan en un acopio de información y resultados, innovadores y originales frente a la muy amplia circulación de informaciones de divulgación frecuentemente hechas con premura noticiosa.

d) Descripción del resultado parcial o total alcanzado

El tema del proyecto se planteó deliberadamente con la idea de hacer una apreciación con sentido amplio, el programa de actividades se precisaba estudiar una visión histórica panorámica acotada así: apreciar los aspectos de proyecto arquitectónico, estructural y constructivo, y finalmente, explorar lo esencial e la documentación que se generó para la nominación de inscribir este monumento en la Lista del Patrimonio Mundial del siglo XX de Unesco, también se estudiaron los criterios básicos que explican los valores que le daban un carácter excepcional. Así pues, el resultado alcanzado es indudablemente parcial pero ofrecen una visión unitaria, destacando la trayectoria del arquitecto Jørn Utzon desde el principio en que ganó el primer premio del concurso internacional al final de su vida.

e) Presentación de los materiales producidos.

Los materiales se organizaron en dos conjuntos.

PRIMERA PARTE

Presentación

ESTUDIO HISTÓRICO-ARQUITECTÓNICO, basado en documentos, mapas, planos y fotografías que incluye los siguientes aspectos: el concurso y el diseño conceptual, el desarrollo de los planos del anteproyecto, las etapas del diseño constructivo y estructural, y un estudio fotográfico

SEGUNDA PARTE

ESTUDIO DEL PROCESO INTERNACIONAL DE NOMINACIÓN, para incluir el monumento Sidney Opera House Patrimonio Mundial de la Humanidad, 2007. Para lo cual se estudió el documento de Unesco que incluye los criterios de la acreditación. Finalmente se presenta una selección bibliográfica y otras referencias.

Presentación

Ópera de Sidney

Inaugurada en 1973, la Ópera de Sidney es una de las obras arquitectónicas más importantes del siglo XX. Su edificio es todo un compendio de múltiples corrientes creativas e innovadoras, tanto en lo que respecta a sus formas arquitectónicas como en lo referente a su diseño estructural. Asentada en un paisaje marítimo excepcional, al extremo de una península prominente que se adentra en el puerto de Sidney, esta grandiosa escultura urbana ha ejercido una influencia perdurable en la historia de la arquitectura. El edificio está compuesto por tres grupos de "valvas" abovedadas y entrelazadas (vaulted 'shells') que albergan las dos salas principales de espectáculos y conciertos, así como un restaurante. Esta estructura en forma de valvas se asienta en una vasta plataforma, rodeada de amplias terrazas, que cumplen la función de paseos peatonales. Fue en 1957 cuando un jurado internacional adjudicó al arquitecto danés Jørn Utzon la ejecución del proyecto, que se caracterizó por un planteamiento radicalmente nuevo de la construcción.

Presentación

PRIMERA PARTE

ESTUDIO HISTÓRICO-ARQUITECTÓNICO

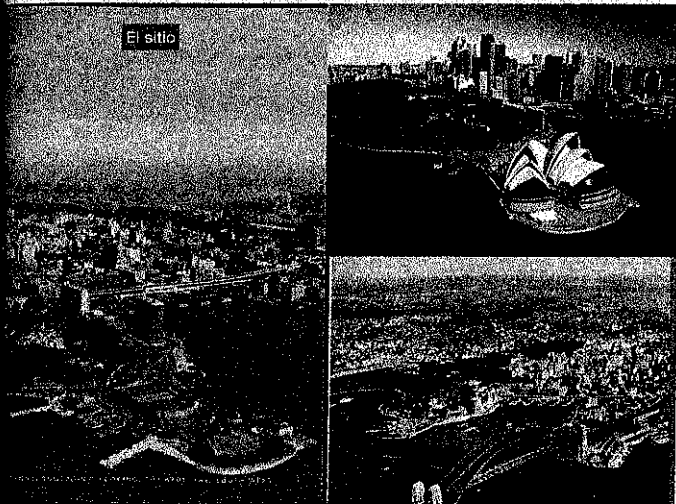
Selección de documentos, mapas, planos y fotografías.

El Concurso y el Diseño Conceptual

El Desarrollo de los Planos del Anteproyecto y la obra estudio fotográfico

Etapas del diseño constructivo y estructural, estudio fotográfico.

El sitio



Condiciones del Concurso

Conditions of Competition

This Competition has been approved by the Royal Australian Institute of Architects and the International Union of Architects.

Throughout these Conditions:

"Promoters" shall mean the Government of the State of New South Wales.

The "Secretary" shall mean the Secretary and Executive Officer of the Opera House Committee, c/o Department of Local Government, Bridge & Public Works, Sydney, Australia.

1. Invitation

The Promoters invite all Architects, who are members of their respective Architectural Institutes in any country in the world, to submit designs in competition for—

A proposed National Opera House, to be sited on Bennelong Point, Sydney, Australia.

In accordance with these Conditions and the Appendixes thereto, here part of these Conditions.

The winner of the Competition shall become registered in New South Wales as an Architect under the Architects Act, 1931-1936, before he can be appointed.

The qualifications for registration in New South Wales are set forth in Appendix 1.

2. Register

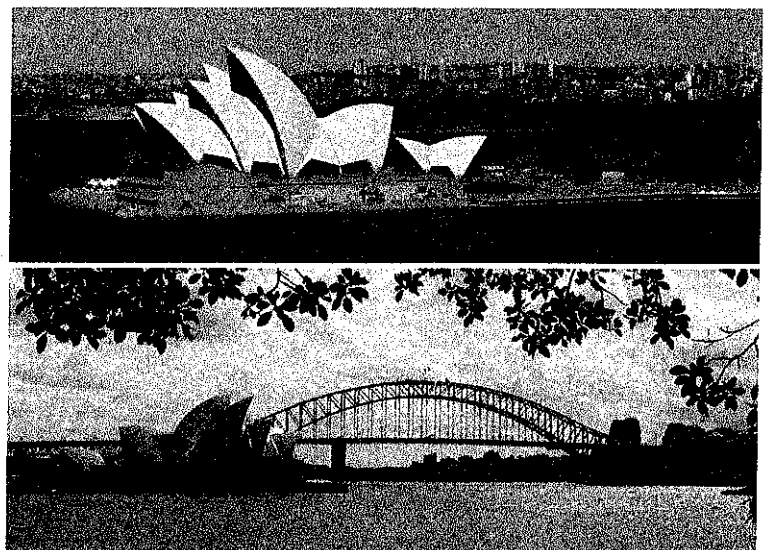
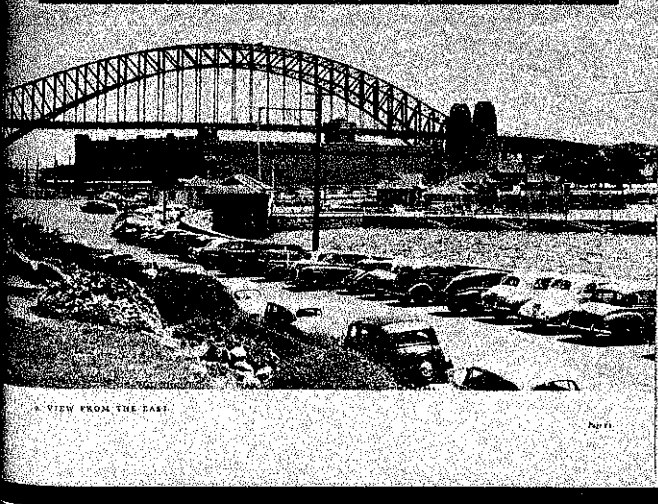
Every intending competitor shall register his name and address in writing with the Secretary, not later than 13th March, 1957.

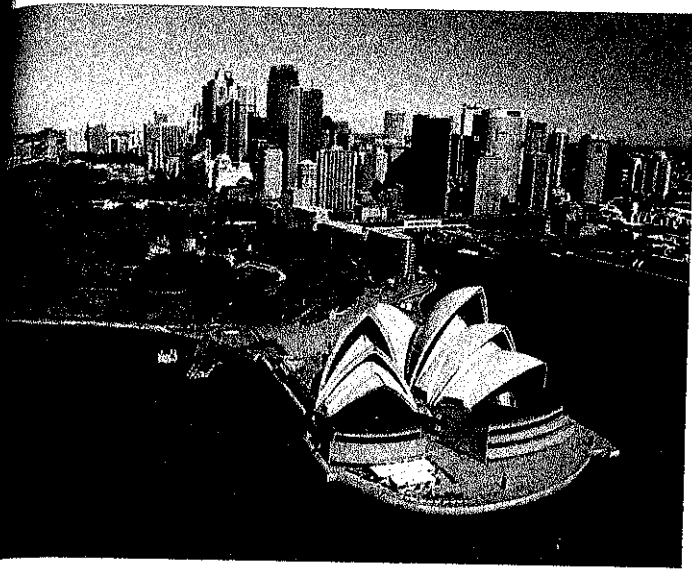
The register shall be confidential and the names of the competitors shall not be disclosed until the Promoters have made an award.

Competitors entry should be set of these Conditions by depositing the sum of £1000, or its equivalent, with the Secretary. This sum will be refunded to those Architects who submit a bona fide design. Refundation is to be made payable to the Government of New South Wales.

Designs will not be accepted from any person other than those whose names appear on the register.

El sitio y terreno destinado al proyecto. Vista desde el Este



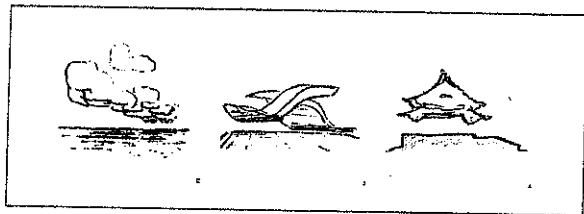


7

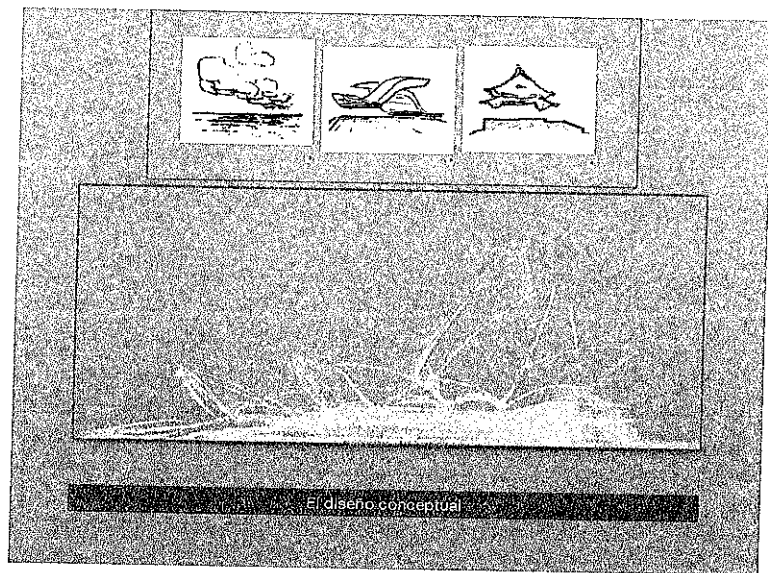


8

El diseño conceptual

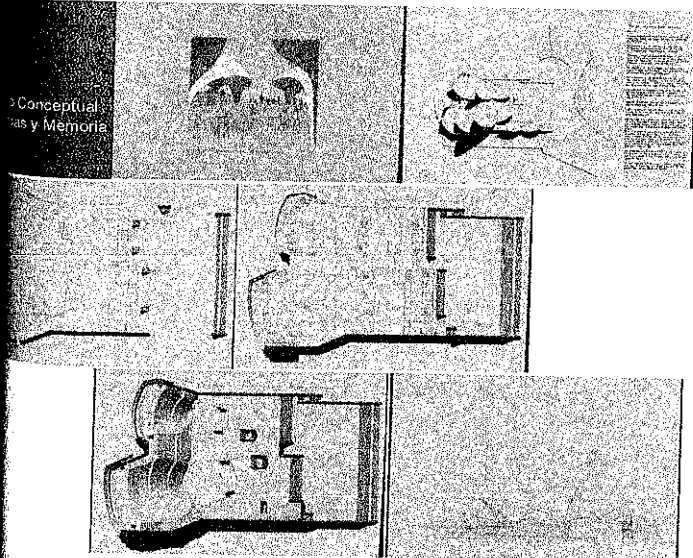


9

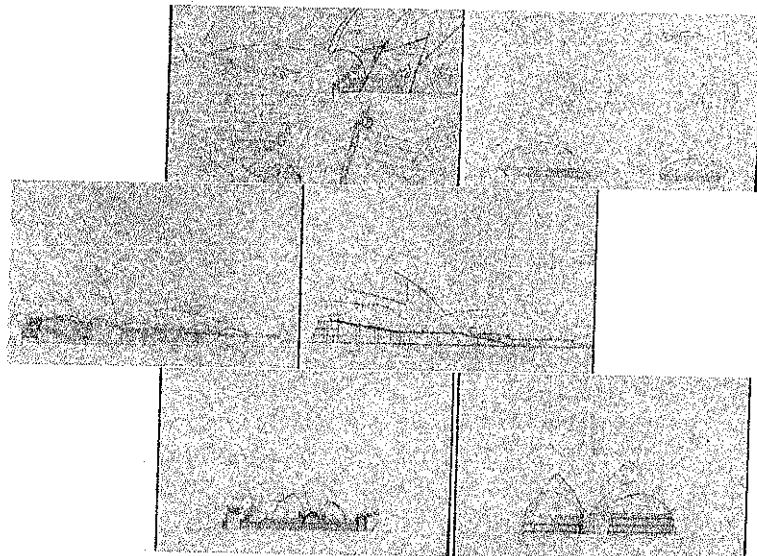


10

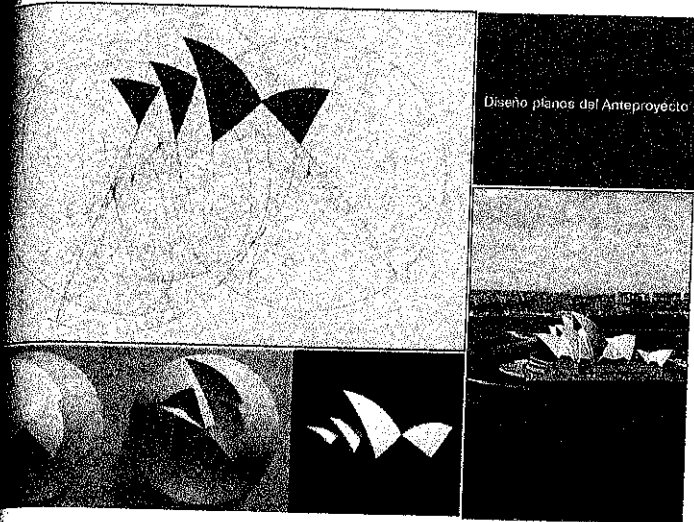
Conceptual
Mas y Memoria



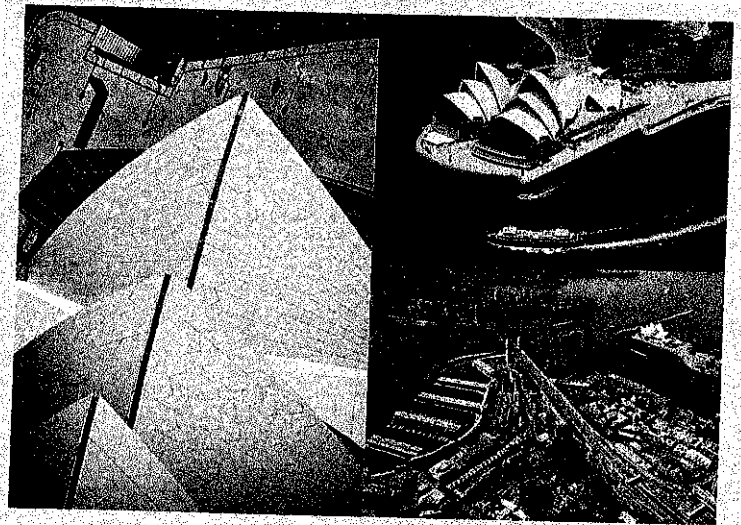
11



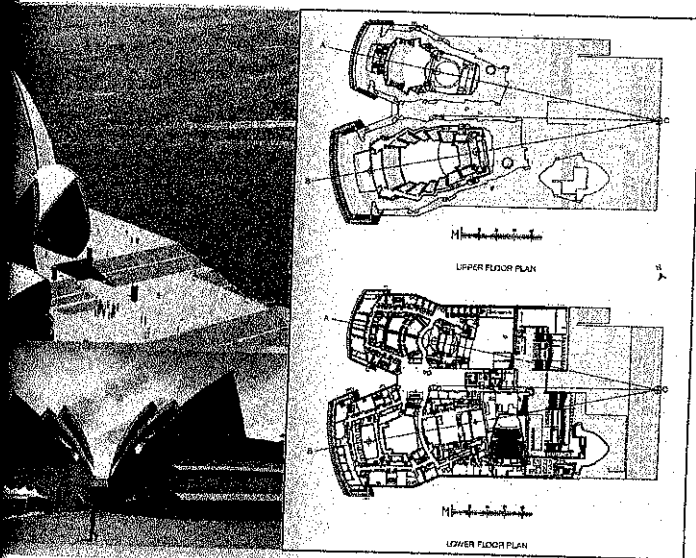
12



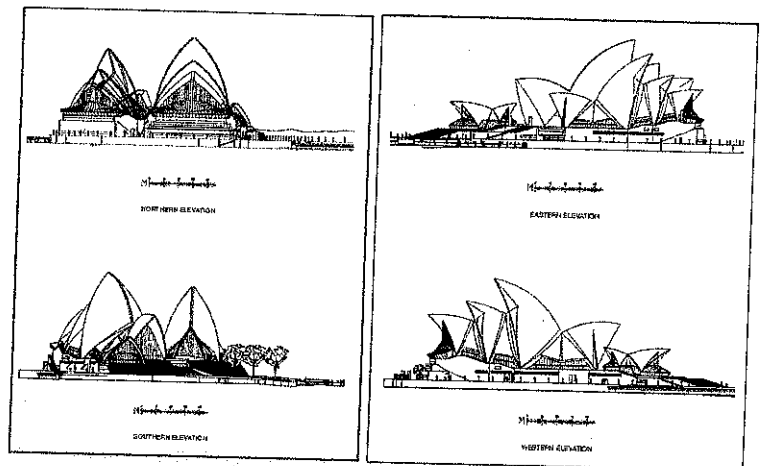
13



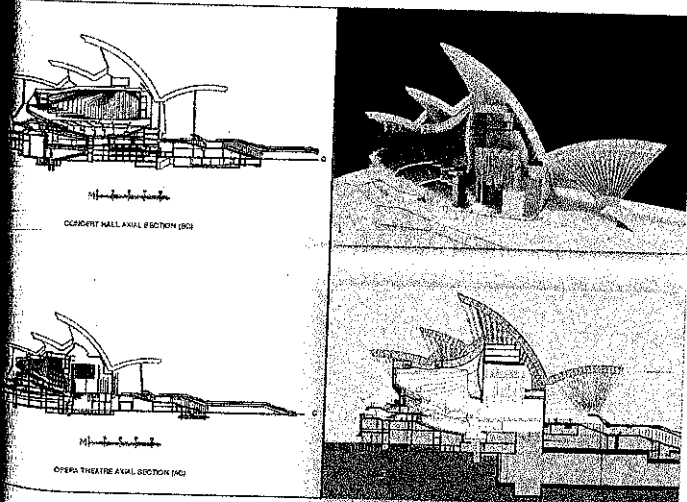
14



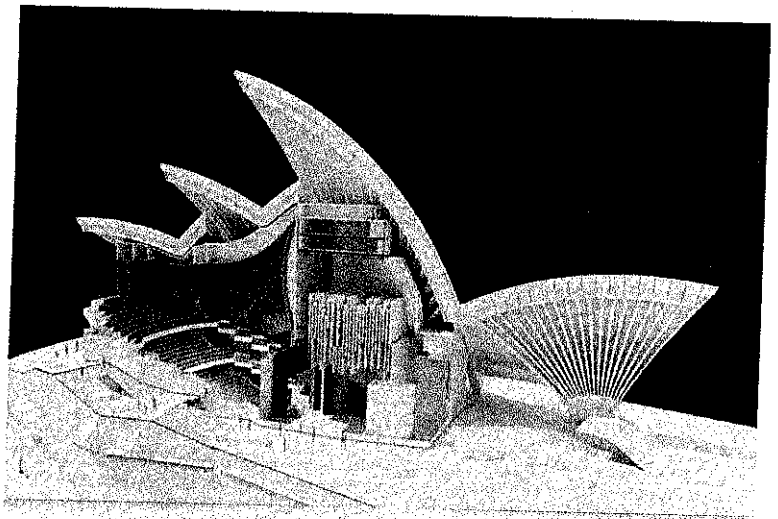
15



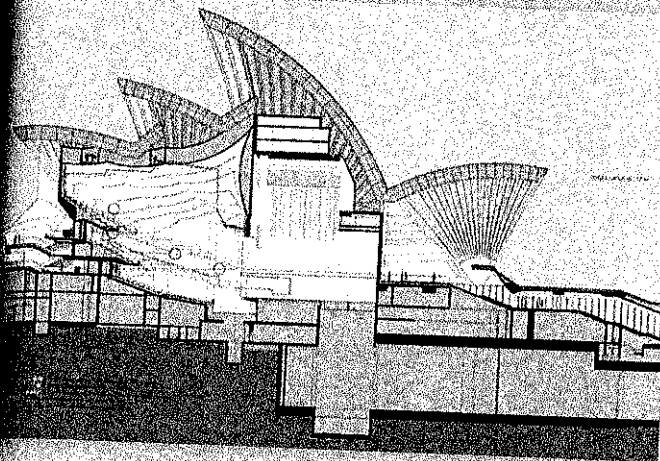
16



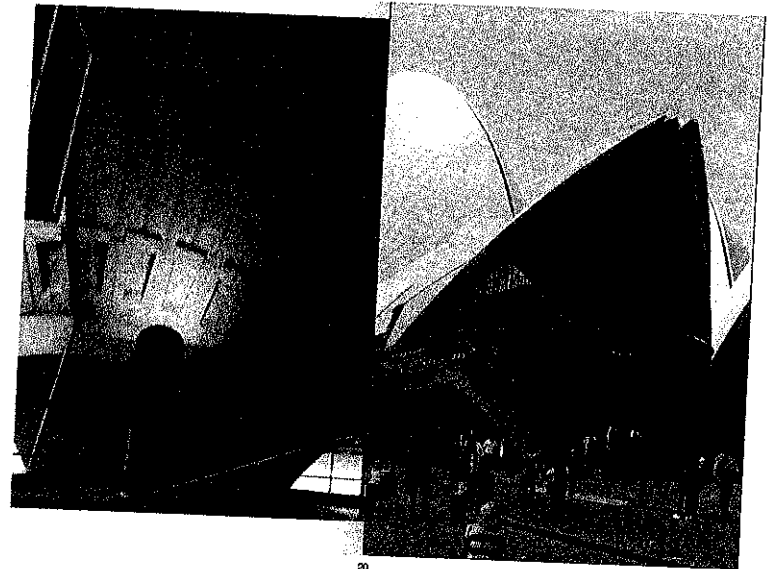
17



18

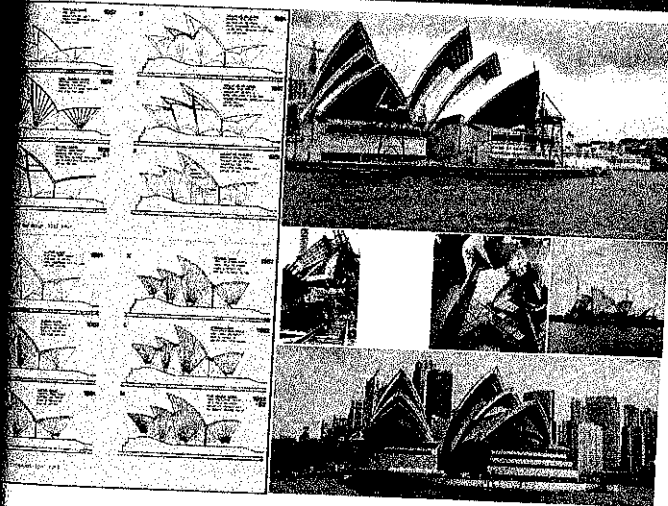


19

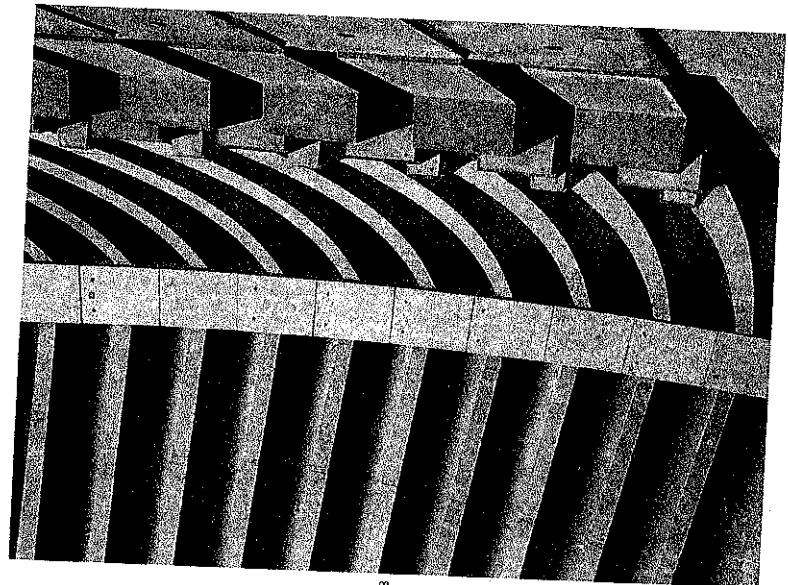


20

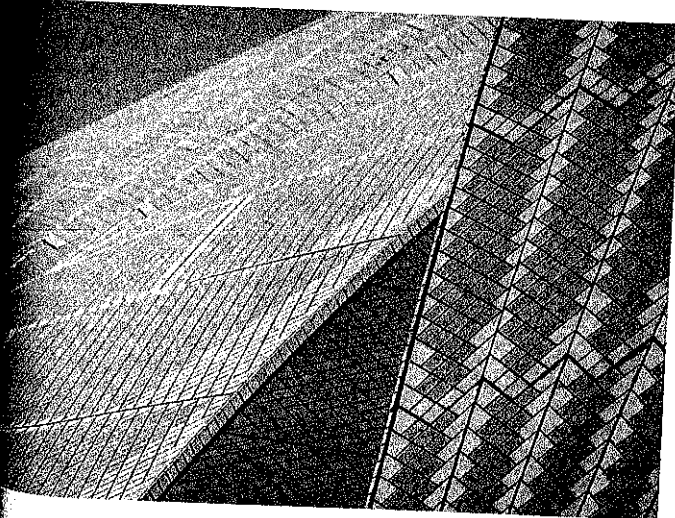
ETAPAS DEL DISEÑO CONSTRUCTIVO Y ESTRUCTURAL 1957-1963



21



22



23

Recubrimiento de azulejo de las bóvedas

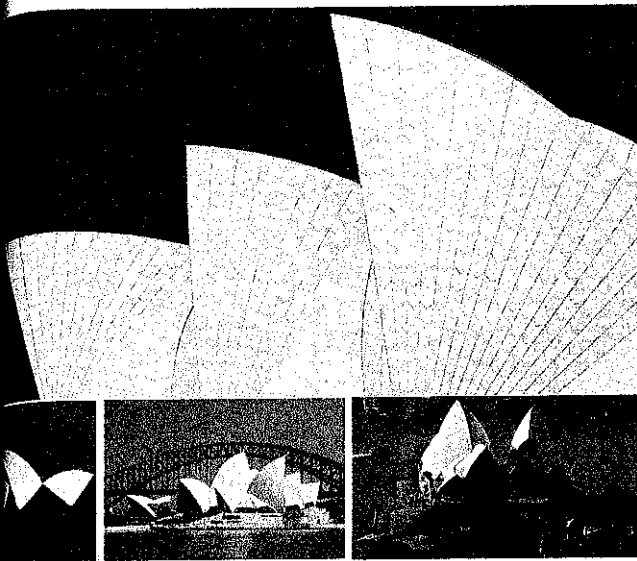
La Opera House se completó por otros diseñadores bajo la dirección del arquitecto Peter Hall. Sin embargo, Utzon pudo empapar la referente a la estructura básica, dejando que los interiores fuesen terminados por otros.

Dado que Utzon dejó el proyecto en 1966 hasta que las conchas o bóvedas fueron construidas, a menudo es poco claro este asunto. Algunos han reclamado que las "paredes de vidrio" Some have claimed that the "glass walls" were "fueron construidas y modificadas por el sucesor de Utzon el arquitecto Peter Hall." No hay duda que alguna que se emitieron en general diseños sobre las formas geométricas de las bóvedas dispuestas sobre la plataforma.

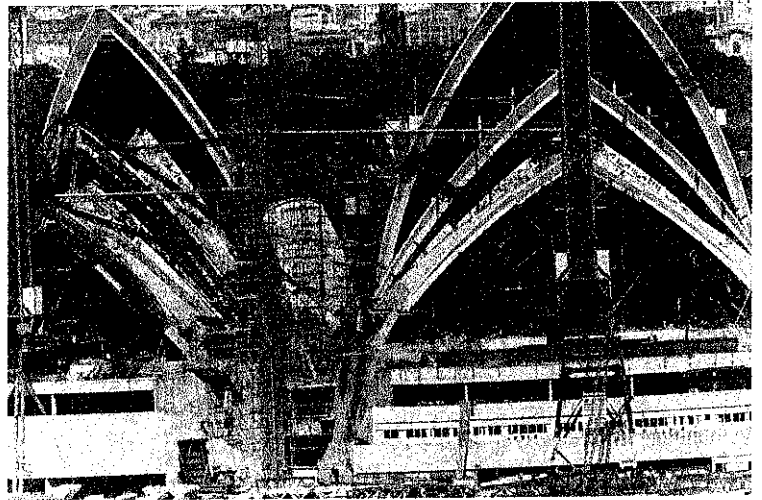
Utzon no visualizó que las bóvedas o conchas se hayan sacado de una esfera. Él quería que lucieran como velas brillantes sobre las oscuras aguas australianas. Pero después de varios años de experimentación un nuevo tipo de azulejo fue inventado. — "la loseta Sydney, cuadrada de 120 mm, hecha con un porcentaje de arcilla mezclado." La piel del techo tiene 1,056,006 piezas de estos azulejos.

UNESCO reportó que "la solución del diseño y construcción de la estructura de las bóvedas o conchas tomó ocho años para terminarse y que el desarrollo especial de los azulejos de cerámica tomó mas tres años."

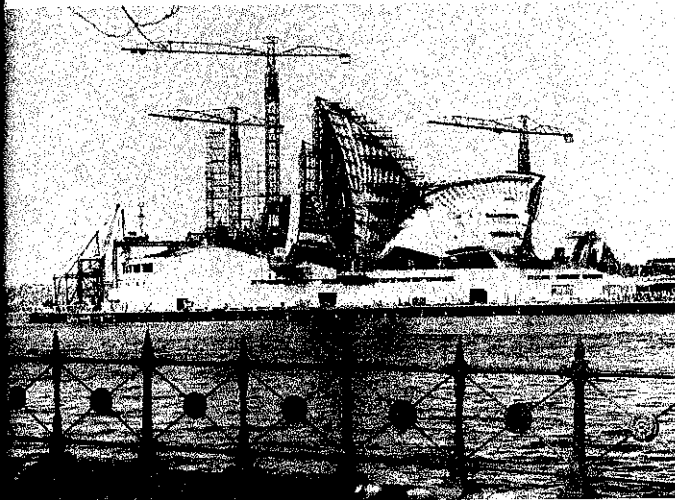
24



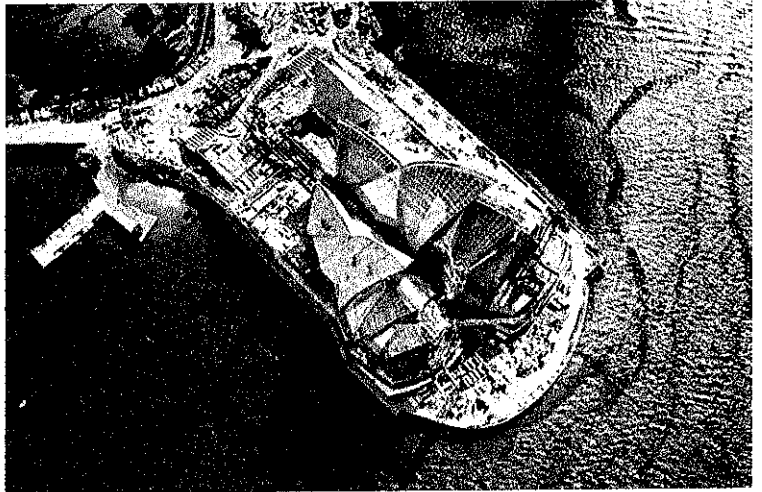
25



26

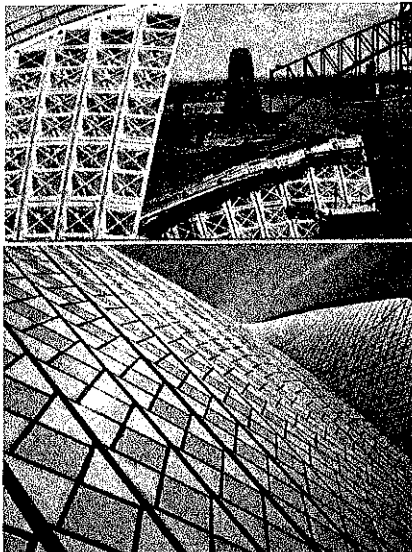


27

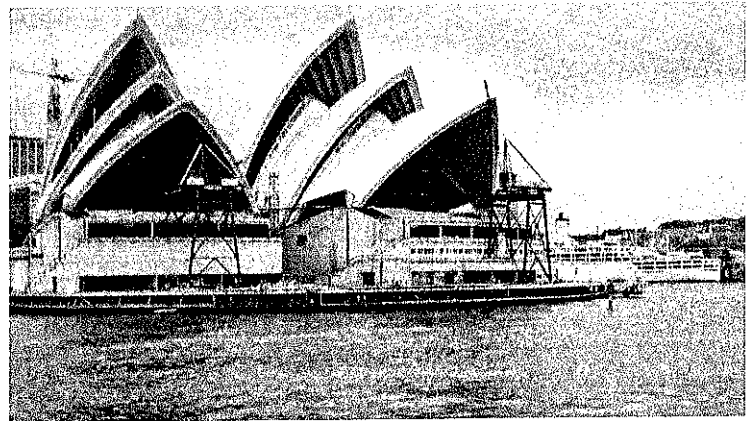


28

El material de construcción
 anterior incluyó "segmentos de
 costillas prefabricadas
 andose forma creciente hacia
 ga y un pedestal de concreto
 andose a un haz de la cresta
 vestida de un tono de tierra,
 de paneles de granito
 onstruido" El diseño era para
 las bóvedas o conchas se
 cubrieran con azulejos
 esmaltados de color
 quecino. Utzon llamó a este
 proceso de construcción
 "active architecture," donde se
 unieron los elementos
 abricados para crear un todo.



29



30

SEGUNDA PARTE

ESTUDIO DEL PROCESO INTERNACIONAL DE NOMINACIÓN.
SYDNEY OPERA HOUSE PATRIMONIO MUNDIAL DE LA HUMANIDAD
Documento de Unesco
Argumentos y criterios de la acreditación
Bibliografía

31

Documento Unesco

Identificación

Nominación:

Sydney Opera House

Ubicación: Sydney, New South Wales/S33 51 24 E151 12 55

Estado Parte: Australia

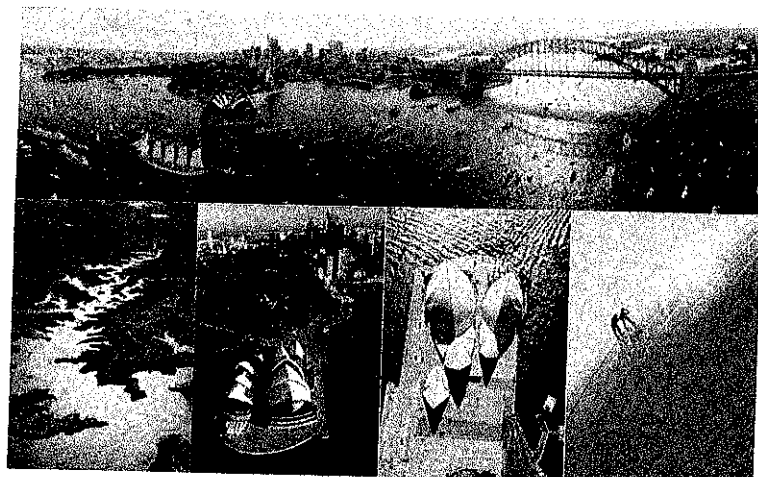
Fecha de inscripción: 2007

Criterios: (i)

Propiedad: 5.8 ha

Zona de amortiguamiento: 438.1 ha

32

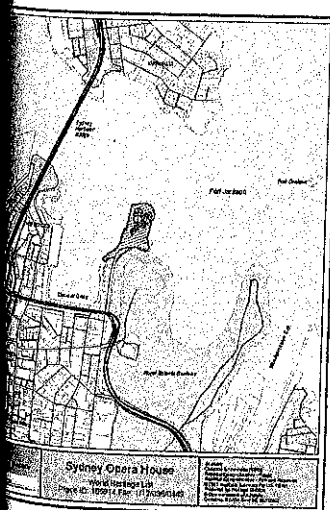


33

Criterio (i)

Sydney Opera House es una gran obra de arquitectura del siglo XX. Representa múltiples líneas de la creatividad, tanto en las formas arquitectónicas como en el diseño estructural, es una gran escultura urbana cuidadosamente ubicada en un paisaje acuático notable, un edificio emblemático de fama mundial.

34



35

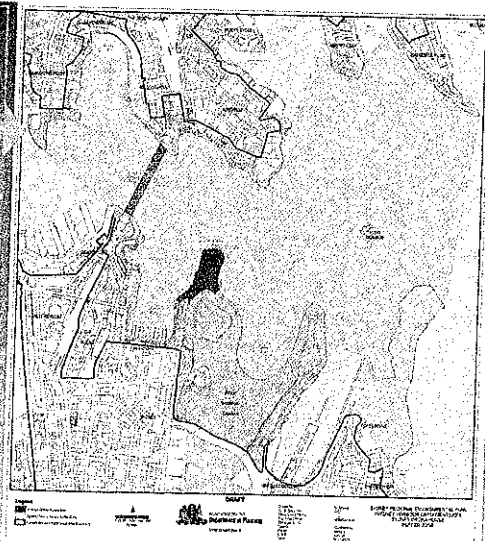
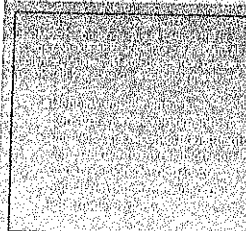
Breve description

La obra Sydney Opera House está situada en la punta de una península prominente que se proyecta hacia el Puerto de Sydney y muy cerca del Royal Botanic Gardens y del Sydney Harbour Bridge.

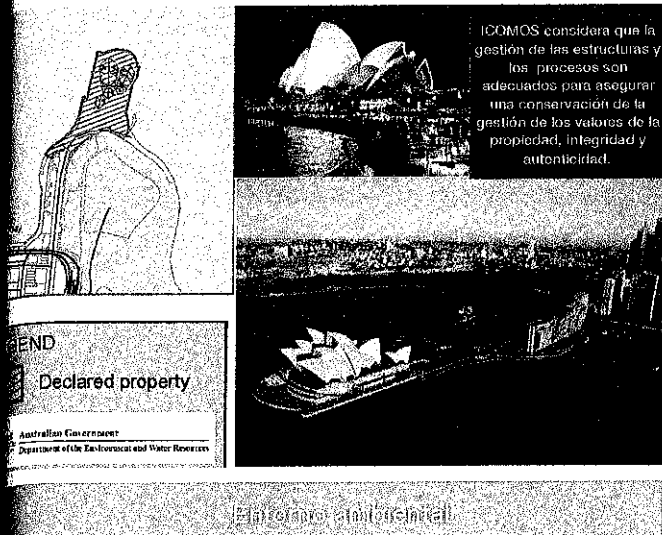
La forma arquitectónica comprende tres grupos de conchas abovedadas entrelazadas (techando respectivamente las dos salas de espectáculos principales y un restaurante) está colocada sobre una vasta plataforma, 'el podium', rodeado de terrazas que funcionan como paseos para paseos peatonales. El complejo incluye también más de 1000 habitaciones muchas de las cuales están ubicadas dentro del podium, como prácticamente están todas las funciones técnicas del centro de artes y espectáculos.

Delimitación ambiental y urbana

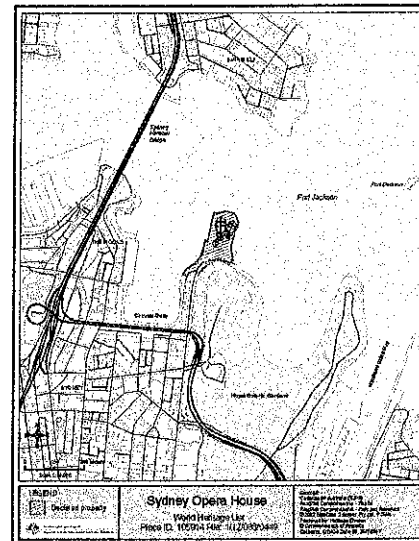
Parámetro de la zona de amortiguamiento



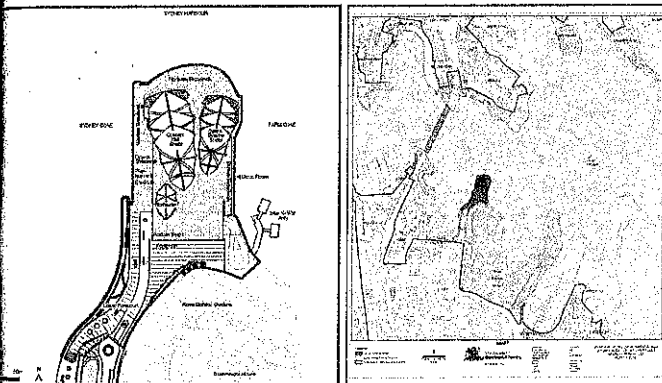
36



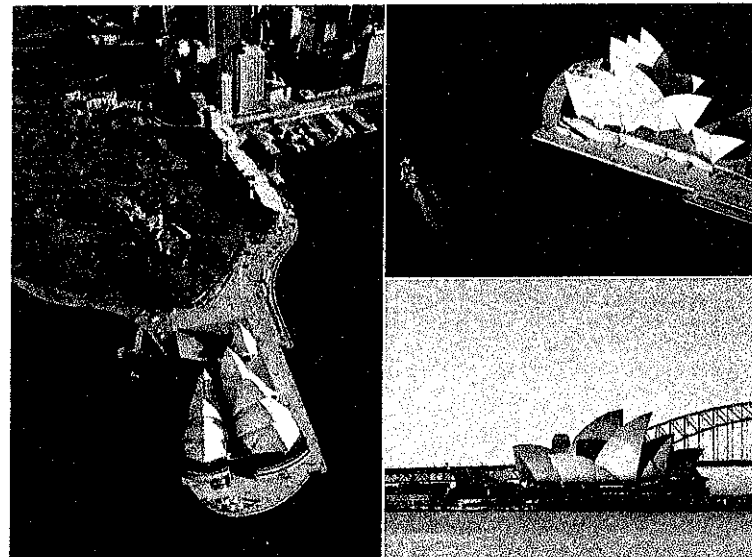
37



38



39



40

Documento Unesco La Propiedad

Descripción

La forma arquitectónica comprende tres grupos de bóvedas o conchas enclavadas, puestas en una vasta plataforma adosada (el podium) rodeada por terrazas que tienen la función de pasillos peatonales. Dos grandes estructuras de bóvedas o conchas cubren dos lugares principales de espectáculos conocidos como La Sala de Conciertos y El Teatro de la Ópera. El tercer conjunto de conchas que domina Sydney Cove fue diseñado especialmente para albergar un restaurante. Las dos grandes salas están dispuestas una al lado de la otra, orientadas norte sur con sus ejes fuertemente inclinados. El auditorio está ubicado en extremo norte alto del podium entonces se enfrentan al sur hacia la ciudad, con áreas que permanecen posicionadas entre ellas y la entrada de los vestíbulos. La más alta de la bóvedas o conchas alcanza 20 plantas de edificios encima del agua. Las estructuras de las bóvedas o conchas cubren casi dos hectáreas y el total de la propiedad son casi seis hectáreas. El complejo incluye más de 1000 habitaciones, la mayoría de las cuales se encuentran dentro del podium así están prácticamente reunidas todas las funciones técnicas del centro de artes escénicas.

41

Documento Unesco La Propiedad

Historia y Desarrollo

El mayor centro cultural para Sydney y su ubicación en el Bennelong Point fue discutido desde los años 1940. En 1956 el Gobierno de Nueva Gales del Sur convocó a una competencia internacional de diseño y estableció un jurado independiente en lugar de encargar el asunto a una empresa local. El resumen del concurso proporcionó breves especificaciones generales para atraer los mejores talentos de diseño del mundo; no se especificaron parámetros de diseño o establecieron límites de costo. El principal requerimiento del concurso fue brevemente que el diseño considerase la función dual de edificios para dos salas de espectáculos.

La historia de la Sydney Opera House es tan extraordinaria y compleja como su visión histórica, valor, creencia, dedicación, desafío, controversia y triunfo. Tiene muchos elementos muy destacables como la presentación de un diseño visionario que los jueces valientemente seleccionaron como ganador; la asociación colaborativa entre el arquitecto y el ingeniero triunfó sobre enormes posibilidades para producir una solución de construcción de las bóvedas o conchas que fue tan innovadora como ingeniosa; la brecha creada por la calidad de Utzon del proyecto en 1966 por la polémica frente a los costos controvertidos y excesos de tiempo; el re-enganche de Utzon con su proyecto tres décadas más tarde para supervisar futuros cambios de la Sydney Opera House.

42

Documento Unesco
Valor Universal Excepcional

Integridad

Todos los elementos para expresar los valores de la Sydney Opera House están incluidos dentro de los límites del área de amortiguamiento nominada. Esto asegura la completa representación de su significación como un objeto arquitectónico de gran belleza en su entorno de paisaje acuático.

La zona de amortiguamiento propuesta refina la relación entre el monumento y su entorno que ha sido identificado como una contribución para su valor. Todos los elementos de la propiedad que contribuyen para su significación patrimonial han sido identificados en políticas de desarrollo para sostener su significación en el futuro.

Documento Unesco
Valor Universal Excepcional

Autenticidad

La consideración de autenticidad sobre tal "joven" edificio obliga a tomar en cuenta las circunstancias específicas de su corta historia. Un edificio es el resultado de diferentes etapas de diseño y construcción, desarrolladas por un grupo de arquitectos, ingenieros y constructores en el marco de referencia del original proyecto de Utzon. Los cambios introducidos sobre el proceso de construcción y después de la inauguración deben ser considerados como un resultado natural del desarrollo de un monumento vivo, y ello no pone en peligro los valores intrínsecos de las ideas originales de arquitectura y diseño pero ilustran que sobre el proceso de construcción y gestión uno de los hitos de la arquitectura del siglo XX.

Documento Unesco
Protección, conservación y administración

Protection legal

La legislación y los instrumentos asociados se han establecido a nivel nacional y estatal para garantizar la conservación y gestión integral de los valores patrimoniales de la Sydney Opera House.

La propiedad y el sitio están protegidos al ser incluidos en los registros de patrimonio estatutario en todos los niveles de gobierno, incluyendo disposiciones específicas para gestionar sus valores patrimoniales.

Sydney Opera House fue incluida en la National Heritage List el 12 Julio 2005 debajo del *Environment Protection and Biodiversity Conservation Act 1999* y el State Heritage Register of New South Wales del 3 Diciembre de 2003 bajo la *Heritage Act 1977*. En 1980 la propiedad fue incluida en el Register of the National Estate que fue establecido bajo la *Australian Heritage Commission Act 1975* y ahora mantenido bajo el *Australian Heritage Council Act 2003*.

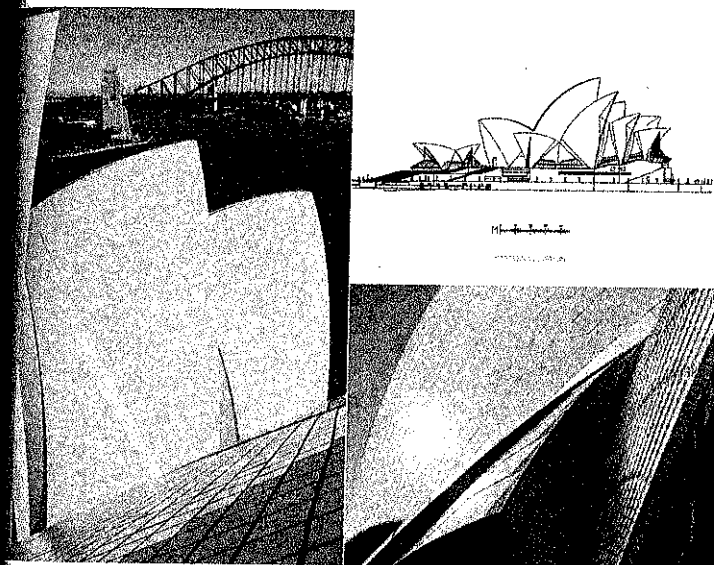
Documento Unesco Protección, conservación y administración

Conservación

Historia de la conservación

Desde la construcción de la Sydney Opera House estuvo implicado un largo proceso que no finalizaría con la inauguración de 1973; la historia de la conservación está parcialmente vinculada con el proceso de construcción y desarrollo. En 1993 James Semple Kerr fue comisionado para escribir un plan de conservación para la Sydney Opera House. En 1998 el Sydney Opera House Trust designó al arquitecto Richard Johnson para aconsejar o asesorar sobre el futuro desarrollo de la propiedad y establecer principios de planificación. Mediante Johnson, el Trust empezó negociaciones de reconciliación con Utzon para volver a comprometerlo con el edificio en calidad de asesor. En 2002 the Sydney Opera House Trust publicó los Principios de Diseño de Utzon, destinados al desarrollo futuro en el marco de la conservación de las ideas de diseño originales. La adopción del Plan de Conservación Sydney Opera House (2003) asegura la conservación y manejo adecuados de la propiedad.

49



51

Documento Unesco Protección, conservación y administración

Administración

Las estructuras y procesos de gestión incluyen los procesos de gestión tradicionales. Las estructuras de administración de la Sydney Opera House toman en cuenta un amplio rango de medidas proporcionadas por la legislación del patrimonio y políticas tanto del Australian Government como del New South Wales Government. Dado que la propiedad está registrada en los niveles nacionales y estatales, ambos niveles de gobierno comparten las responsabilidades respecto de la protección y conservación en el marco de acuerdos bilaterales. En el nivel nacional, el Australian Council fue establecido como parte del *Australian Heritage Council Act 2003*. El Council es un organismo o cuerpo independiente de expertos en patrimonio encargado de brindar consejo o asesoramiento al Minister for the Environment and Heritage en una variedad de asuntos relativos al patrimonio incluyendo problemas de políticas de protección, conservación y monitoreo o vigilancia de lugares de la Lista del Patrimonio Nacional.

50

Documento Unesco Recomendación

ICOMOS recomienda que el monumento Sydney Opera House sea considerado portador de un valor universal excepcional basado en la importancia de ser una de las obras más destacadas del siglo XX, que abarcan logros notables tanto en la forma y expresión edificada, como en la solución de problemas estructurales y técnicos.

La zona núcleo propuesta incluye todos los componentes necesarios para expresar los valores de la propiedad.

La zona de amortiguamiento propuesta asegura la preservación o conservación en el escenario dramático en que está situada la propiedad en el Sydney Harbour.

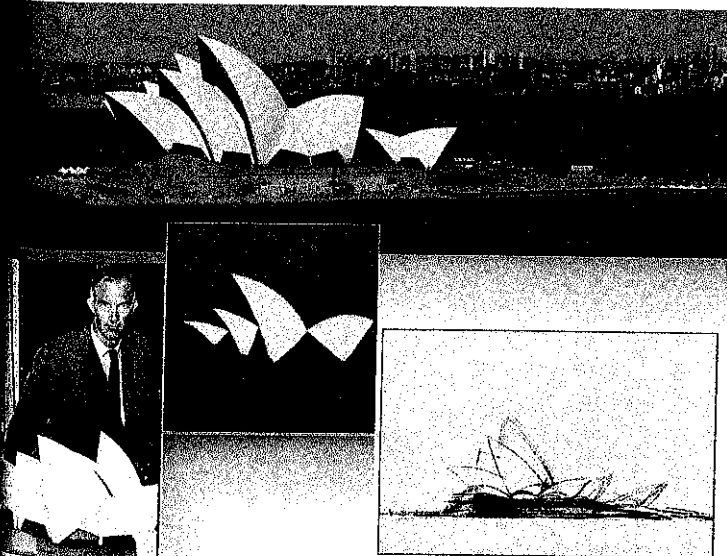
La propiedad satisface exitosamente las condiciones de integridad y autenticidad. La protección, conservación, administración y vigilancia de las estructuras y procesos demuestran ser adecuados para asegurar la conservación y mejora de los valores de integridad y autenticidad de la obra Sydney Opera House.

52

5. Bibliografía

- Curtis, W.J., *Modern architecture since 1900*, 4 ed, Phaidon Press, Oxford, 1994.
- Drew, P., *Sydney Opera House: Jørn Utzon, Architecture in detail series*, Phaidon Press, London, 1995.
- Faber, T., Sharp, D and Norberg-Schulz, C., "Jørn Utzon: Special issue", *World Architecture*, n° 15, 1991.
- Frampton, K., *Modern architecture: a critical history*, 3 ed, (1st edition 1980), Thames and Hudson, London, 1992.
- , "Jørn Utzon: transcultural form and the tectonic metaphor" in *Studies in tectonic culture: the poetics of construction in nineteenth and twentieth century*, Architecture Press, Cambridge, Mass, 1996.
- Giedion, S., "Jørn Utzon and the third generation: three works by Jørn Utzon—a new chapter of Space time and architecture", *Zodiac*, n° 14, 36–47, 1966.
- Hals, P and Macdonald, S., "The Sydney Opera House, an evolving icon" *Journal of Architectural Conservation*, vol. 11, n°2, July 2005, 7–21.
- Norberg-Schulz, C. 1996, "The Sydney Opera House: international comparison, an evaluation of its position in the history of modern architecture", Department of the Environment, Sports and Territories and New South Wales Department of Urban Affairs and Planning Sydney Opera House in its harbour setting, unpublished World Heritage nomination by the Government of Australia, DEST & DUA P, Sydney, 161–173.
- Jencks, C., *Modern movements in architecture*, Penguin, London, 1973.
- , C., *The iconic building, the power of enigma*, Frances Lincoln, London, 2006.
- Joedicke, J., *Architecture*
- , J., *Architecture since 1945: sources and directions*, translated by JC Palmes, Pali Mall Press, London, 1969.
- www.whc.unesco.org

53



55



SACD/CYAD/358/19

10 de julio de 2019

Mtro. Miguel Toshihiko Hirata Kitahara
Encargado del Departamento de Evaluación
del Diseño en el Tiempo
Presente

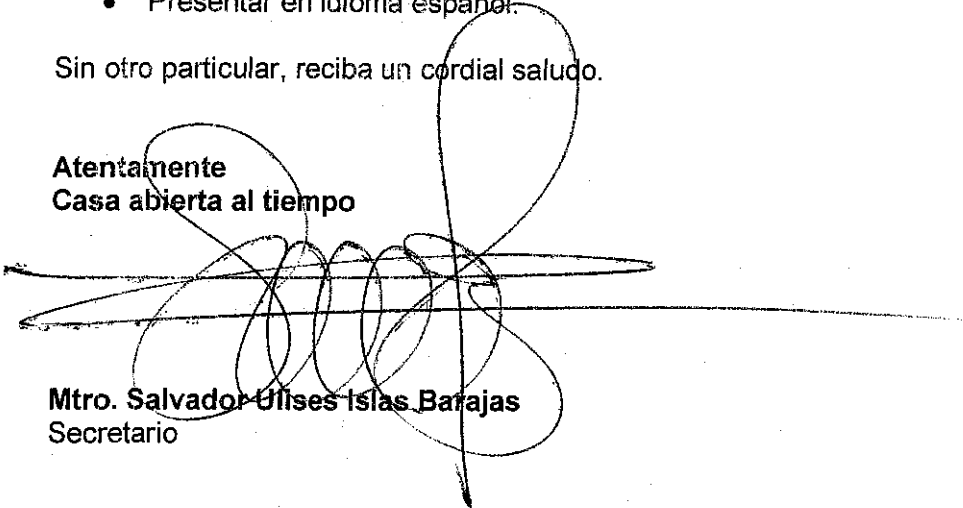
Asunto: Observaciones al informe de sabático
del Dr. Francisco José Santos
Zertuche.

Por este medio, le informo que la *Comisión encargada del análisis de las solicitudes de periodos o años sabáticos y de la evaluación de los informes de actividades desarrolladas en éstos, así como del análisis y evaluación de las solicitudes e informes de la beca para estudios de posgrado* ha realizado observaciones al informe de sabático del Dr. Francisco José Santos Zertuche:

- No cumple con el numeral 3, incisos a), b), c), d) y e) de los Lineamientos emitidos para tal efecto.
- El trabajo presentado no corresponde a la investigación.
- Presentar en idioma español.

Sin otro particular, reciba un cordial saludo.

Atentamente
Casa abierta al tiempo



Mtro. Salvador Ulises Islas Barajas
Secretario

5/7/19
M

05 de julio de 2019
Ev.Ht.0.19

Dr. Marco Vinicio Ferruzca Navarro
Presidente del H. Consejo Divisional de CyAD
Presente.

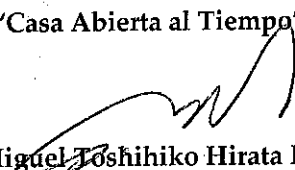
Asunto: Informe de actividades en periodo sabático.

Por medio de la presente solicito tenga a bien contemplar en la próxima sesión del Consejo Divisional un punto para la presentación del reporte de actividades realizadas durante el periodo sabático del **Dr. Francisco José Santos Zertuche** integrante del Área De Estudios Urbanos, del Departamento a mi cargo. Cabe destacar que dicho periodo sabático fue del 08 de enero de 2018 al 07 de mayo de 2019.

Sin otro particular por el momento, aprovecho la ocasión para hacerle llegar un cordial saludo.

Atentamente.

"Casa Abierta al Tiempo"


Mtro. Miguel Toshihiko Hirata Kitahara
Encargado del Departamento de Evaluación
del Diseño en el Tiempo.



Ciudad de México, 5 de julio de 2019

Mtr. Miguel Toshihiko Hirata Kitahara
Encargado del Departamento de
Evaluación del Diseño
Presente

Por este medio y a petición del Dr. Francisco Santos Zertuche, te hago llegar su

Informe del Periodo Sabático autorizado a partir del **08 de enero de 2018 al 07 de mayo de 2019**, oficio: **SACD/CYAD/749/17**. El Dr. Santos elaboró la investigación titulada "Homenaje a Jon Utzon, Sidney Opera House, Patrimonio Mundial de la Humanidad 1959-2019", la cual se entrega como anexo.

Sin más por el momento, recibe un cordial saludo.

Atentamente
"Casa Abierta al Tiempo"



Mtra. Consuelo Córdoba Flores
Jefa del Área de Estudios Urbanos

Copia al interesado

Ciudad de México, 5 de julio de 2019

Mtra. Consuelo Córdoba Flores
Jefa del Área de Estudios Urbanos
Presente

Asunto:
Presentación Informe del Periodo Sabático

Estimada Mtra. Consuelo:

Por este medio, me permito presentar el **Informe del Periodo Sabático** autorizado a partir del **08 de enero de 2018 al 07 de mayo de 2019**, oficio: **SACD/CYAD/749/17**, durante el cual realicé el proyecto "Homenaje a Jon Utzon, Sidney Opera House, Patrimonio Mundial de la Humanidad 1959-2019".

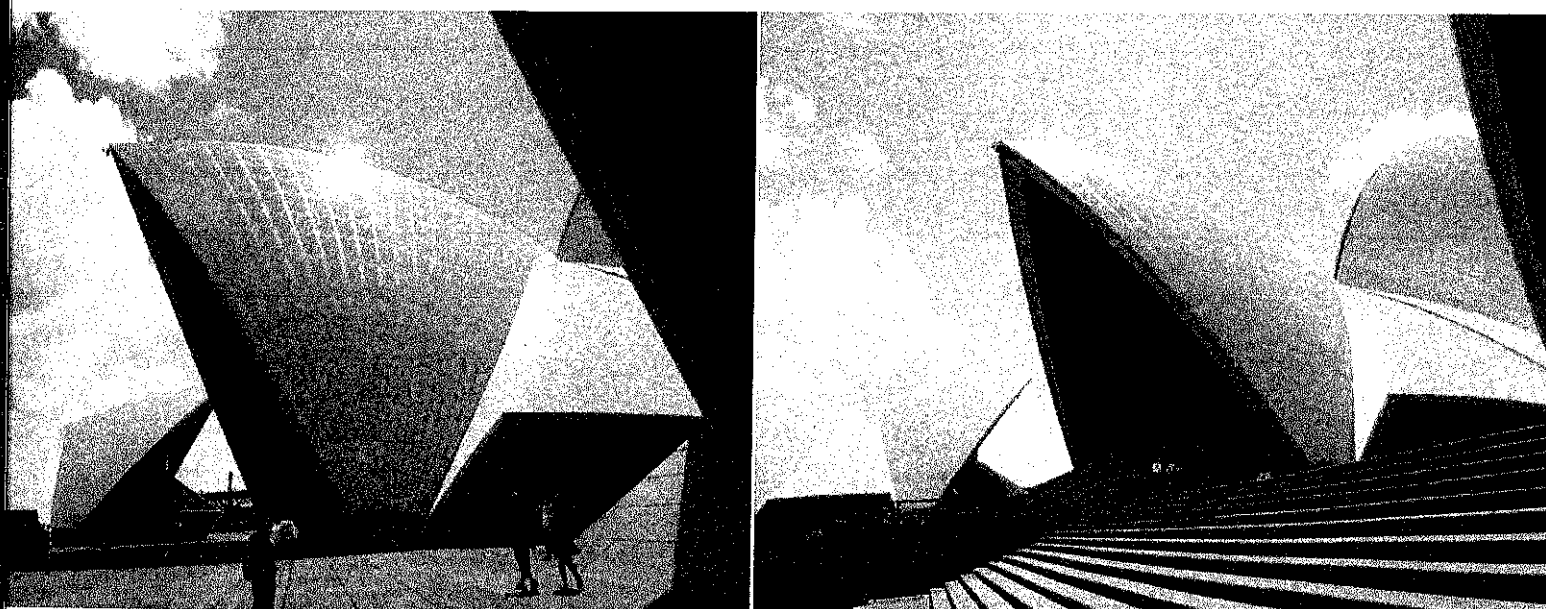
Agradezco la atención que sirva dar a la presente.

Atentamente
"Casa Abierta al Tiempo"



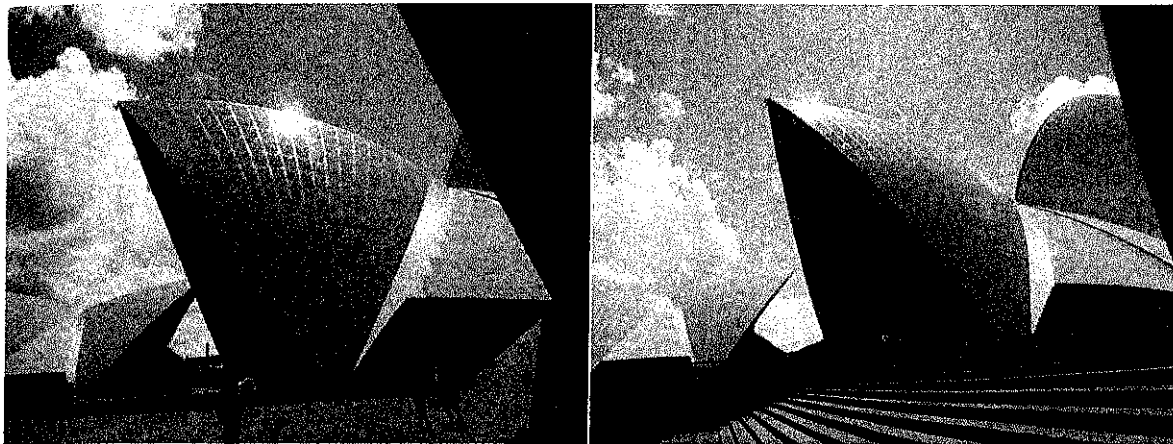
Dr. Francisco José Santos Zertuche
Profesor-Investigador
Departamento de Evaluación del Diseño
Área de Estudios Urbanos
No. Econ. 682

Homenaje a Jørn Utzon
SYDNEY OPERA HOUSE
PATRIMONIO MUNDIAL DE LA HUMANIDAD
1959-2019



Dr. Francisco Santos Zertuche
Informe del periodo sabático
JULIO DE 2019

Homenaje a Jørn Utzon
SYDNEY OPERA HOUSE
PATRIMONIO MUNDIAL DE LA HUMANIDAD
1959-2019



Dr. Francisco Santos Zertuche
Informe del periodo sabático
JULIO DE 2019

1

ÍNDICE

Presentación

PRIMERA PARTE

ESTUDIO HISTÓRICO-ARQUITECTÓNICO

(basado en documentos, mapas, planos y fotografías).

El Concurso y el Diseño Conceptual

El Desarrollo de los Planos del Anteproyecto y la obra estudio fotográfico

Etapas del diseño constructivo y estructural, estudio fotográfico.

Anexo I

Selección de documentos y bibliografía

Conclusiones

SEGUNDA PARTE

ESTUDIO DEL PROCESO INTERNACIONAL DE NOMINACIÓN.

SYDNEY OPERA HOUSE PATRIMONIO MUNDIAL DE LA HUMANIDAD

(basado en la recopilación de documentos de las instituciones participantes).

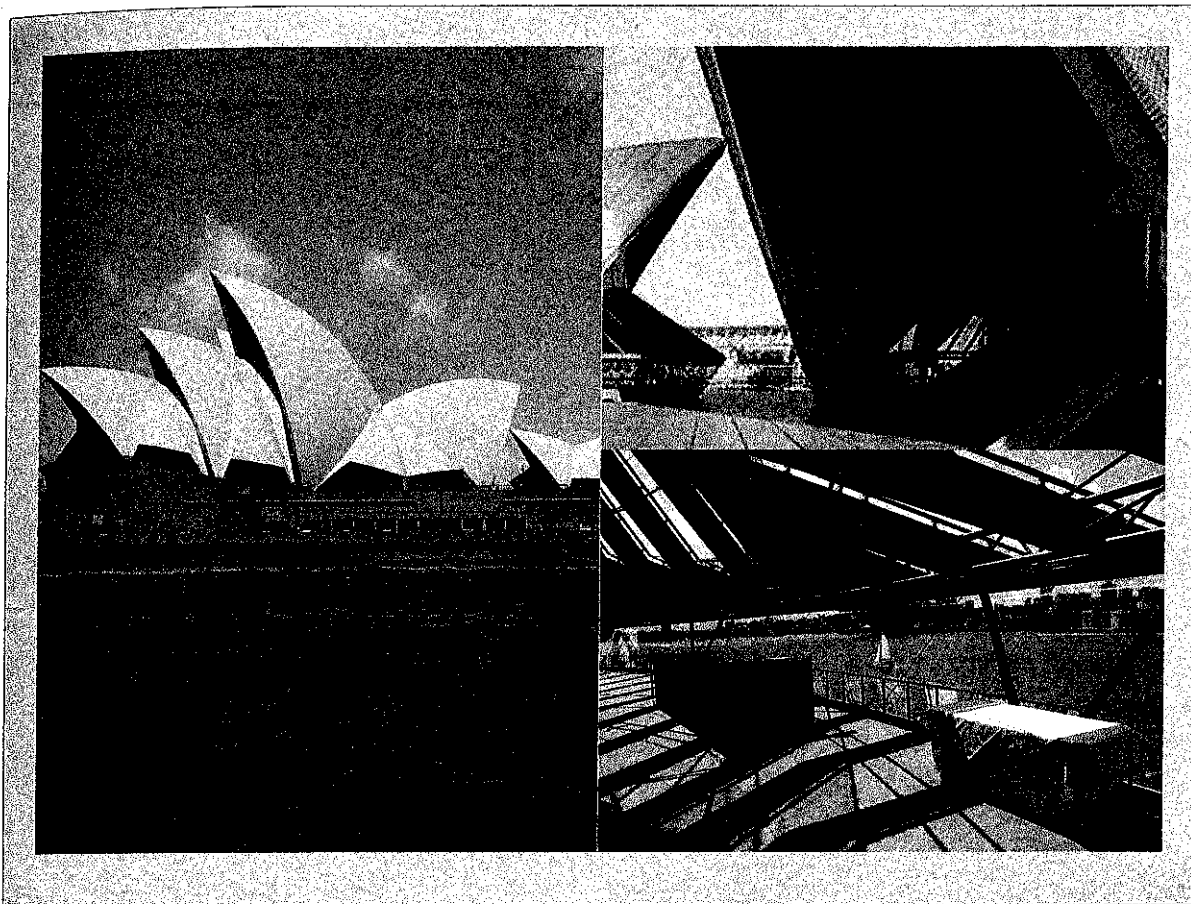
Documento de Unesco

Argumentos y criterios de la acreditación

Anexo II. Selección de documentos y bibliografía

Conclusiones

2



5

PRIMERA PARTE

ESTUDIO HISTÓRICO ARQUITECTÓNICO

(basado en documentos, planos y fotografías)

El Concurso y el Diseño Conceptual

El Desarrollo de Planos del Anteproyecto, la obra estudio fotográfico

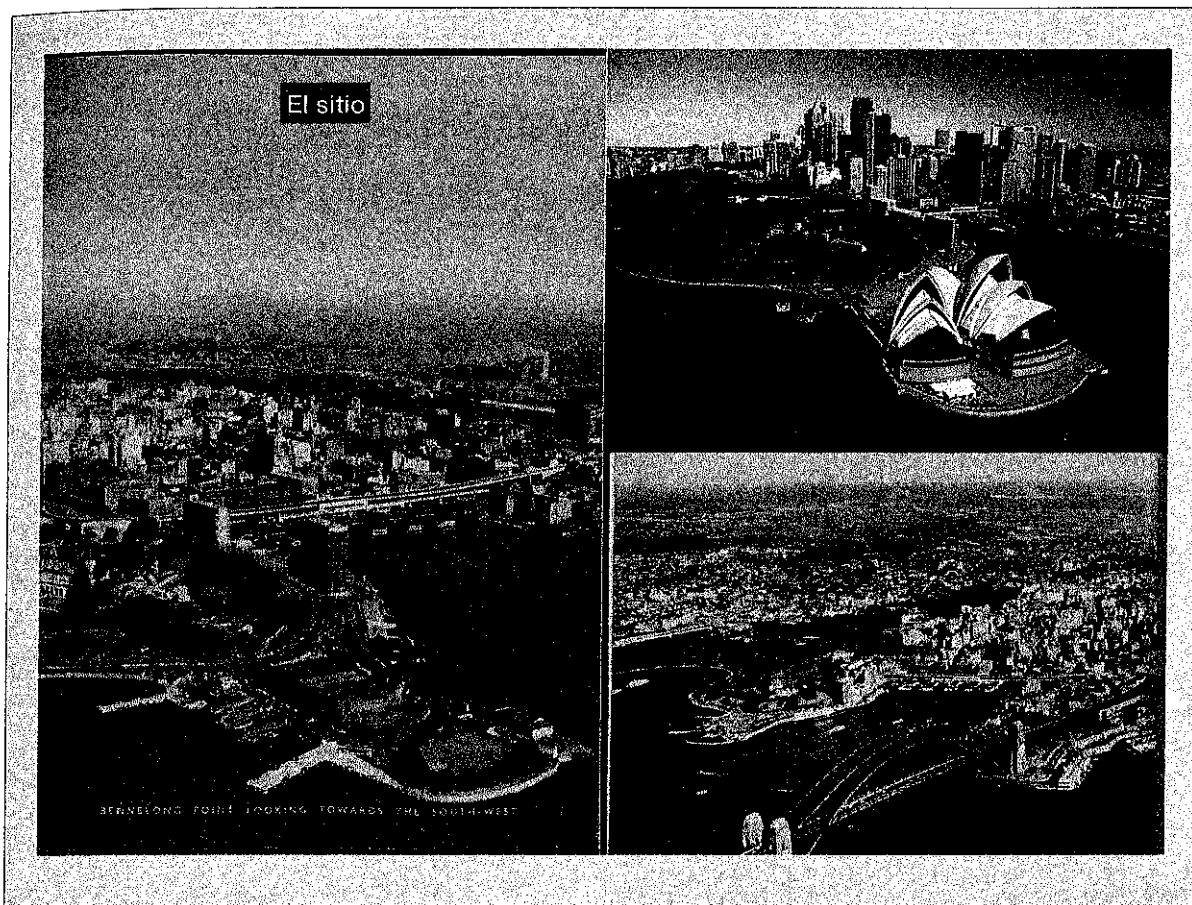
Etapas del diseño constructivo y estructural, estudio fotográfico

Anexo I

Selección de documentos y bibliografía

Conclusiones

6



7

El Concurso

Conditions of Competition

This Competition has been approved by the Royal Australian Institute of Architects and the International Union of Architects.

Throughout these Conditions:

"Promoters" shall mean the Government of the State of New South Wales.

The "Secretary" shall mean the Secretary and Executive Officer of the Opera House Committee, c/- Department of Local Government, Bridge & Phillip Streets, Sydney, Australia.

1. Invitation

The Promoters invite all Architects, who are members of their respective Architectural Institutes in any country in the world, to submit designs in competition for—

A proposed National Opera House, to be erected on Bennelong Point, Sydney, Australia, in accordance with these Conditions and the Annexed Appendices, which form part of these Conditions.

The winner of the Competition shall become registered in New South Wales as an Architect under the Architects Act, 1921-1946, before he can be appointed.

The qualifications for registration in New South Wales are set forth in Appendix 1.

2. Register

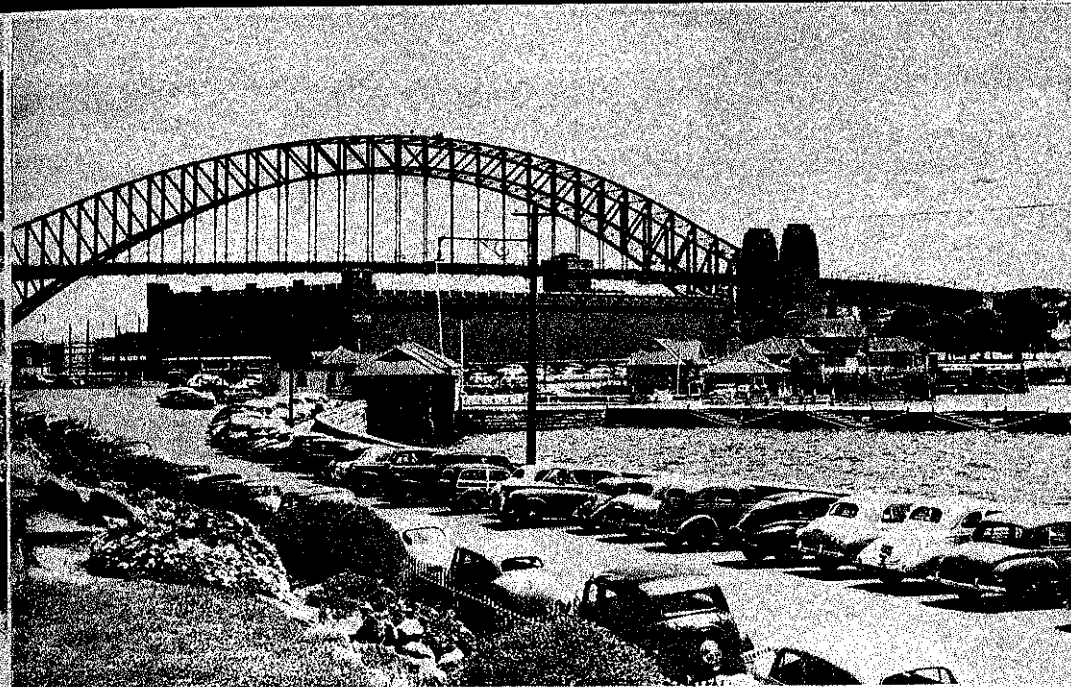
Every intending competitor shall register his name and address in writing with the Secretary, not later than 15th March, 1956.

The register shall be confidential and the names of the competitors shall not be disclosed until the Assessors have made an award.

Competitors may obtain one set of these Conditions by depositing the sum of £10.00. (Australian) or its equivalent, with the Secretary. This sum will be refunded to those Architects who submit a bona fide design. Remittances to be made payable to the Government of New South Wales.

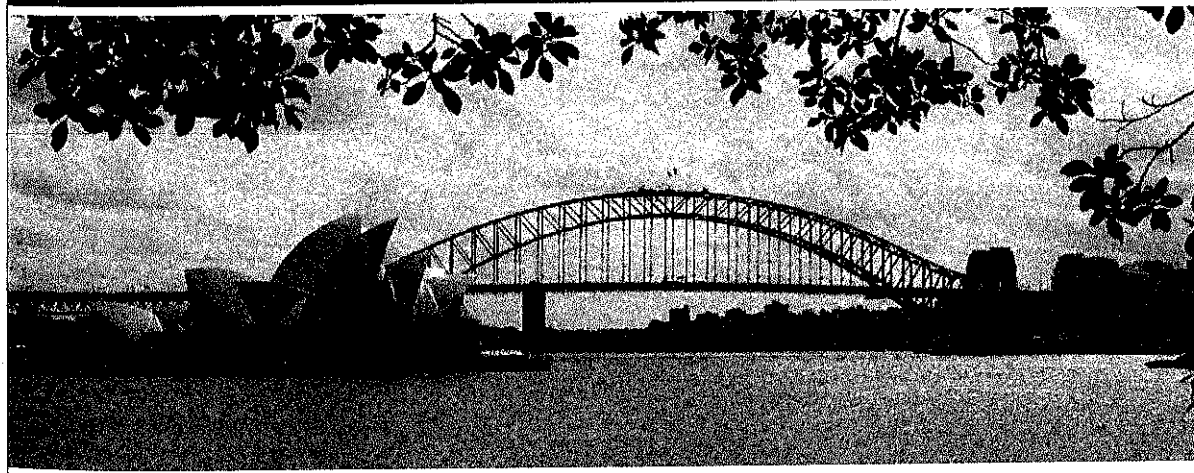
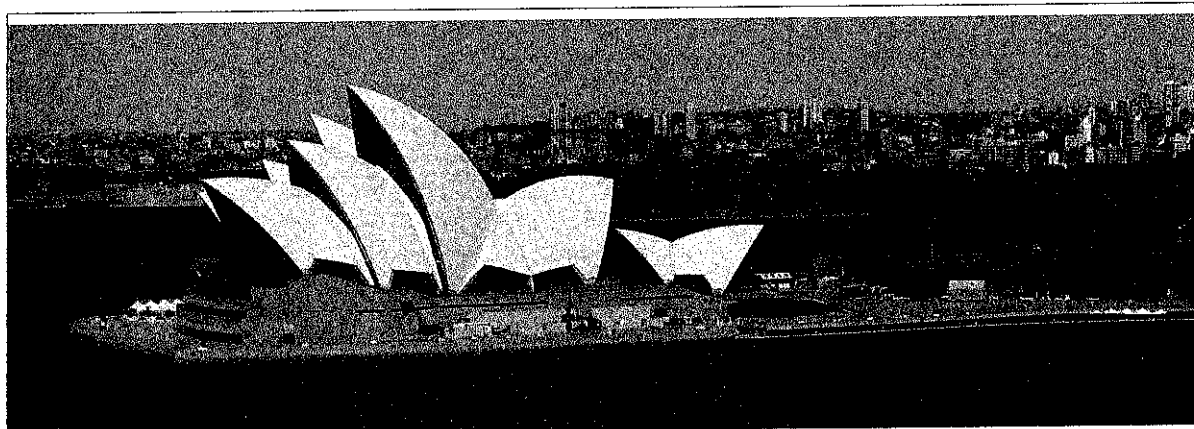
Designs will not be accepted from any person other than those whose names appear on the register.

Page 2

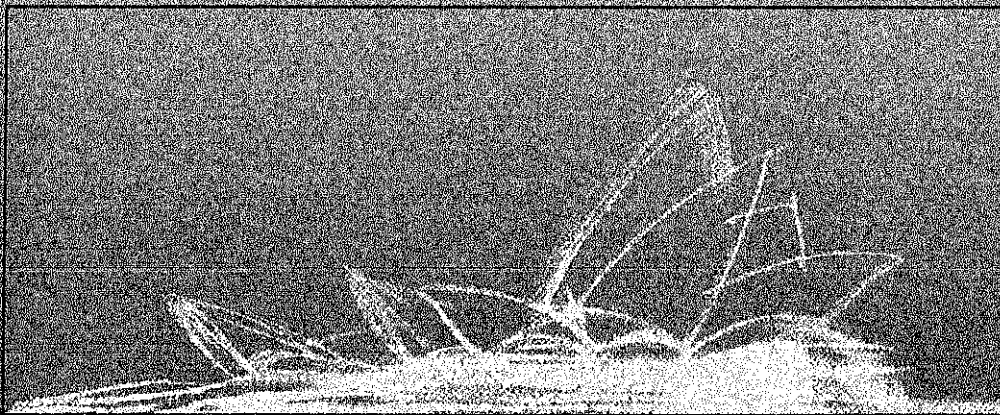
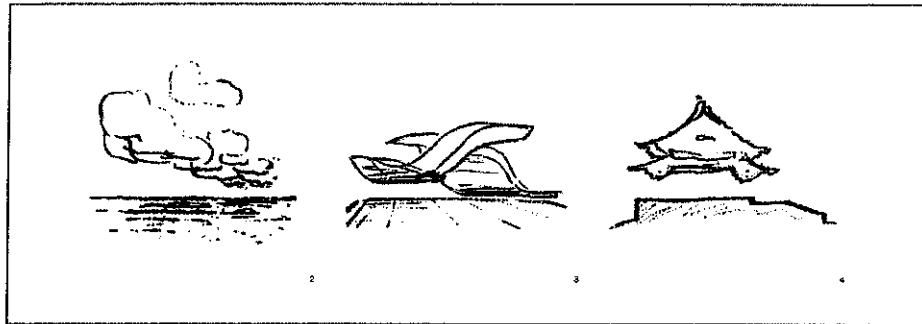


a. VIEW FROM THE EAST

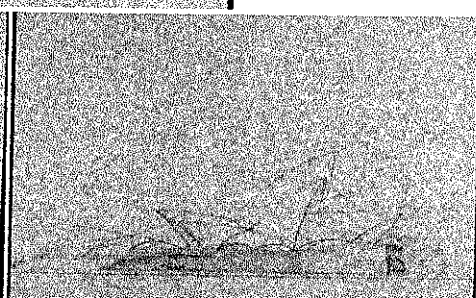
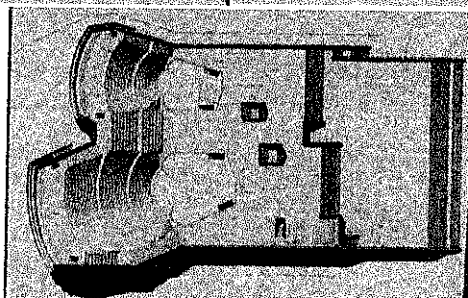
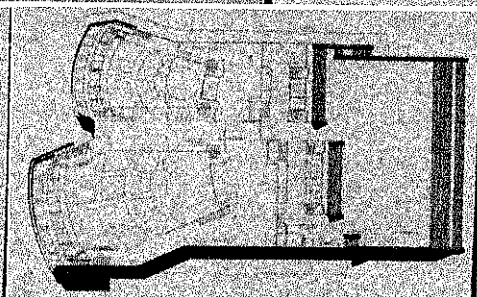
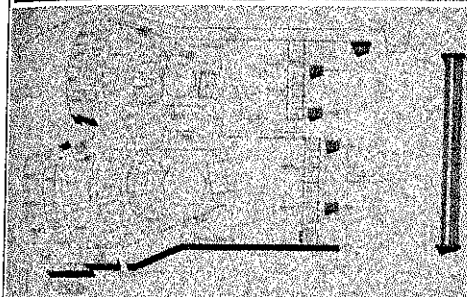
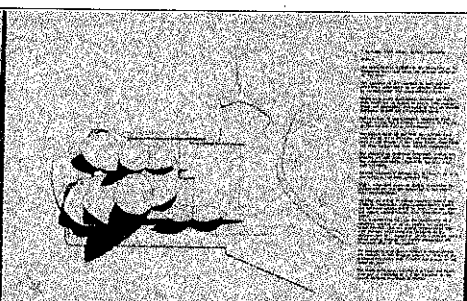
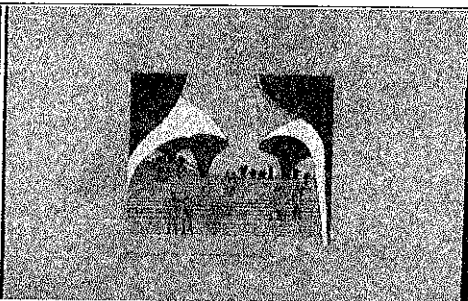
Page 11



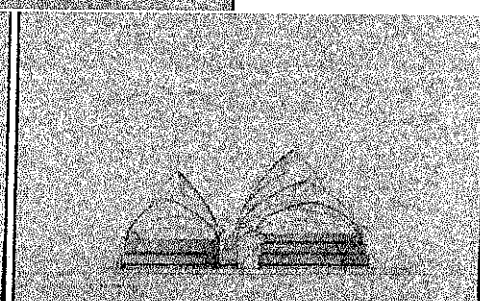
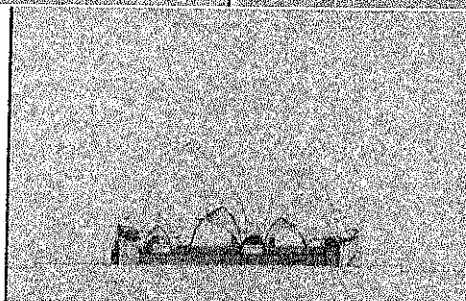
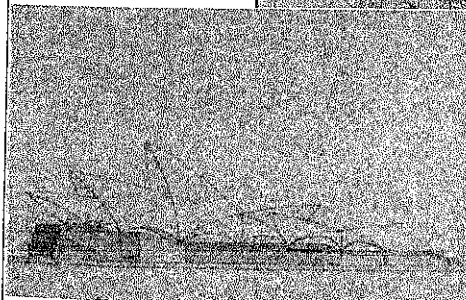
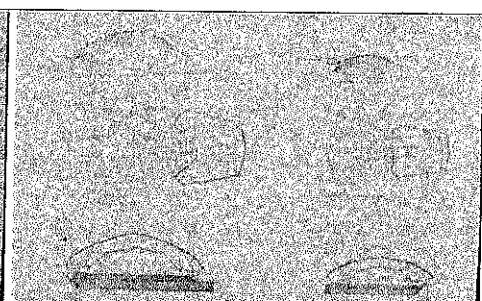
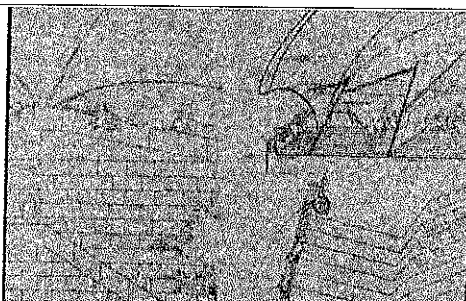
El diseño conceptual



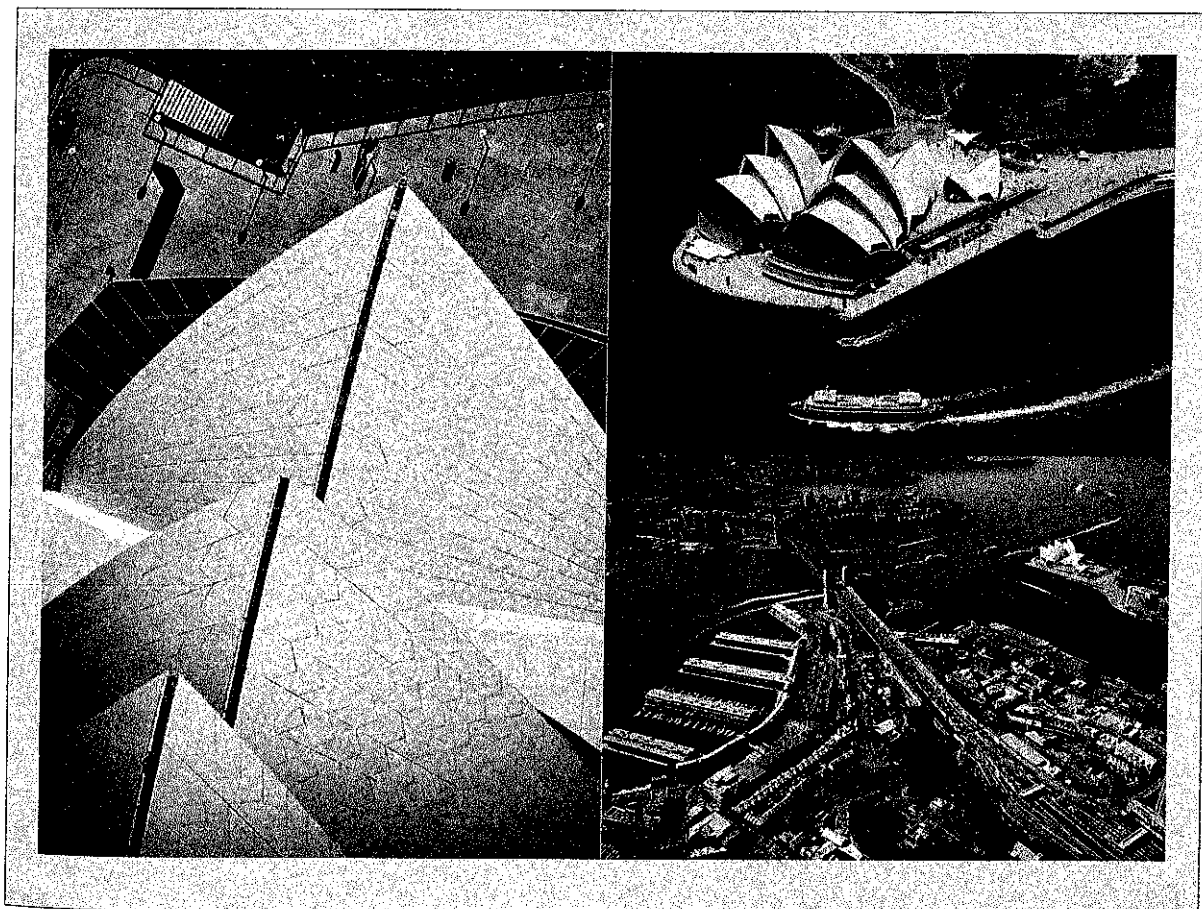
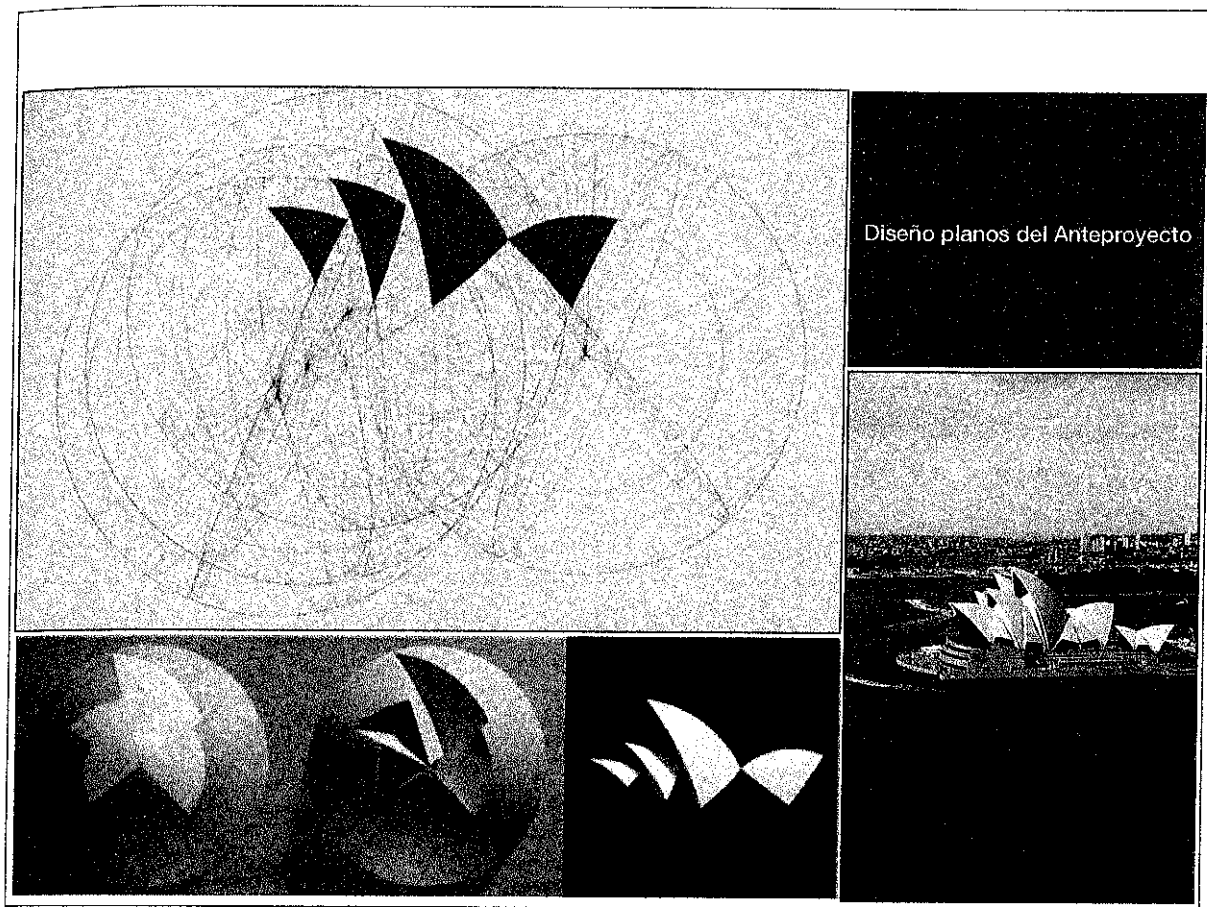
Diseño Conceptual

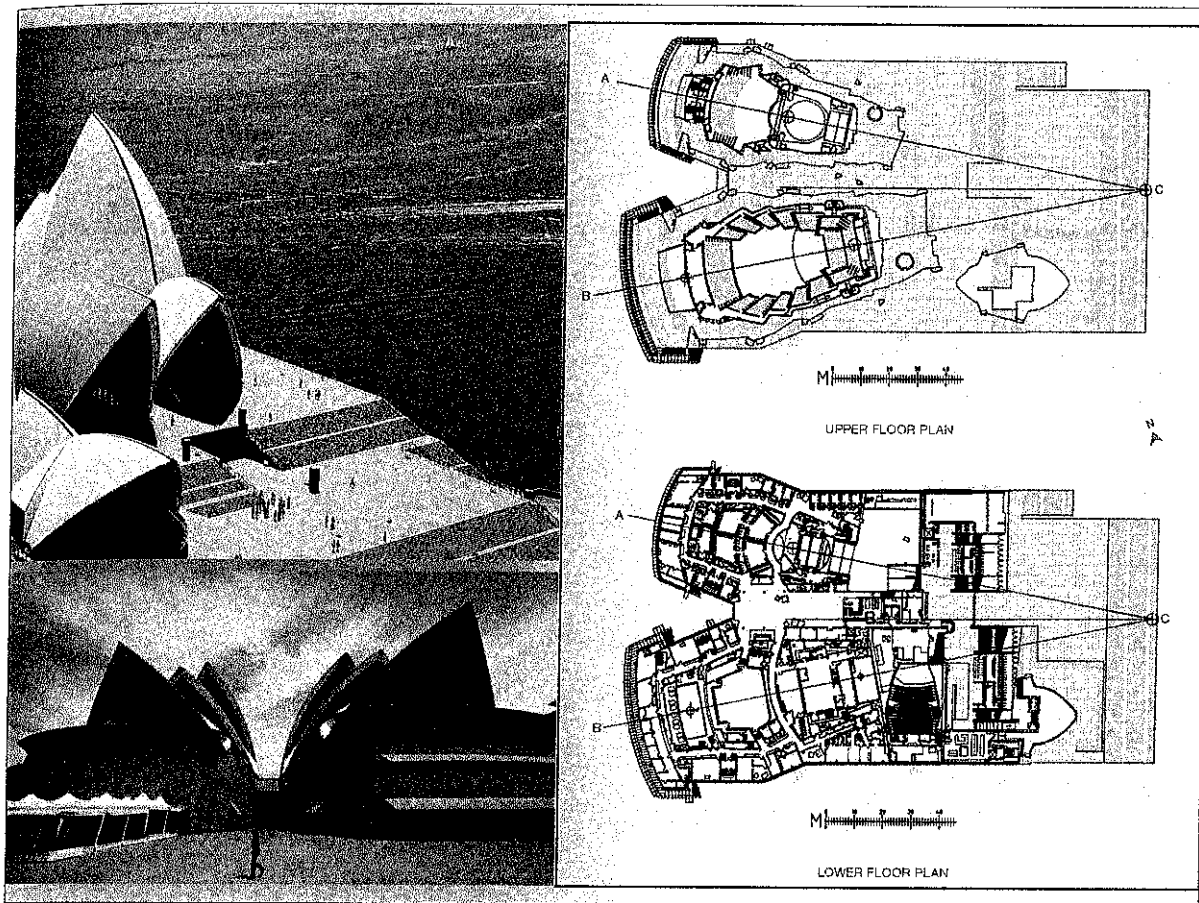


13

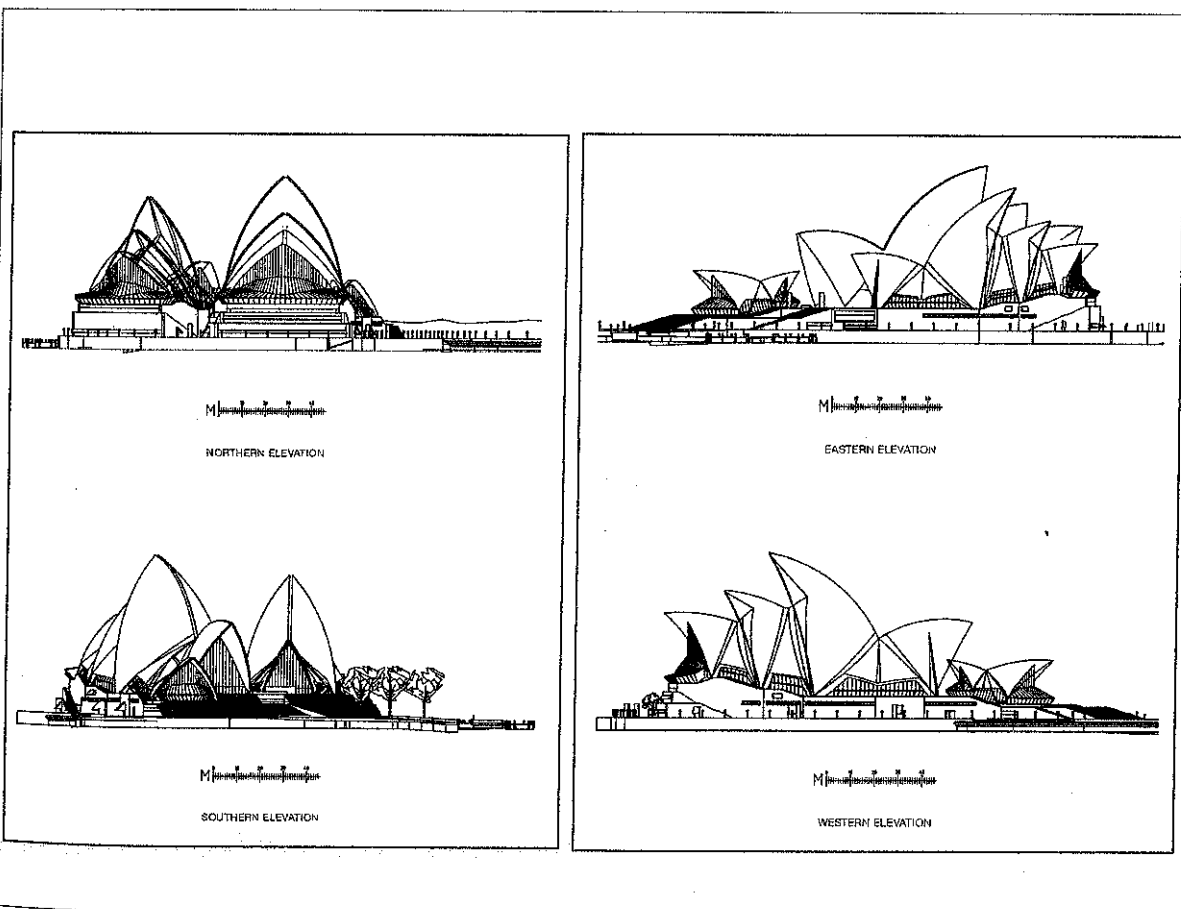


14

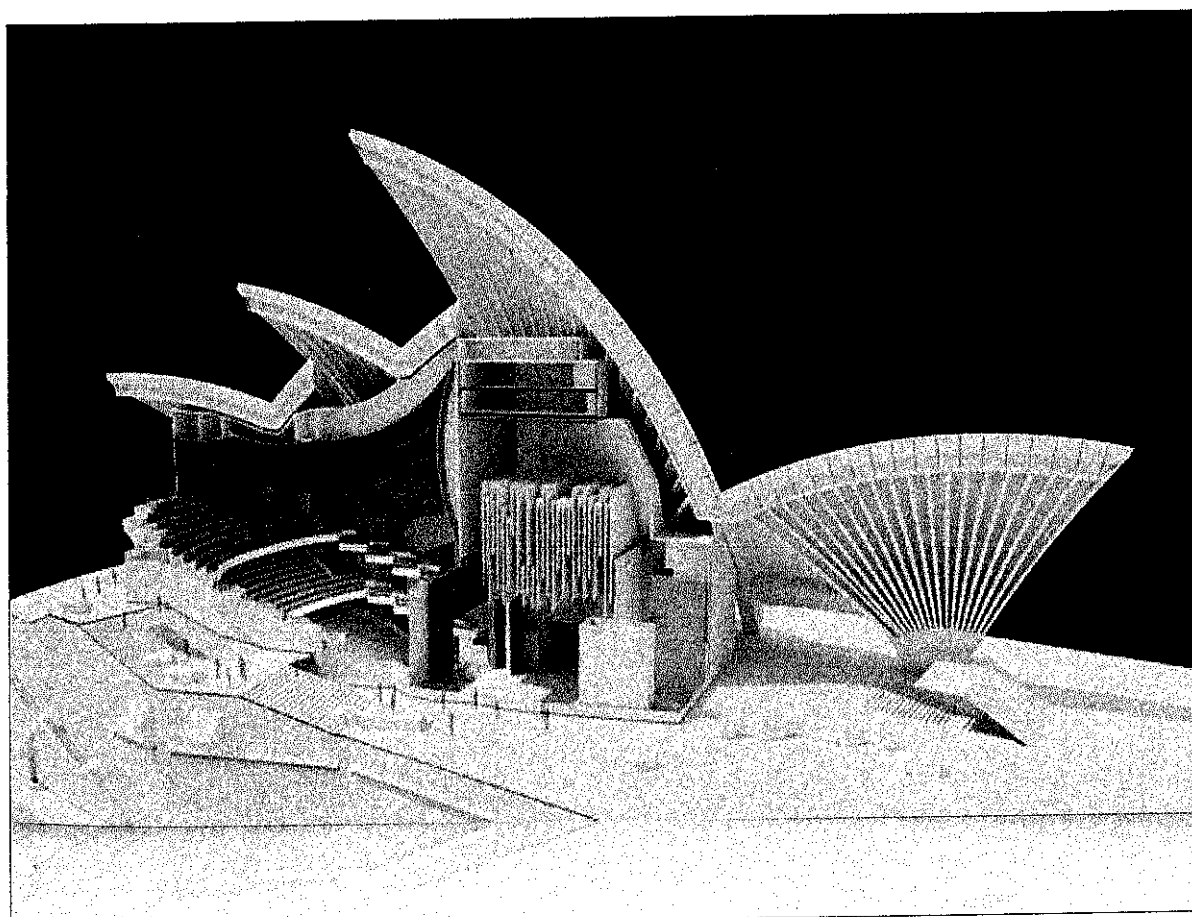
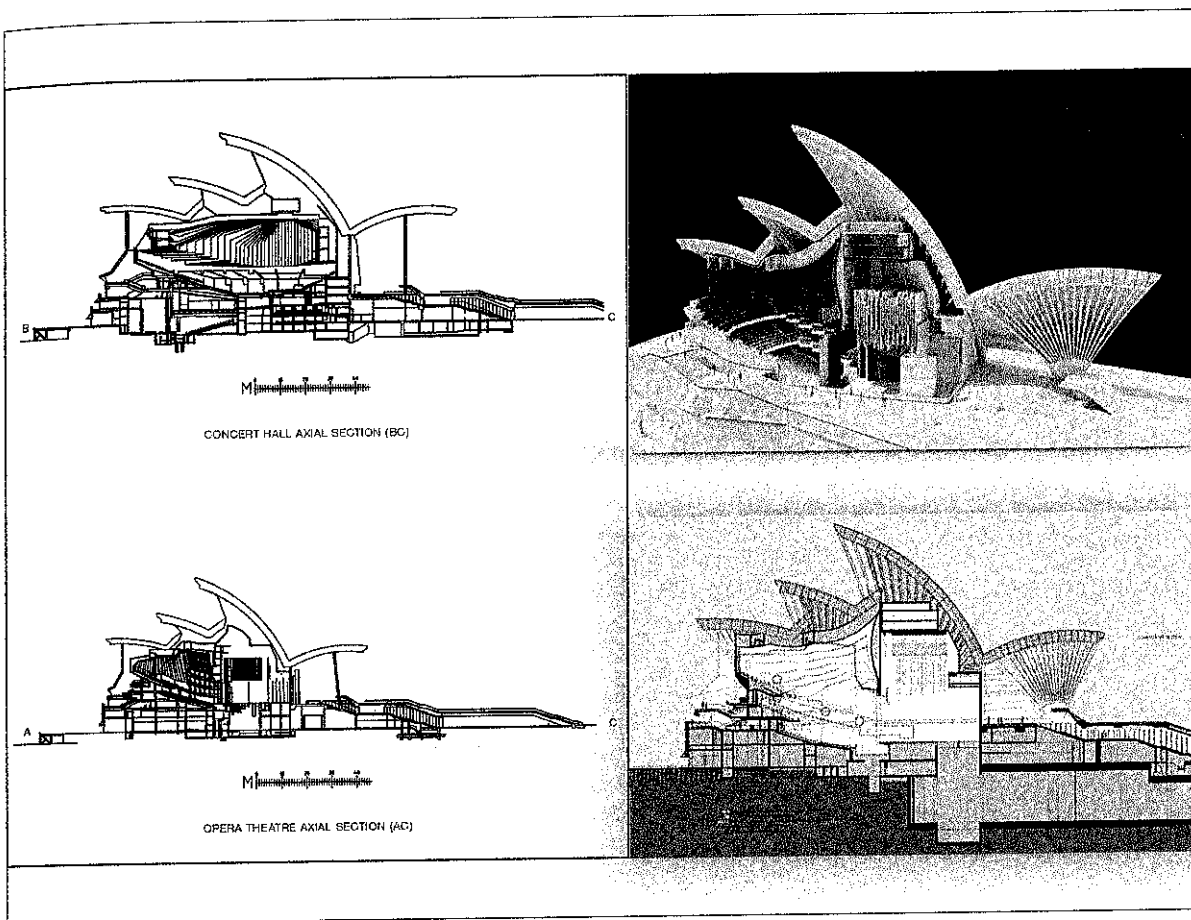


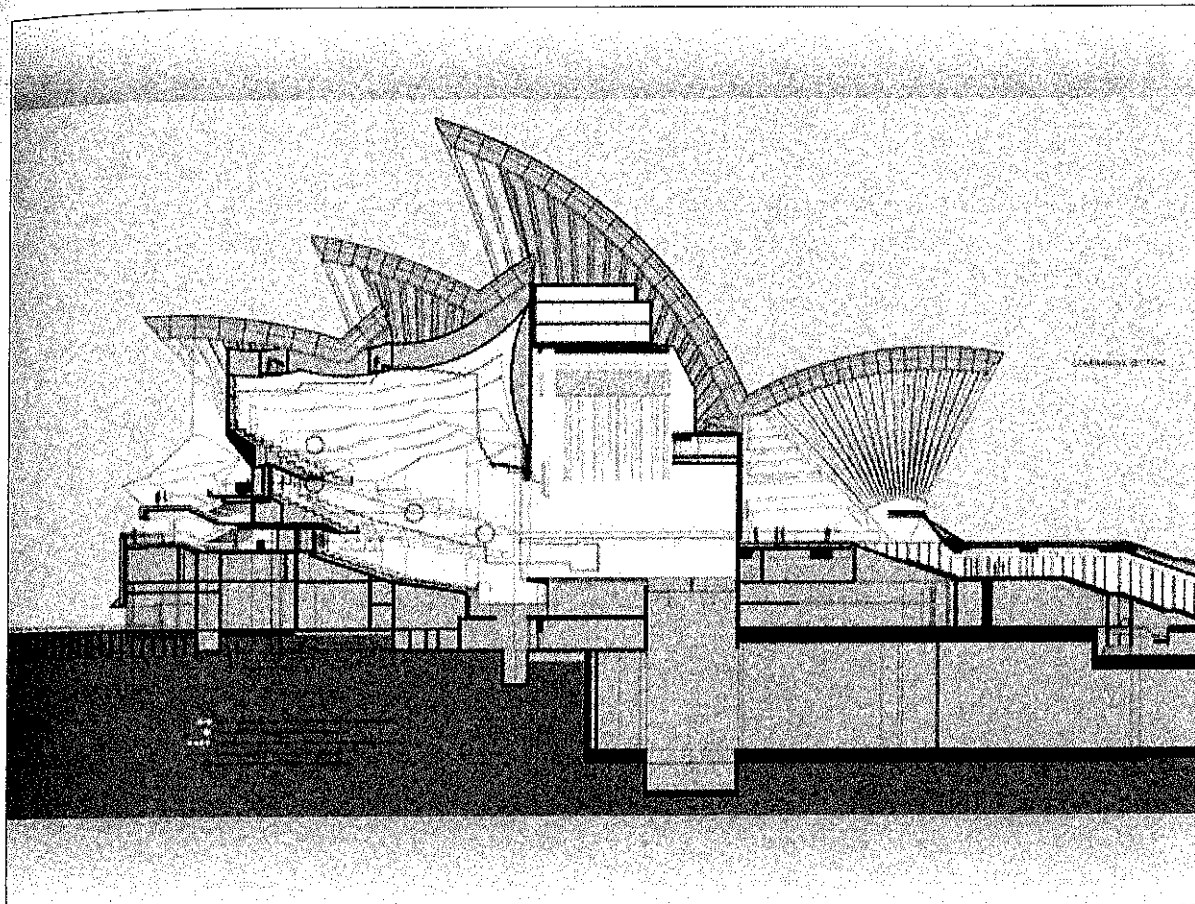


17

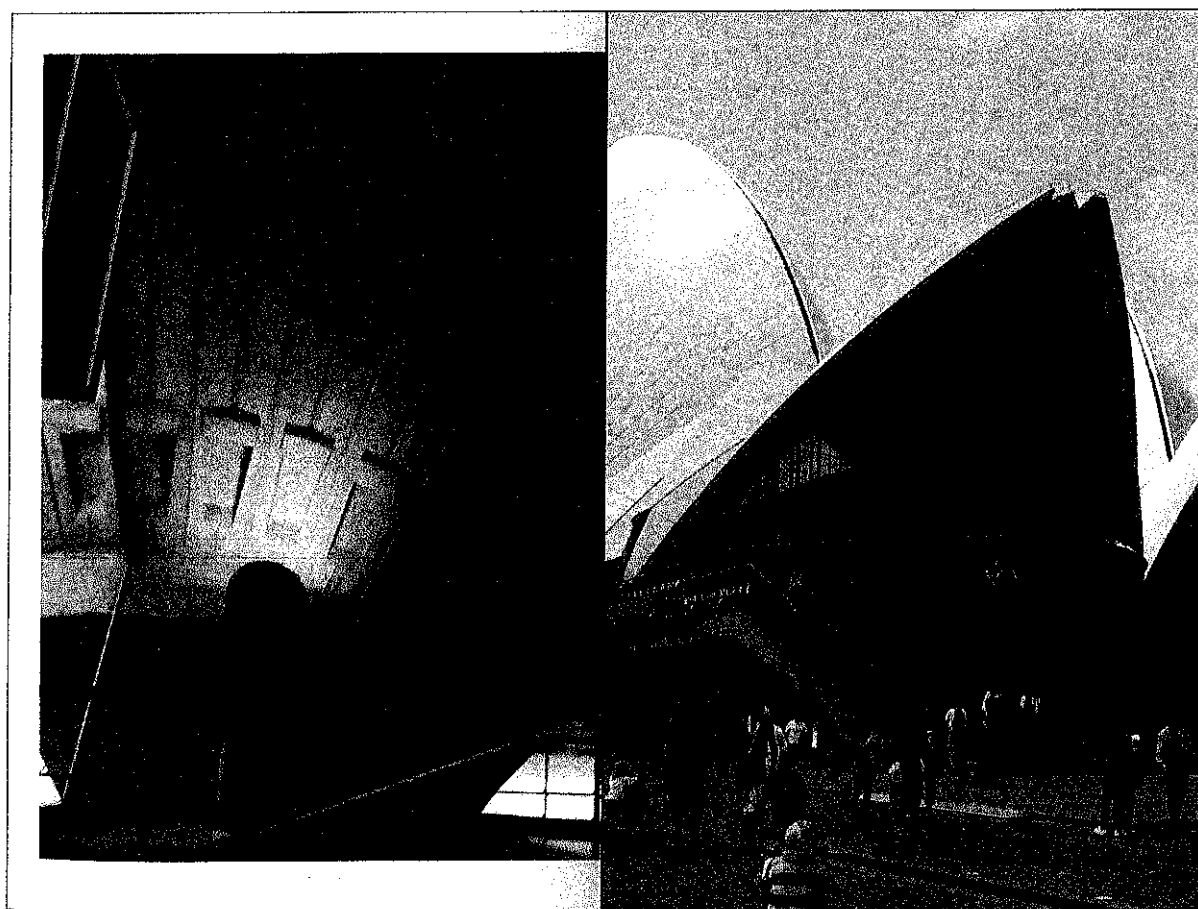


18





21



22

ETAPAS DEL DISEÑO CONSTRUCTIVO Y ESTRUCTURAL 1957-1963

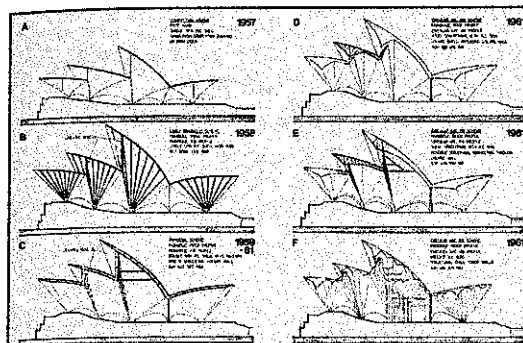


Fig. 17
History of development of roof design - 1957-1961

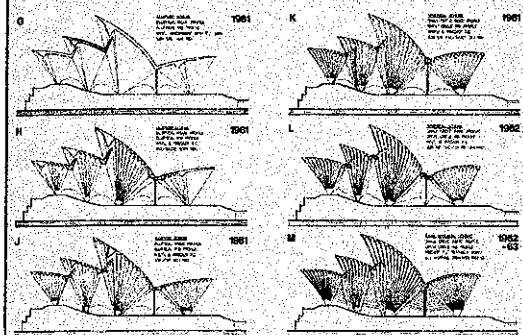
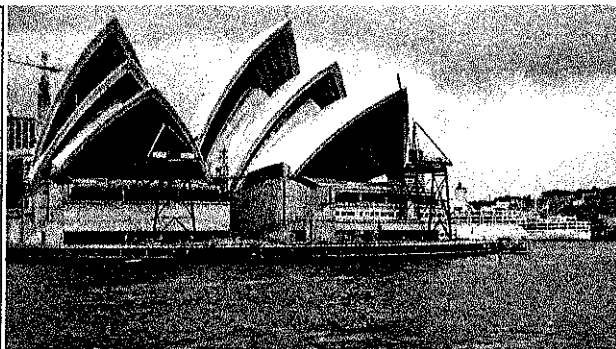
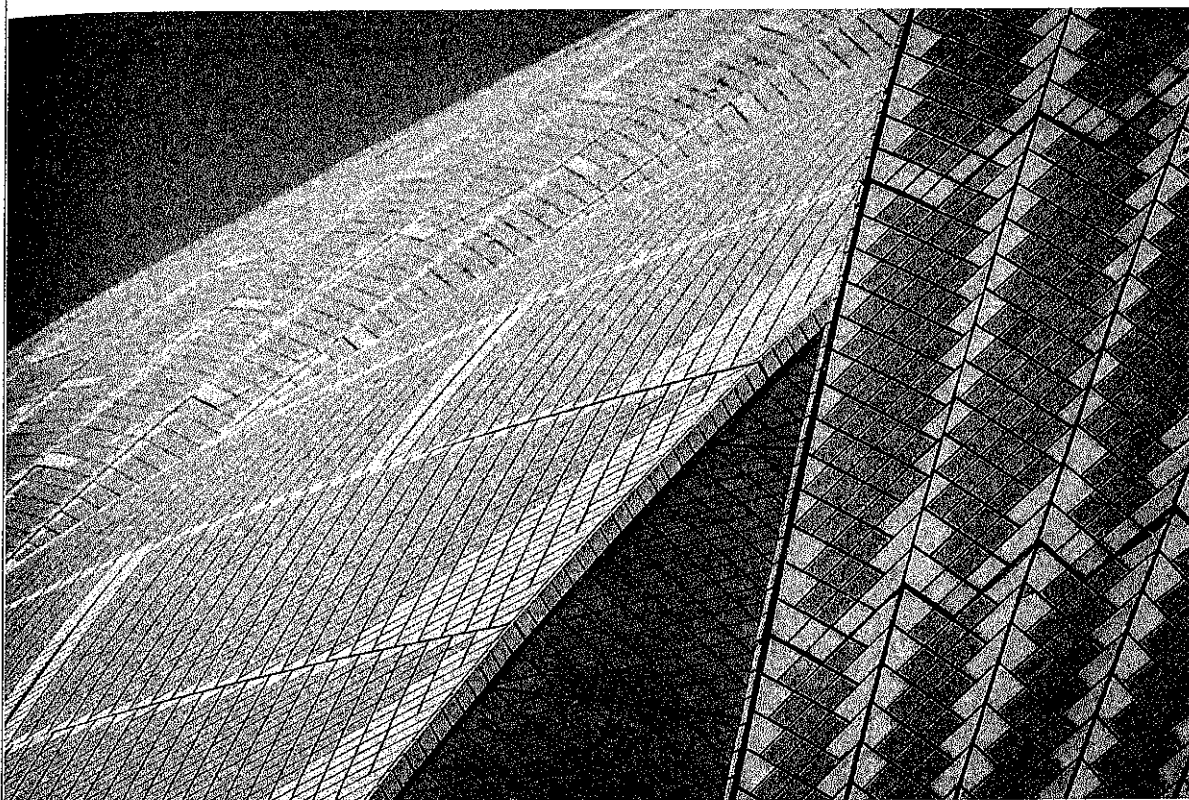


Fig. 18
History of development of roof design - 1961-1963





25

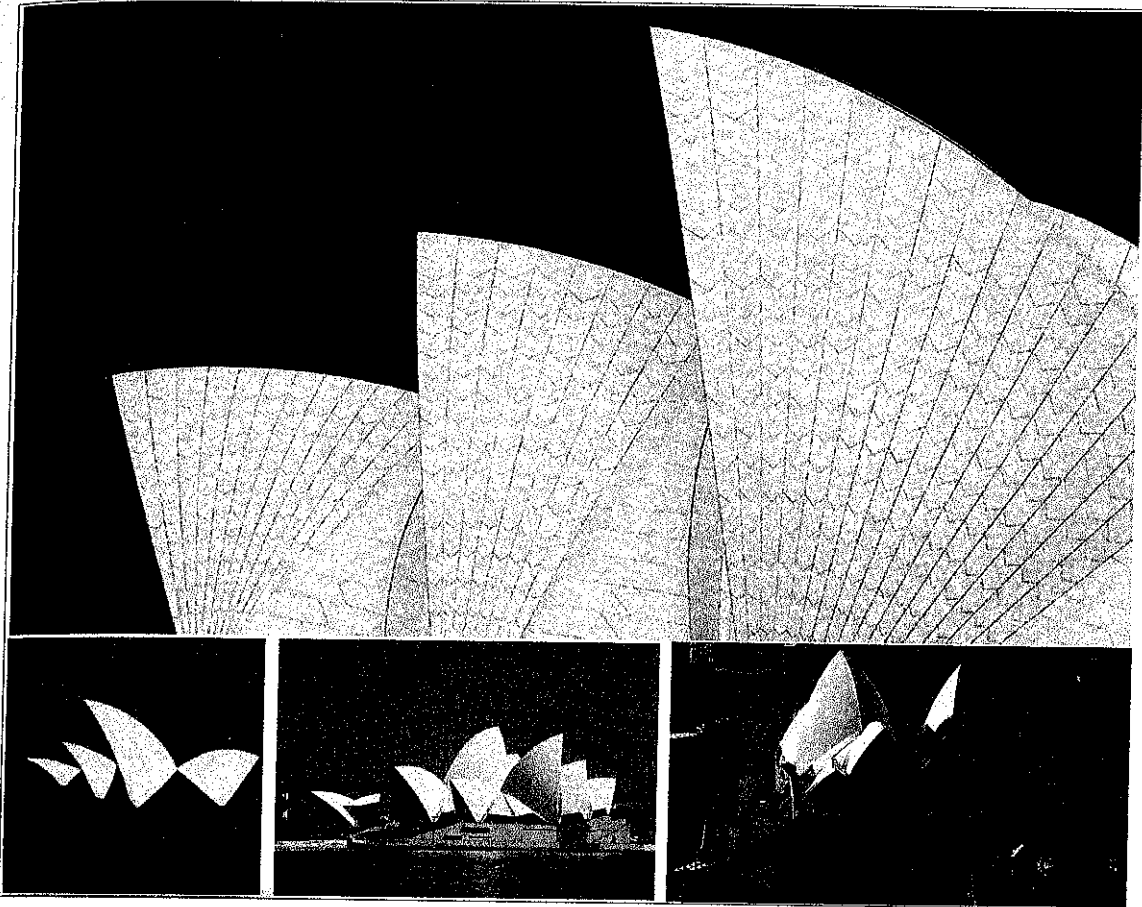
Ceramic Tile Skin

The Opera house was completed by other designers under the direction of Peter Hall. However, Utzon was able to accomplish the basic structure, leaving just the interiors to be finished by others.

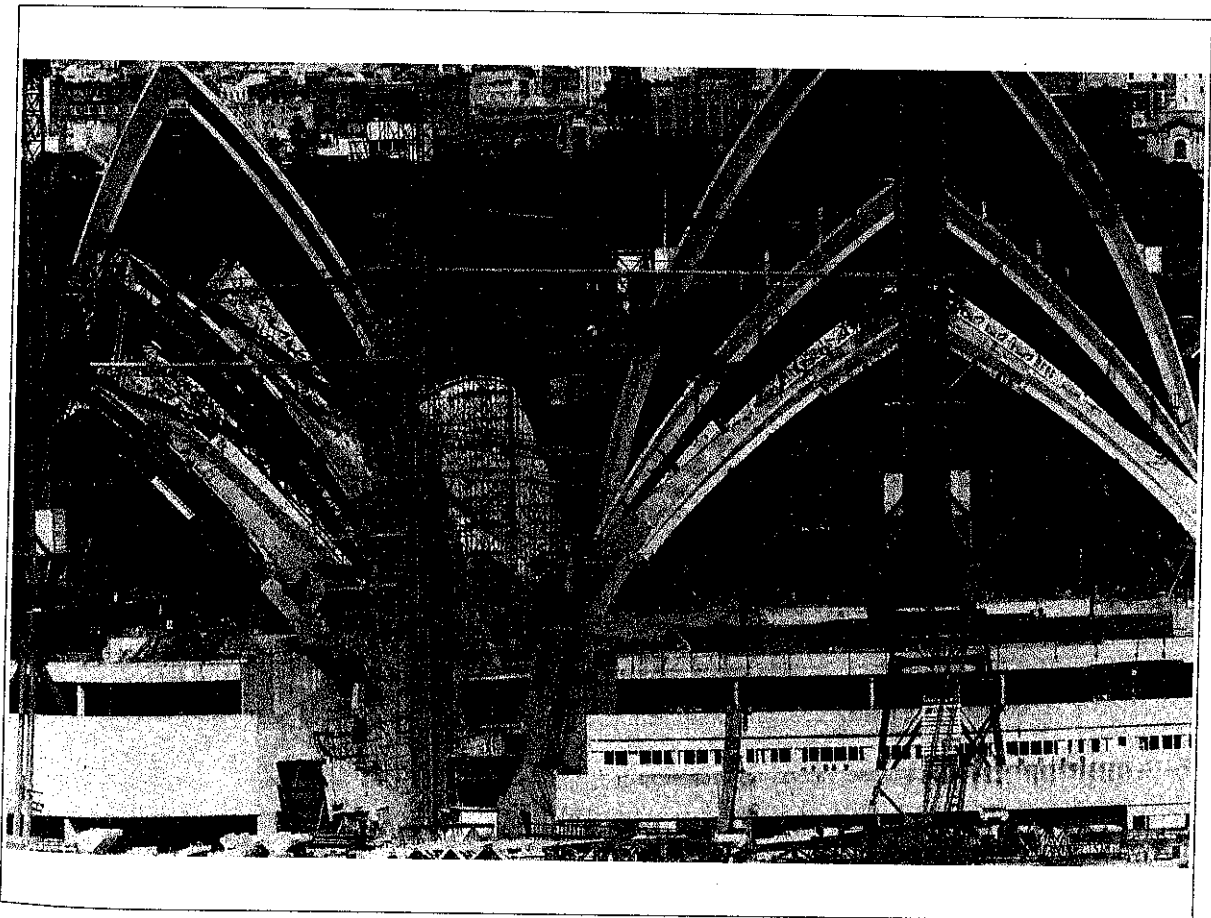
Because Utzon left the project in 1966 as the shells were being built, it's often unclear who made certain decisions along the way. Some have claimed that the "glass walls" were "constructed according to the modified design by Utzon's successor architect, Peter Hall." No doubt has ever been cast on the overall design of these geometric shell-forms displayed atop a platform.

Utzon did not envision the shells simply as geometric pieces pulled out of a sphere. He wanted them to look like bright sails on the Australian dark waters. After more years of experimentation, a new type of ceramic tile was invented — "the Sydney tile, 120 mm square, made from clay with a small percentage of crushed stone." The roof/skin has 1,056,006 of these tiles.

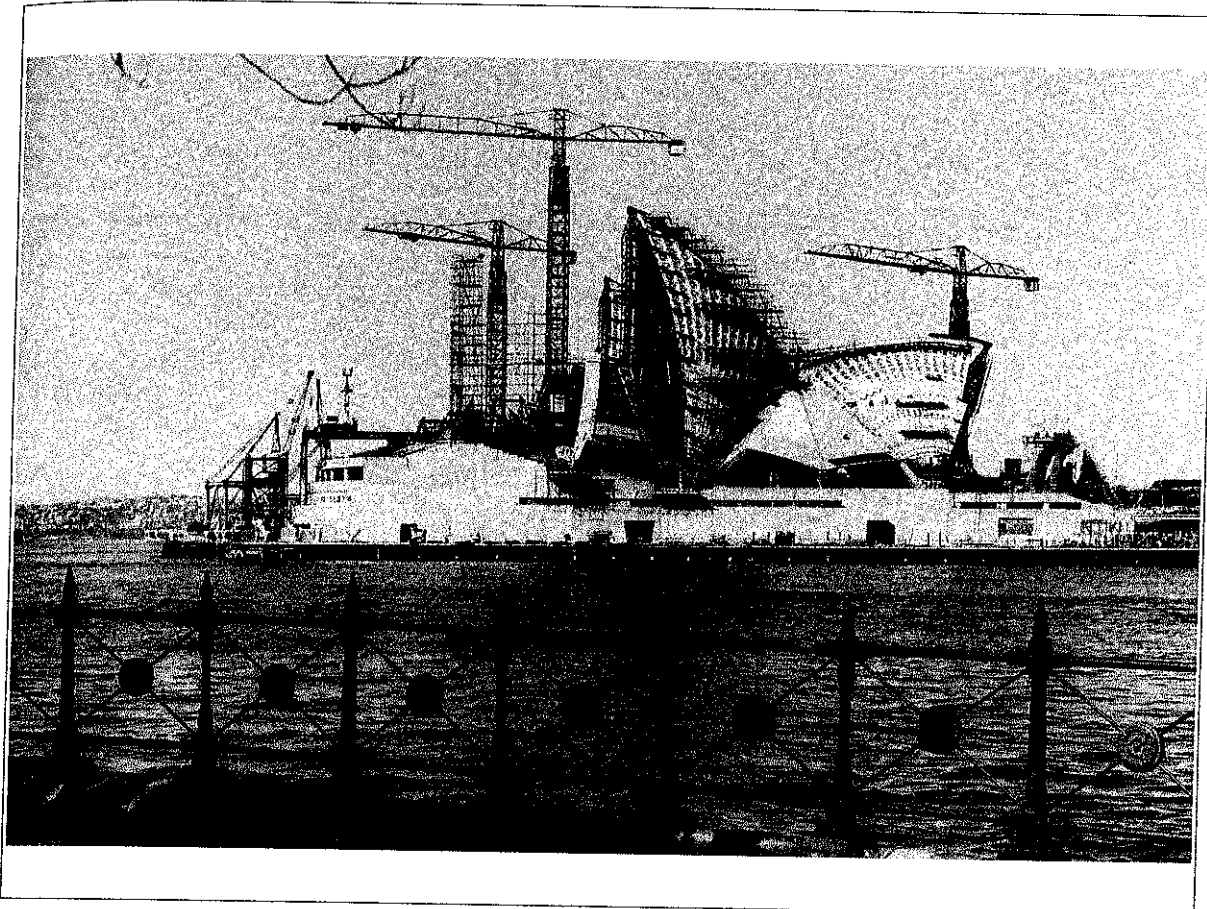
UNESCO reports that the "design solution and construction of the shell structure took eight years to complete and the development of the special ceramic tiles for the shells took over three years."



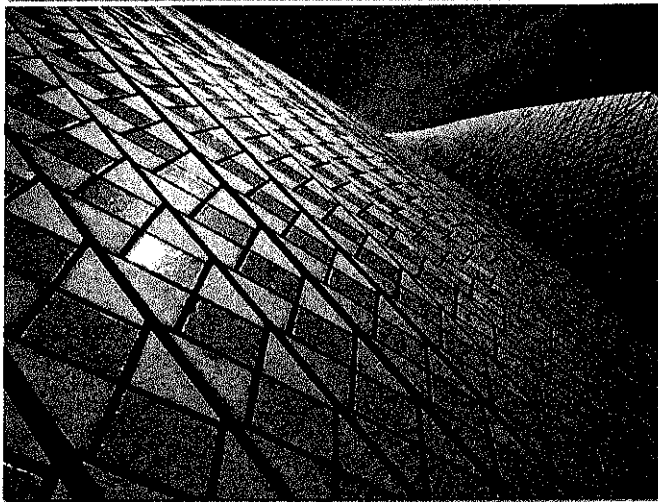
27



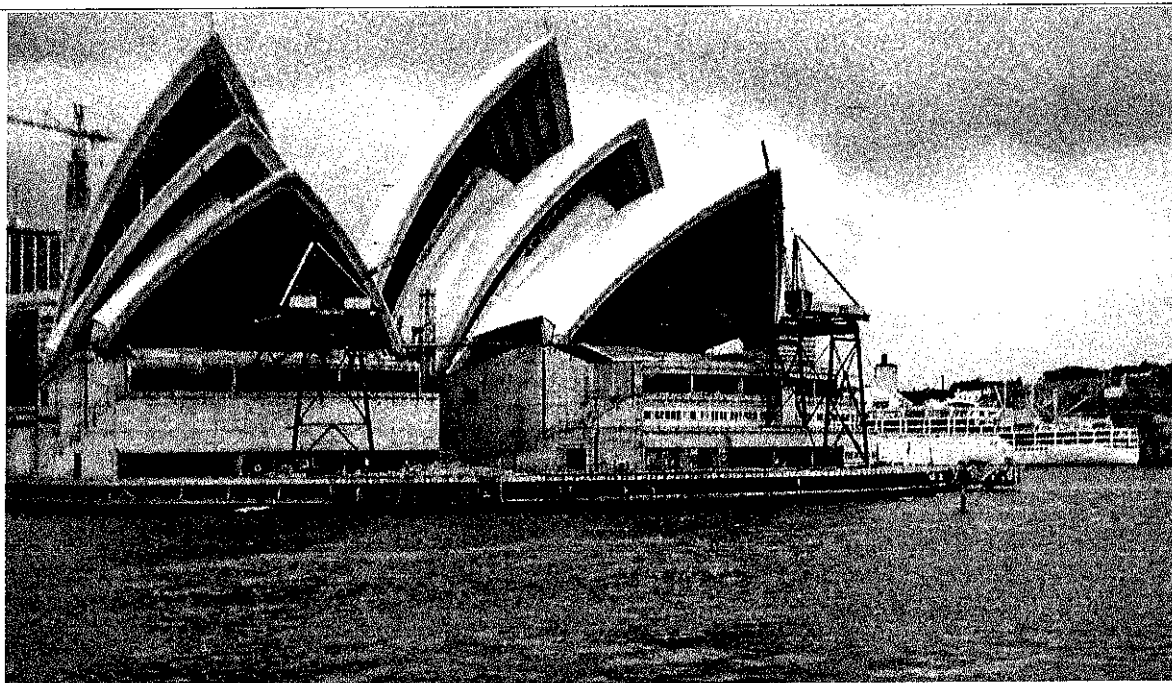
28



The exterior construction materials included precast rib segments "rising to a ridge beam" and a concrete pedestal "clad in earth-toned, reconstituted granite panels." The design was for shells to be clad with glazed off-white tiles. Utzon called this process of construction "additive architecture," where prefabricated elements were joined onsite to create a whole.



31



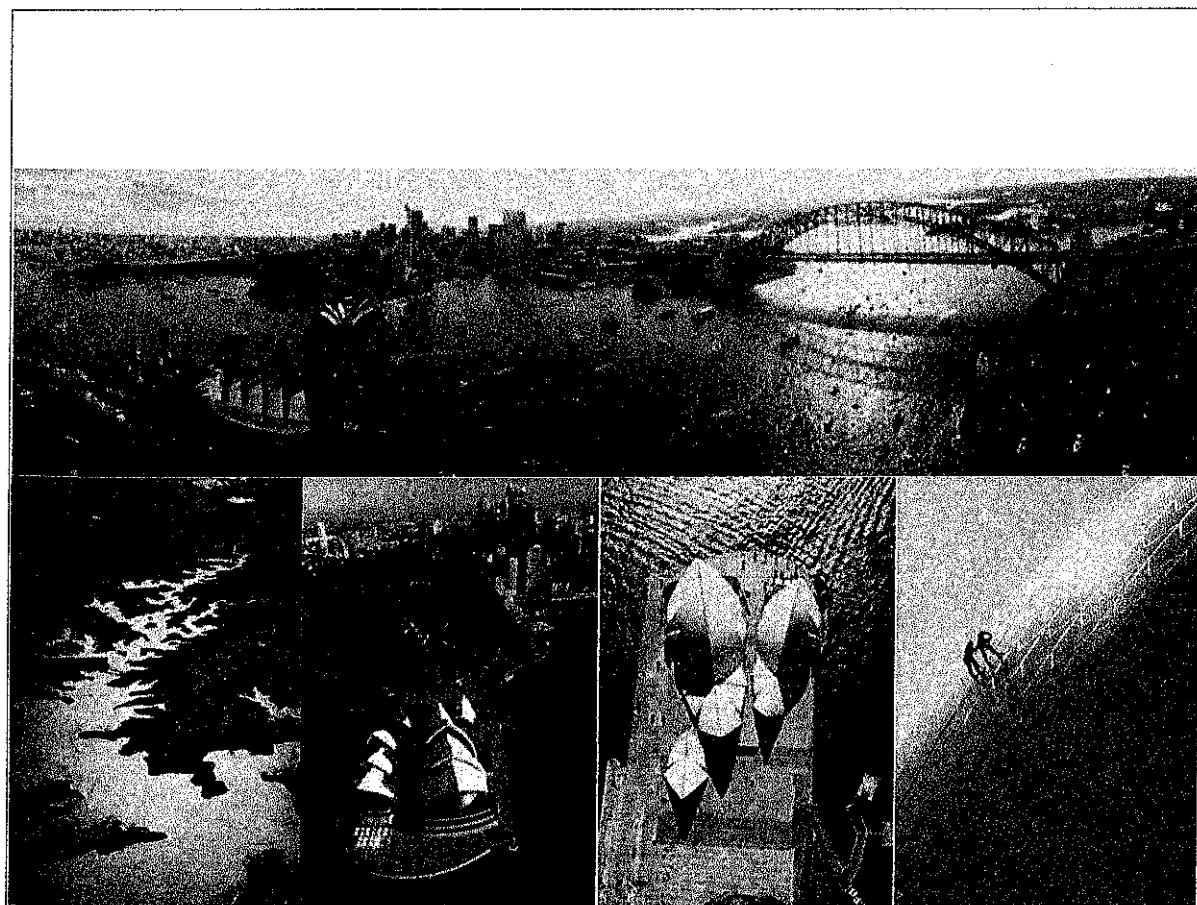
32

SEGUNDA PARTE

FC II BLOQUE DEL PROCESO INTERNACIONAL DE NOMINACIÓN
SYDNBY OPERA HOUSE LE PATRIMONIO MONDIAL DE LA HUMANIDAD
(basado en la recopilación de documentos de las instituciones participantes).

Documento de Unesco
Argumentos y orientaciones de la dirección
Anexo II: Selección de documentos y bibliografía
Conclusiones

33



34

Documento Unesco

Identificación

Nominación

Sydney Opera House

Location: Sydney, New South Wales/33° 51' 24"E 151° 12' 55"W

State Party: Australia

Date of inscription: 2007

Criteria: (i)

Property: 5.8 ha

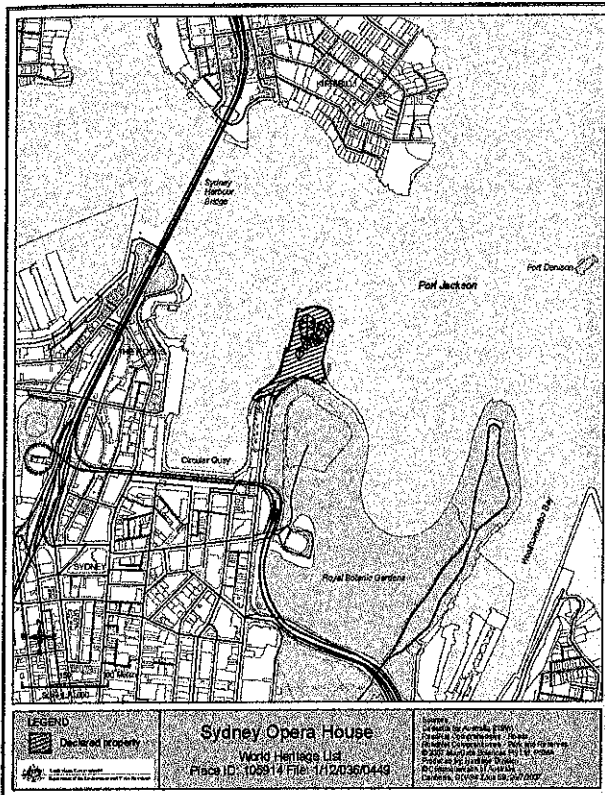
Buffer zone: 438.1 ha

35

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.

36



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.

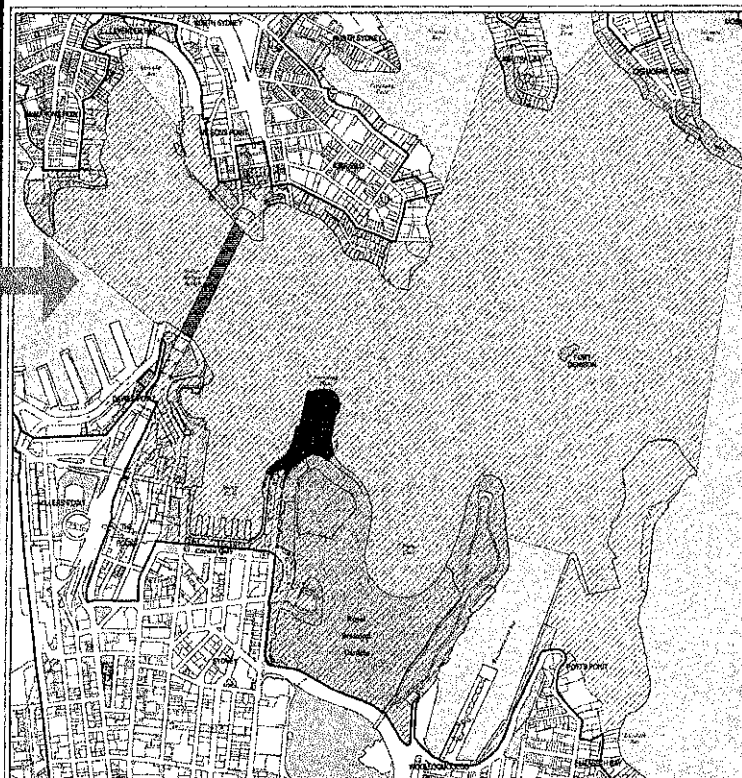
37

Delimitación ambiental y urbana

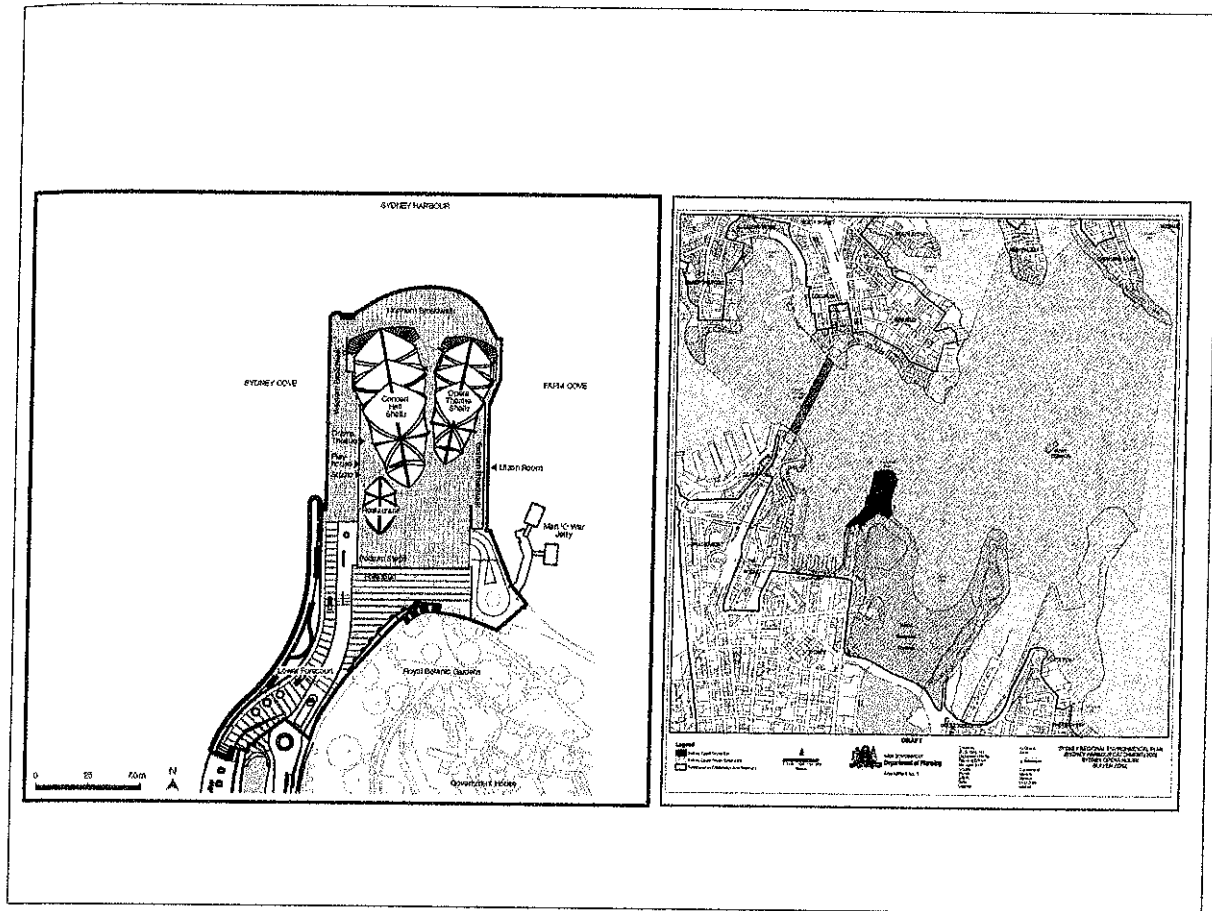
Perímetro de la zona de amortiguamiento

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:

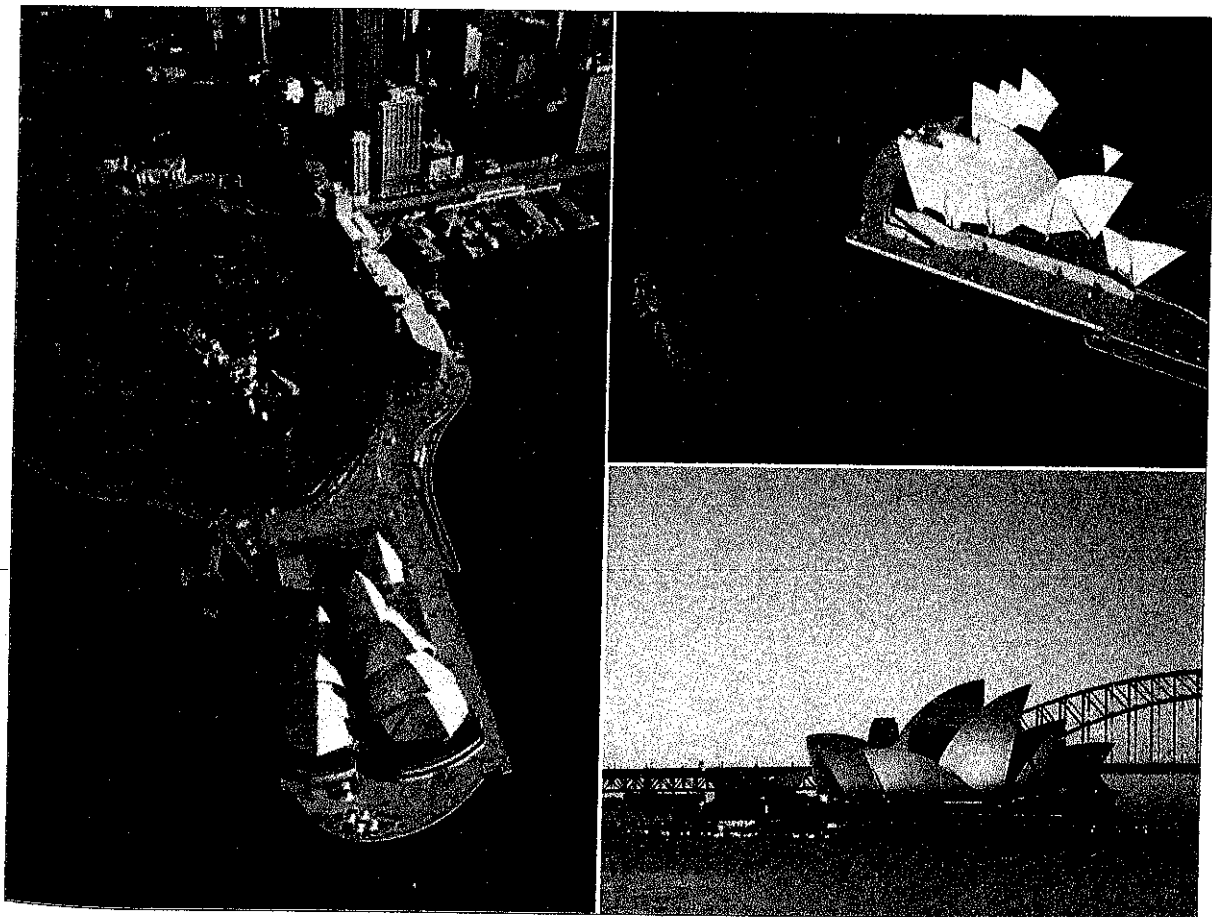
- Define and implement construction regulations for the buffer zone, especially in relation to the conservation of the current skyline of the historic landscape of Sydney Harbour.



38



41



42

Documento Unesco The Property

Description

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.

43

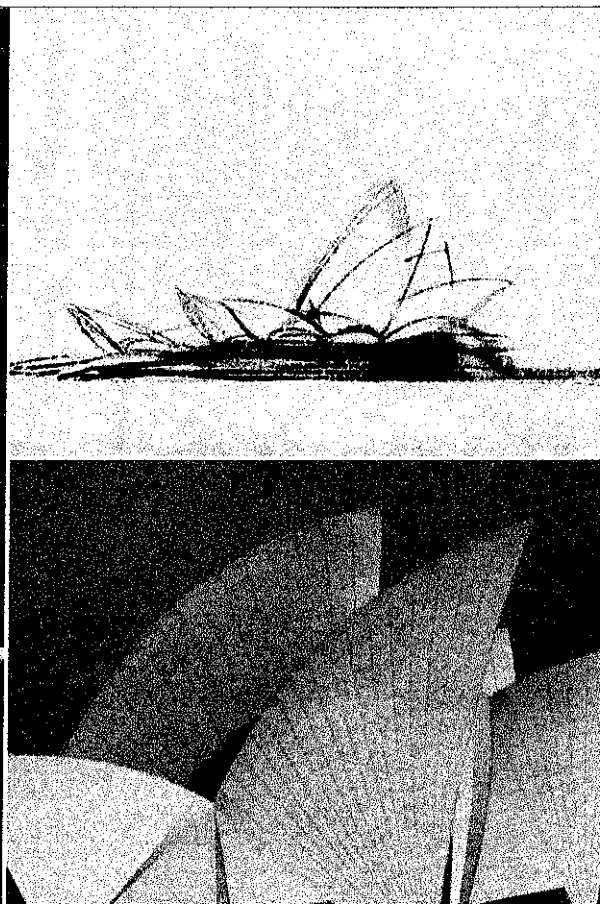
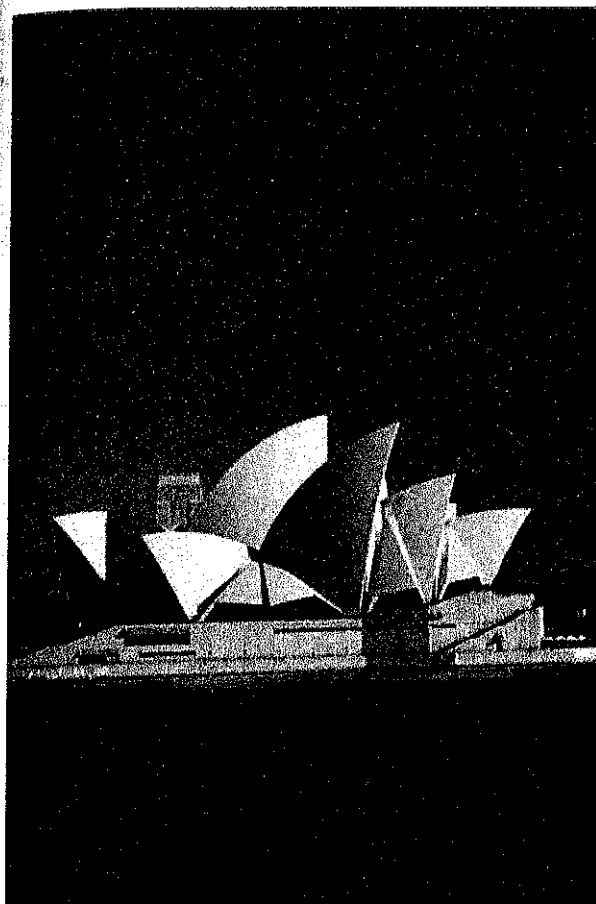
Documento Unesco The Property

History and Development

A major cultural centre for Sydney and its siting at Bennelong Point had been discussed since the 1940s. In 1966 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 history of the Sydney Opera House is as extraordinary and complex as the building. It is a story of vision, courage, belief, dedication, challenge, controversy and triumph. Its many remarkable elements include the submission of a visionary design that the judges courageously selected as winner; the collaborative partnership of architect and engineer that triumphed over enormous odds to produce a solution to the construction of the shells that was as groundbreaking as the design was ingenious; the breach created by Utzon's departure from the project in 1966 in the face of controversial cost and time overruns; and Utzon's re-engagement with his project three decades later to oversee future changes to the Sydney Opera House.

44



45

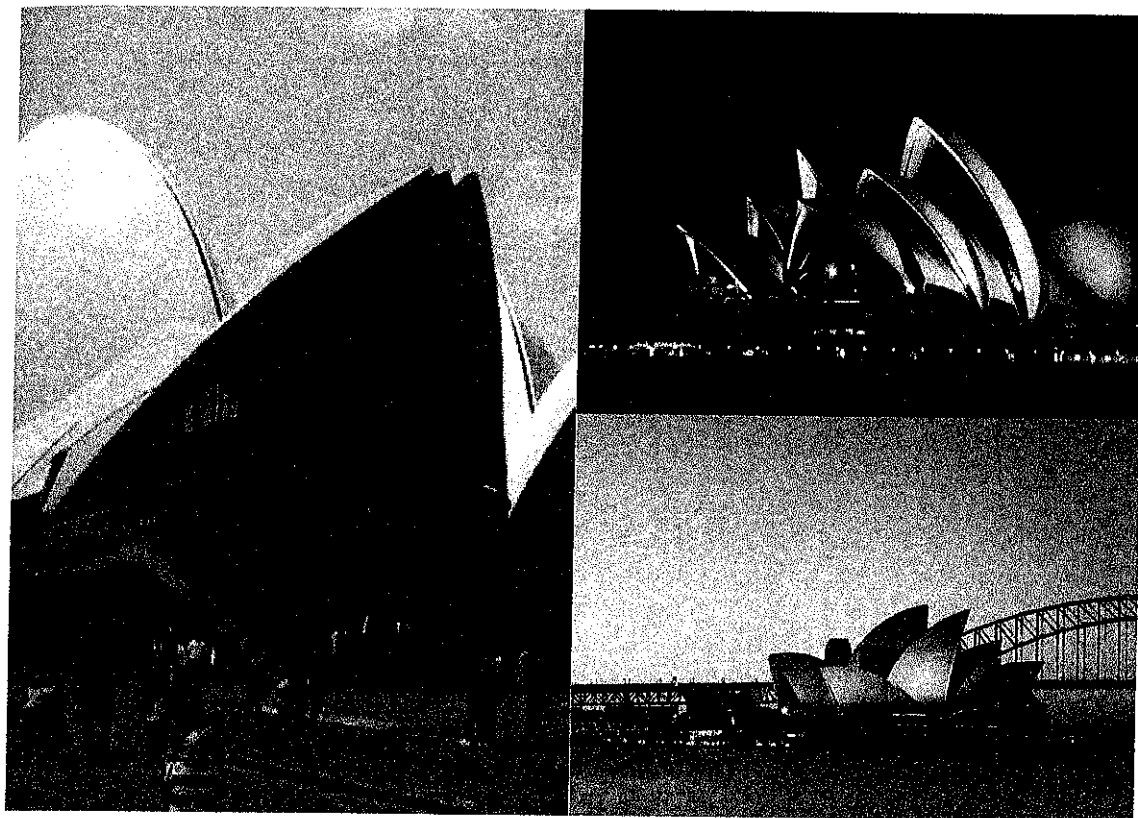
Documento Unesco Outstanding Universal Value

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.

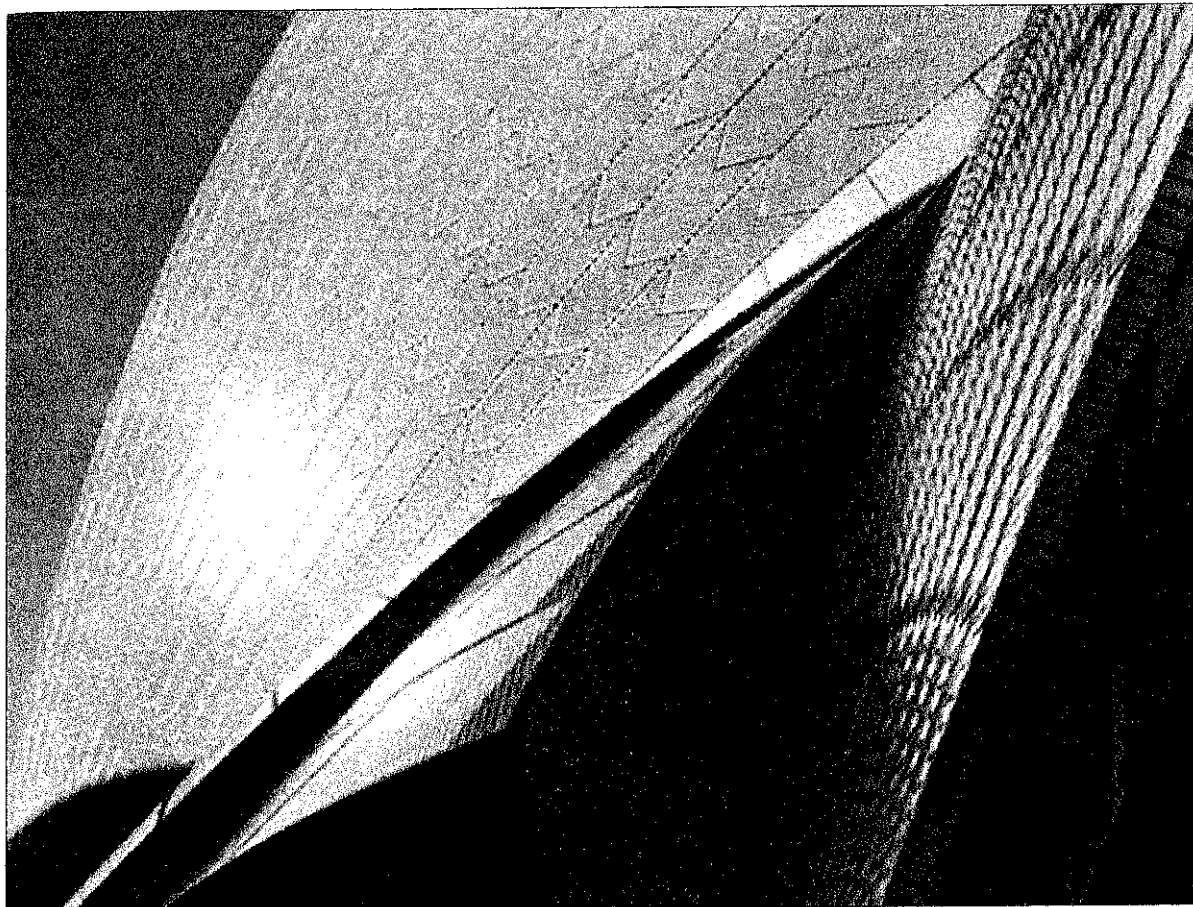


47

Documento Unesco Outstanding Universal Value

Authenticity

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.



49

Documento Unesco Protection, conservation and management

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*.

Documento Unesco Protection, conservation and management

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.

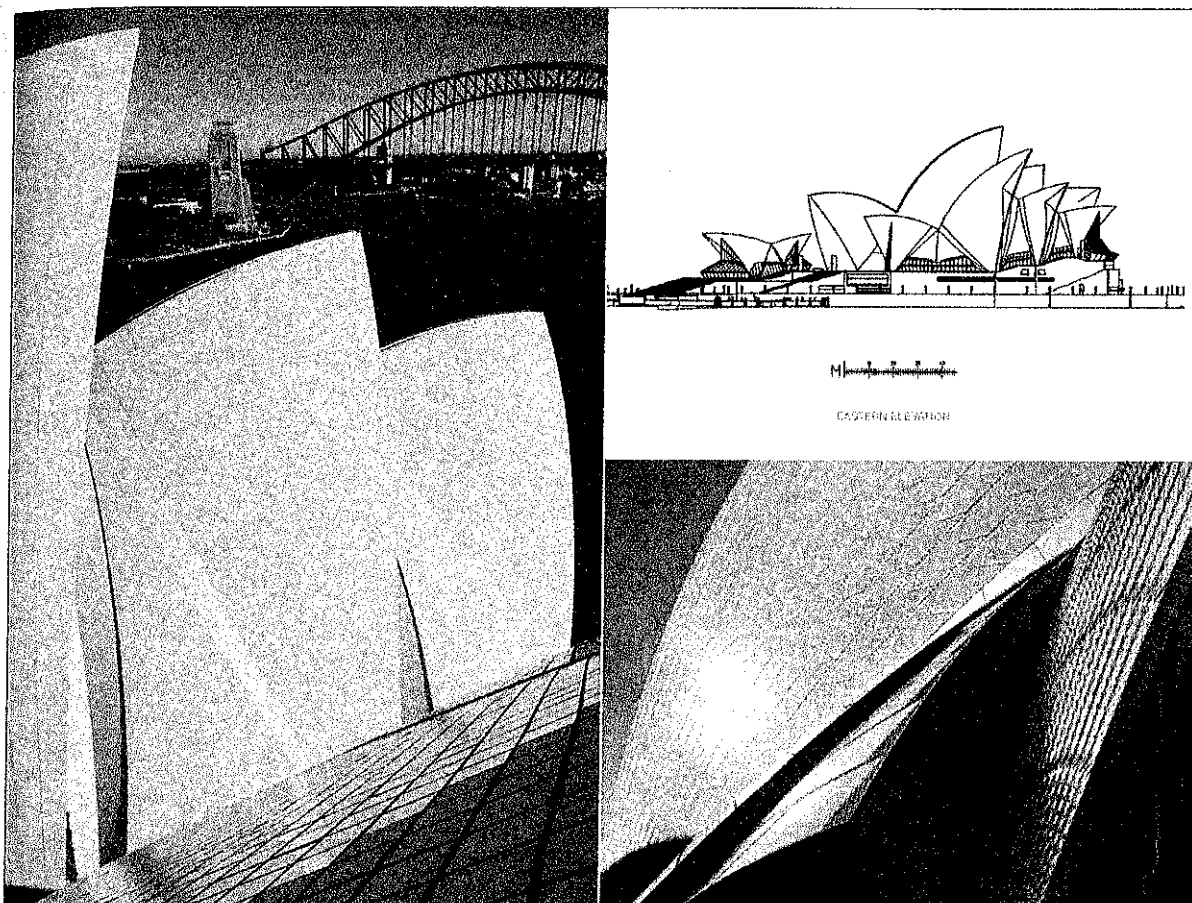
Documento Unesco Protection, conservation and management

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.



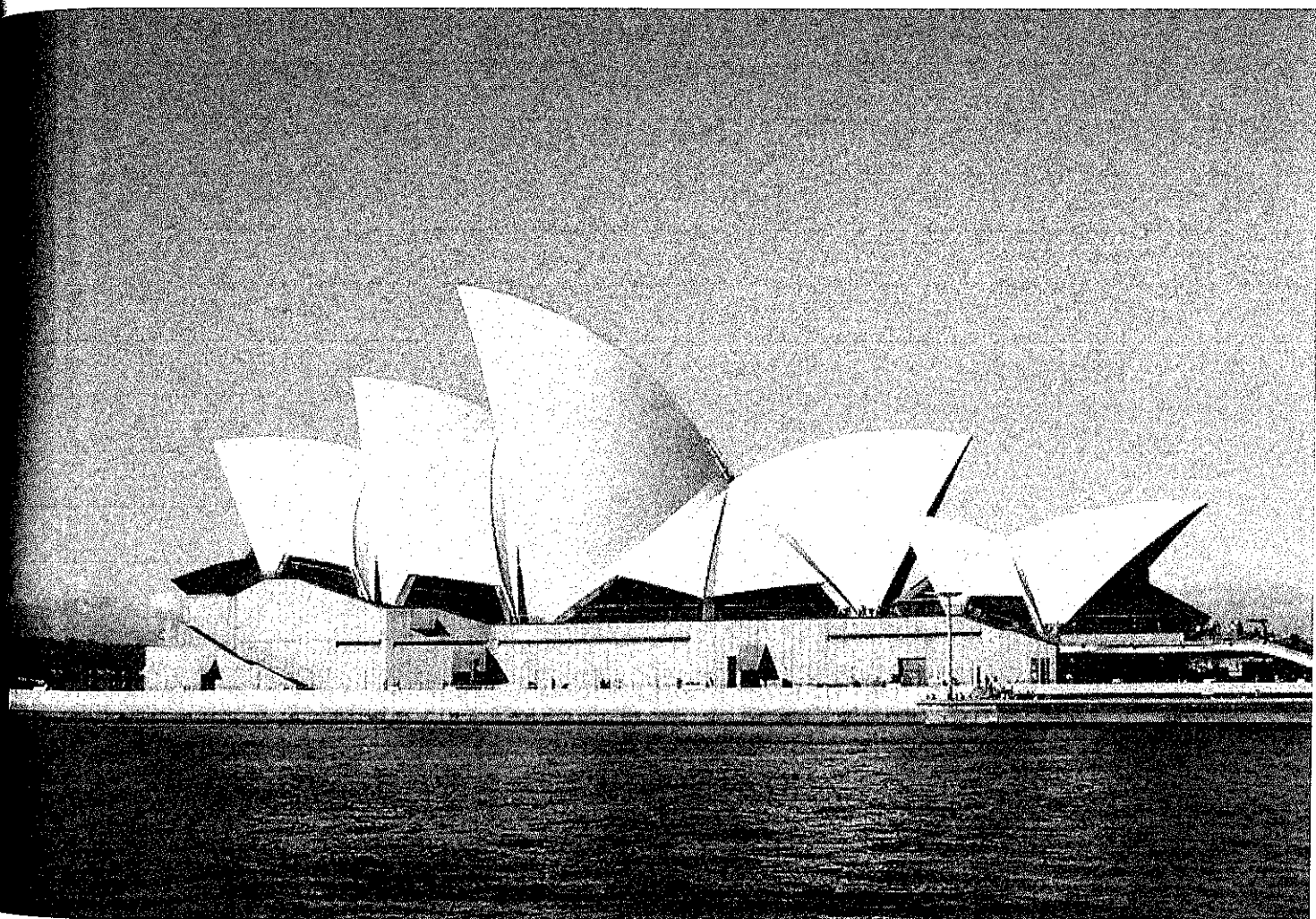
53

Documento Unesco Recommendation

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 20 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.

ANEXOS





The Pritzker Architecture Prize

Jørn Utzon 2003 Laureate Biography

Jørn Utzon's father was director of a shipyard in Alborg, Denmark, and was a brilliant naval architect, many of whose yacht designs are still in production today. Several family members were excellent yachtsmen, and the young Jørn, who was born in 1918, became a good sailor himself. Until about the age of 18, he considered a career as a naval officer. It was about this time, while still in secondary school, that he began helping his father at the shipyard, studying new designs, drawing up plans and making models. This activity opened another possibility—that of training to be a naval architect like his father.

However, yet further influences were introduced during summer holidays with his grandparents. There he met two artists, Paul Schrøder and Carl Kyberg, who introduced him to art. One of his father's cousins, Einar Utzon-Frank, who was a sculptor as well as a professor at the Royal Academy of Fine Arts, provided additional inspiration. Jørn took an interest in sculpting. At one point, he indicated he might want to be an artist, but was ultimately convinced that architectural school would be the best career path. Even though his final marks in secondary school, particularly mathematics, were poor, his excellent freehand drawing talents were strong enough to win his admission to the Royal Academy of Fine Arts in Copenhagen. He was soon recognized as having extraordinary architectural gifts.

When he graduated from the Academy of Fine Arts in 1942, because of World War II, he, like many architects of that time, fled to neutral Sweden where he was employed in the Stockholm office of Hakon Ahlberg for the duration of the war. Following that he went to Finland to work with Alvar Aalto. He had begun to admire the ideas of Gunnar Asplund, as well as Frank Lloyd Wright while still in school. Utzon acknowledges that Aalto, Asplund and Wright were all major influences. Over the next decade, he traveled extensively, visiting Morocco, Mexico, the United States, China, Japan, India, and Australia, the latter destined to become a major factor in his life.

All of the trips had significance, and Utzon himself describes the importance of just one: "As an architectonic element, the platform is fascinating. I lost my heart to it on a trip to Mexico in 1949, where I found a rich variety of both size and idea, and where many platforms stand alone, surrounded by nothing but untouched nature. All the platforms in Mexico are placed very sensitively in the landscape, always the creations of a brilliant idea. They radiate a huge force. You feel the firm ground beneath you, as when standing on a great cliff. Let me give you an example of the power in this idea. Yucatan is a flat lowland area covered by an impenetrable jungle which everywhere attains a certain height. The Maya people used to live in this jungle in villages surrounded by small cultivated clearings. On all sides, and also above, there was the hot, humid, green jungle. No great views, no vertical movements. But by building up the platform on a level with the roof of the jungle, these people had suddenly conquered a new dimension that was a worthy place for the worship of their gods. They built their temples on these high platforms, which can be as much as a hundred metres long. From here, they had the sky, the clouds and the breeze, and suddenly the roof of the jungle was transformed into a great, open plain. By means of this architectonic device they had completely transformed the landscape and presented their eyes with a grandeur that corresponded to the grandeur of their gods. The wonderful experience of going from the denseness of the jungle to the vast openness above the platform is still there today. It is like the liberation you feel up here in the Nordic lands when, after weeks of rain, cloud and darkness, you suddenly emerge into the sunlight again."

The idea of the platform would manifest itself in many of Utzon's designs over the years, including that of the Sydney Opera House, where he described it as follows: "...the idea has been to let the platform cut through like a knife and separate primary and secondary functions completely. On top of the platform the spectators receive the completed work of art and beneath the platform every preparation for it takes place."

Utzon continued, "To express the platform and avoid destroying it is a very important thing, when you start building on top of it. A flat roof does not express the flatness of the platform ... in the schemes for the Sydney Opera House ... you can see the roofs, curved forms, hanging higher or lower over

Jørn Utzon, 2003 Laureate (continued)

the plateau. The contrast of forms and the constantly changing heights between these two elements result in spaces of great architectural force made possible by the modern structural approach to concrete construction, which has given so many beautiful tools into the hands of the architect."

The saga of the opera house actually began in 1957, when, at the age of 38, Jørn Utzon was still a relatively unknown architect with a practice in Denmark near where Shakespeare had located Hamlet's castle. He was living in a small seaside town with his wife and three children—one son, Kim, born that year; another son Jan, born in 1944, and a daughter, Lin, born in 1946—all three would follow in their father's footsteps and become architects. Their home was a house in Hellebæk that he had built just five years before, one of the few designs that he had actually realized since opening his studio in 1945.

He had just entered an anonymous competition for an opera house to be built in Australia on a point of land jutting into Sydney harbor. Out of some 230 entries from over thirty countries, his concept was selected—described by the media at the time as "three shell-like concrete vaults covered with white tiles."

It has become the most famous, certainly the most photographed, building of the 20th century. It is now hailed as a masterpiece—Jørn Utzon's masterpiece.

The Sydney Opera House is actually a complex of theatres and halls all linked together beneath its famous shells. Since its opening in 1973, it has become the busiest performing arts centre in the world, averaging some 3000 events a year with audiences totaling some two million, operating 24 hours a day, seven days a week closing only on Christmas and Good Friday.

Books have been written, and films made chronicling the sixteen years it took to complete the Sydney Opera House. One such book is by Françoise Fromonot, *Jørn Utzon - The Sydney Opera House*. Utzon, who is described as being an intensely private person was unwittingly entangled in political intrigues and besieged by a hostile press, which eventually forced him out of the project before it was completed. But he was able to accomplish the basic structure, leaving just the interiors to be finished by others.

As Pritzker Laureate and Juror Frank Gehry puts it, "Utzon made a building well ahead of its time, far ahead of available technology, and he persevered through extraordinary malicious publicity and negative criticism to build a building that changed the image of an entire country. It is the first time in our lifetime that an epic piece of architecture has gained such universal presence."

In the last year, plans were announced to refurbish the interiors, and Utzon, now 84, has high hopes that the interior will be full of color rather than a black hole. His son Jan is part of the new design team as Jørn Utzon's representative.

Their firm, Utzon Architects, has an agreement with the Sydney Opera House Trust and indirectly with the Australian government to work toward future development and renovation of the building. One aspect is to develop a Design Principles document, which will take a reader through the building explaining the underlying principles for the design decisions that produced the end results. The document will serve as a manual or guideline for future generations when alterations or modifications to the building are contemplated. Another aspect is to provide actual designs for a number of changes and modifications which are presently needed if the building is to comply to today's expectations. Current work is concentrating on some of the interior spaces and access to the western foyer from the western boardwalk.

Jørn Utzon has stated recently, "It is my hope that the building shall be a lively and ever-changing venue for the arts. Future generations should have the freedom to develop the building to contemporary use."

Jørn Utzon, 2003 Laureate (continued)

But Jørn Utzon has contributed far more than one masterpiece in his lifetime. As noted architectural author and critic Ada Louise Huxtable points out in her Pritzker Jury comments, "In a forty year practice, each commission displays a continuing development of ideas both subtle and bold, true to the teaching of early pioneers of a 'new' architecture, but that cohere in a prescient way, most visible now, to push the boundaries of architecture toward the present. This has produced a range of work from the sculptural abstraction of the Sydney Opera House that foreshadowed the avant garde expression of our time, and is widely considered to be the most notable monument of the 20th century, to handsome, humane housing and a church that remains a masterwork today."

She refers to the Utzon's church in Bagsværd, a community just north of Copenhagen, where in the 16th century, the King of Denmark allowed an existing church to be pulled down to provide bricks for the restoration of a building for the university. The town was without a church building for 400 years, until their pastor happened to see some of Utzon's work.

"At an exhibition of my works, including the Sydney Opera House," says Utzon, "there was also a drawing of a small church in the centre of a town. Two ministers representing a congregation that had been saving for 25 years to build a new church, saw it and asked me if I would be the architect for their church. There I stood, and was offered the finest task an architect can have—a magnificent time when it was the light from above that showed us the way."

The genesis of the design according to Utzon, went back to a time when he was teaching at the University of Hawaii where he spent time on the beaches. One evening, he was struck by the regular passage of clouds thinking they could be the basis for the ceiling of a church. His early sketches showed groups of people on the beach with clouds overhead. His sketches evolved with the people framed by columns on each side and billowing vaults above, and moving toward a cross.

It's not surprising that the end result provoked this comment from another Pritzker Juror, Carlos Jimenez who is an architect and teacher himself: "...each work startles with its irrepressible creativity. How else to explain the lineage binding those indelible ceramic sails on the Tasmanian Sea, the fertile optimism of the housing at Fredensborg, or those sublime undulations of the ceilings at Bagsværd, to name just three of Utzon's timeless works."

Both jurors Jimenez and Huxtable singled out "housing" in their comments. There are two courtyard-style housing estates in Denmark designed by Jørn Utzon: the Kingo Houses in Helsingør and the houses in Fredensborg. His interest in courtyard-style housing was first shown in a competition for Skåne, Sweden in 1953. He based his designs on his own experiences. His family home in Ålborg had a nursery garden in front. The neighbors all had huts, sheds or some kind of shelters for a variety of activities—raising rabbits, boat-building, or simply storing items for family activities. Traditional Danish farmhouses had four sheltering sections set around a central courtyard. Further, Utzon had studied Chinese architecture which described their farm houses as being completely closed to the outside, but opening onto a central court. And he learned of a Turkish building regulation that allowed no one to block the view of existing houses. Designing with these tenets in mind, he won the Swedish competition, but the project was never realized.

Not long after that, he took his Swedish plans to the Mayor of Helsingør along with a study he had done on a poorly designed and executed housing development that had been built in Denmark. He was able to convince the Mayor that he could provide his Swedish design for the same cost as the poorly done one. The Mayor put a tract of nine acres of land with a pond and rolling hills at his disposal for his housing plan. Utzon commissioned a show house from a firm of builders. The house was a success and eventually 63 houses were built within cost restrictions set up by the government to keep the costs below a certain level for low income workers. The 63 houses were built in rows following the undulations of the site, providing a specific view for each house, as well as the best situation possible for sunlight and shelter from the wind. Utzon likes to describe

Jørn Utzon, 2003 Laureate (continued)

the arrangement of the houses as "like flowers on the branch of cherry tree, each turning toward the sun."

The individual houses are L-shaped with a living room and study in one section, and the kitchen, bedroom and bathroom in the other. Walls of varying heights closed the remaining open sides of the L.

The success of these houses at Helsingør led to another for the Dansk Samvirke, a support organization for Danish citizens who have worked for long periods abroad in business or the Foreign Service. They wanted a development for retirees who had returned to Denmark and could live in a community and share their experiences.

Utzon accepted the task of conceiving the program and designing the houses, even though no site had been found, and without fee if the project was not built. He helped find the site in Fredensborg, North Zealand, and developed a plan that allowed each house to have a view of and direct access to a green slope. Since there was no comparable society as this anywhere, Utzon had to invent the details of the project and make them conform to his idea for the individual houses. One of the things the committee wanted was a centre where the residents could meet, along with a dining room and kitchen, a communal lounge and party area. Some office space was needed as well as several guest rooms for the residents' guests, which in effect became a small hotel.

In the end, the Fredensborg development was designed with 47 courtyard and 30 terraced houses. The terraced houses were grouped around a square in staggered blocks of three, with all entrances from the square. A detailed account of this project is available in a book titled *Jørn Utzon - Houses in Fredensborg* by Tobias Faber with photographs by Jens Frederiksen.

In addition to these projects in Denmark and Australia, Utzon has accomplished exceptional projects in Kuwait and Iran. In the former country, he designed the building to house the National Assembly.

The invitation to compete for Kuwait National Assembly reached Utzon in 1969 while he was teaching at the University of Hawaii. There were few constraints to the project. The site was along the ocean front, with "haze and white light and an untidy town behind," as Utzon describes it.

As a result of his travels, Utzon had developed an affinity for Islamic architecture. In the definitive book by Richard Weston titled simply, *Utzon*, the project is described as follows:

"The complex was conceived as an evolving fabric with, initially, ragged edges but of uniform height save for the representative spaces—the covered square, parliamentary chamber, large conference hall and mosque—which would rise as visually dominant group. These four major elements formed the corners of an incomplete but clearly implied rectangle, and the highest surfaces of their distinctive roofs—as specified in a three-dimensional sketch—were to lie in the same plane to create a 'firm strong grouping' to 'hold the rest of the complex (which in its nature is irregular as it grows) together. Dominate it' as Utzon explained in a note next to the sketch. The mosque was flat-roofed and anchored one corner of this spatial core—it would later be angled slightly toward Mecca—and its autonomy was stressed by making it independent of the office grid. The other roofs were sag curves, reflecting Utzon's interest in fabric as a metaphor for concrete—we may recall it was shortly before this time that he had explored the Bagsværd Church's cloud-vaults with fabric models."

It should be noted that in February of 1991, Iraqi troops, retreating before the international alliance, set fire to the building. Since, a 70 million dollar restoration was undertaken resulting in a number of departures from Utzon's original design.

Back in 1947 when Utzon was still a struggling young architect, a relative offered him an opportunity to supplement his meager income by going to work in Morocco preparing designs for factories there. The

Jørn Utzon, 2003 Laureate (continued)

few months he spent there provided his first experience with Islamic architecture, which, just as the trip to Mexico had done, became another decisive influence on his work.

In 1958, he was approached to design a branch of the Iran National Bank in the university area of Teheran. Utzon was delighted to take the job because of his intense interest in Islamic architecture.

The client wanted the bank to stand out from its neighbors so, as described by Richard Weston in his book, *Utzon*, "Utzon decided to set it back on a raised platform framed by boldly projecting flank walls, thick enough to contain services. To one side the flank wall was doubled to form a servant zone to accommodate an office, private interview rooms and other support spaces; two additional administrative floors spanned between the outer walls above the entrance. The raised platform made for a dramatic entrance sequence: visitors pass through a low dark space, roofed by V-shaped beams, and then enter the open banking hall which expands dramatically both up and down, affording a sight of the whole interior."

In 1985, Utzon's practice included his two sons, Jan and Kim. Ole Paustian, who headed one Denmark's leading furniture companies, asked them to design a new showroom in a waterfront area of Copenhagen Harbor that would be an extension of one of Paustian's existing warehouses. Utzon designed the showroom and an adjacent restaurant with sketches and sent them to his two sons who executed the final drawings and plans. Much later in 2000, Kim Utzon completed the complex with an adjacent office building and yacht club.

Currently, Jørn Utzon lives in retirement with his wife Lis, on the island of Majorca, where they originally began building a home in 1971 and completed it two years later. It was almost twenty years later, that the Utzons decided to build another house on Majorca, nestled on the side of a mountain. The decision to build there was prompted by several reasons: the glare from the sea became very tiring for eyes weakened by a lifetime of close work with drawings; the pounding surf became more of a disturbance than a comfort; and there were more and more intrusions by architecture buffs seeking to wander the site.

The design of Can Feliz, as the new home is named in a site called "Paradise," harks back to Utzon's love of the platform concept. The house has been described as a miniature acropolis.

Jørn Utzon is an artist and architect whose response not only to ancient cultures of Islam and the Mayans, as well as the Japanese and Chinese, but also his affinity for nature, and the use of natural materials, places him in a firmament populated by only the most gifted of all the ages.

One unrealized project bears mentioning here—the Silkeborg Museum of Fine Arts. A Danish artist named Asger Jørgensen (who later changed his name to Asger Jørn) approached Utzon in 1961 to build an addition to the Silkeborg Museum where a collection of his art work could be housed. He even volunteered to pay the architect's fees because he could not see anyone other than Utzon designing the addition. The following is a portion of Utzon's own description of the project, which provides a closer look at the architect's thought processes:

"The museum, which lies in an old, well-stocked garden with a wing divided into bays, is designed so that it does not disturb the surroundings, but concentrates 100% on the interior.

"A building of several storeys above the ground would be like a bull in a china shop, and the respect for the existing calm wing of the museum calls for a solution that will not dominate the surroundings on account of its size.

"It feels natural to bury the museum in the ground to a depth corresponding to the height of a three-storeyed building and only to allow the upper part—the roof lights taking up one storey—to appear above the ground level.

Jørn Utzon, 2003 Laureate (continued)

"The design of this buried museum has a character rather like a cave or an oven. Because they are a direct continuation of the walls of the museum, the visible one-storey roof lights suggest this cave-like character and clearly demonstrate the reason for their special design.

"In contrast to a square room, a cave has a distinct enclosed effect thanks to its natural shape without right angles. Continuous shapes such as we have in the museum express and emphasise the quadrilateral canvases and objects in the same powerful way that a cyclorama on a stage emphasises the individual characters and the flats.

"The floor, too, has been included in this continuous movement, and these dramatic shapes also correspond well with the idea of digging the museum out underground.

"The inspiration for the design of the museum comes from many different experiences -including my visit to the caves in Tatung, west of Peking, where hundreds of Buddha sculptures and other figures are carved in caves in the rocks by the bank of the river. These sculptures appear in all shapes in contrast to or in harmony with the surrounding space. The caves are all of varying sizes and shapes and with varying illumination. The old Chinese sculptors have experimented with all possibilities, and the most fantastic thing is a cave that is almost filled with a Buddha figure with c.7-metre-high face. Three platforms linked by ladders give the visitor the possibility of walking around and coming to close quarters with this gigantic figure.

"Here, in this museum, it is possible to exhibit paintings and sculptures the size of a three-storeyed building so that it is possible to walk around the objects on all levels on the system of ramps, and perhaps the possibility of this kind of exhibition leads to a new line of development in decorative art in place of the ordinary form in public buildings today, which are merely easel paintings on a gigantic scale.

"The various works of art can also be exhibited individually or in groups in every conceivable manner. It will also be possible in one of the large ovens to isolate a single large painting or sculpture that must be viewed on its own.

"The continuous space in the museum provides surprising background effects with varied light for paintings and sculpture - a background effect of the same infinite character as a cyclorama on a stage.

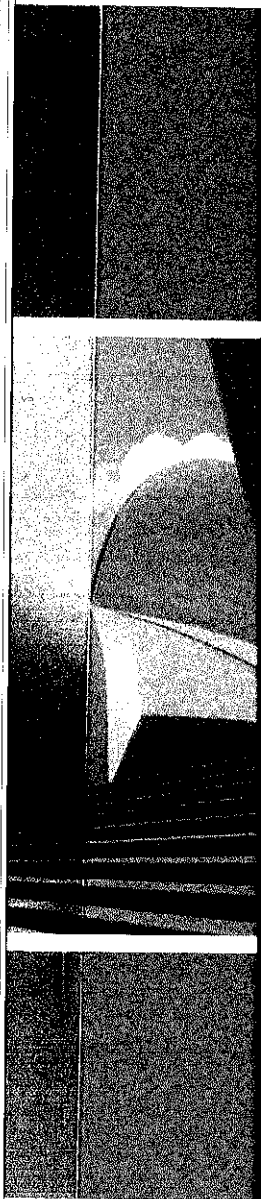
"The chimneys give the museum a clean, but varied roof light. The amount of light can be varied by means of blinds, and if it is so desired the roof light in the chimneys can be replaced with direct spotlight directed on a single object. The mullions supporting the roof lights are provided with suspension points so that they act like rigging loft in a theatre, so there will be the possibility of placing an object anywhere in the room.

"The light mainly falls in along the walls and on the floors without disturbing shadow effects at the corners, and the irritation element from the direct light from above is avoided.

"It will be with a sense of surprise and a desire to penetrate down into the building that the visitor for the first time sees the three-storeyed building open beneath him. Unconcerned - stairs and corridors which normally disturb - the viewer will glide almost effortlessly down into the museum via the ramp, taking him through the space.

"Strict geometry will form the basis for a simple constructional shape. The visible curved external surfaces are to be clad with ceramics in strong colours so that the parts of the building emerge like shining ceramic sculptures, and inside the museum will be kept in white.

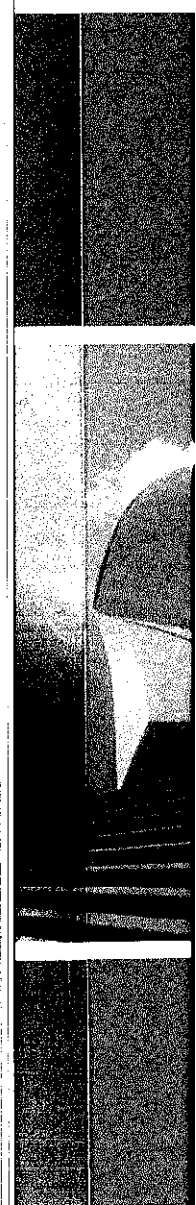
"In the work with the curved shapes in the opera house, I have developed a great desire to go further with free architectural shapes, but at the same time to control the free shape with a geometry that



Jørn Utzon, 2003 Laureate (continued)

makes it possible to construct the building from mass produced components. I am quite aware of the danger in the curved shapes in contrast to the relative safety of quadrilateral shapes. But the world of the curved form can give something that cannot ever be achieved by means of rectangular architecture. The hulls of ships, caves and sculpture demonstrate this."

While Jørn Utzon has retired with his wife to one of the houses he designed on Majorca, his sons, Jan who is 58 and has been working with his father since 1970, and Kim, who is 46, both carry on with Utzon Architects. A daughter, Lin, who is an artist of giant porcelain murals and other decorative media, works closely with architects. A third generation of Utzon's, a son and daughter of Jan have both received their architecture degrees.



©The Hyatt Foundation

For more information, please contact:

Martha Thorne, Executive Director

The Pritzker Architecture Prize

71 South Wacker Drive

Suite 4700

Chicago, Illinois 60606

email: marthathorne@pritzkerprize.com

Jørn Utzon

2003 Laureate

Essay

The Architecture of Jørn Utzon

By Kenneth Frampton

Ware Professor of Architecture

The Graduate School of Architecture Planning and Preservation

Columbia University, New York

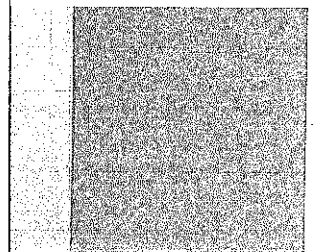
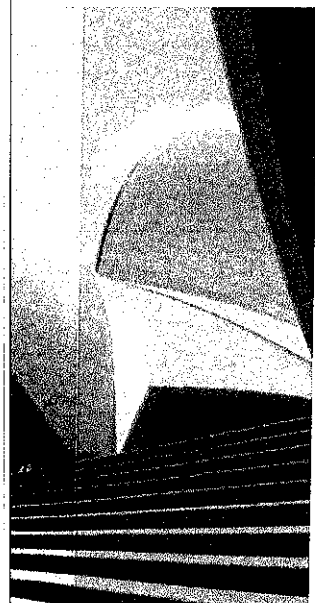
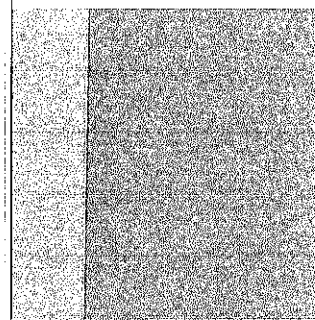
"It seems to me that past, present and future must be active in the mind's interior as a continuum. If they are not, the artifacts we make will be without temporal depth or associative perspective.... Man after all has been accommodating himself physically in this world for thousands of years. His natural genius has neither increased nor decreased during that time. It is obvious that the full scope of this enormous environmental experience cannot be combined unless we telescope the past.... Architects nowadays are pathologically addicted to change, regarding it as something one either hinders, runs after, or at best keeps up with. This, I suggest, is why they tend to sever the past from the future, with the result that the present is rendered emotionally inaccessible, without temporal dimension. I dislike a sentimental antiquarian attitude toward the past as much as I dislike a sentimental technocratic one toward the future. Both are founded on a static, clockwork notion of time (what antiquarians and technocrats have in common), so let's start with the past for a change and discover the unchanging condition of man."

—Aldo Van Eyck

It is an embarrassment that the first edition of my *Modern Architecture: A Critical History* (1980), made no reference to the work of Jørn Utzon. Even within the constraints of a concise history such an omission now seems inexcusable and in subsequent editions I have attempted to redress this. Over the past decade the canonical importance of Utzon has become increasingly evident, not only because of his authorship of one of the most significant monuments of the twentieth century but also because both before and after the realization of the Sydney Opera House he would project a wide range of equally seminal works, together with a number of compelling realizations. Given the exceptionally fertile character of his career, he is, in his eighty-fifth year, a fitting recipient of the Pritzker Prize.

Comparable in subtle ways to the protean achievements of Le Corbusier, Utzon's architecture emerges today as paradigmatic at many levels not least of which is the manner in which, from the beginning of his career, he would challenge the assumed superiority of Eurocentric culture. The other equally basic postulate of his architecture, which remains as challenging now as when it first appeared around 1947 turns on its irreducible grounding in the opposition of *earthwork* versus *roofwork*. Two seminal preconditions attend this principle; first, the recovery of the roof-form, hitherto largely repressed in the Modern Movement with its fixation on the flat roof, and, second, the equally intrinsic import of the *earthwork* as a necessary landform capable of integrating a structure into the surface of the earth.

Aside from their mutual preoccupation with the inherently topographic aspect of architecture, Utzon came to share with Frank Lloyd Wright, whom he met in 1949, a common drive to project a global building culture which, while equally inspired by both occidental and oriental paradigms, would nonetheless exploit the technological capacity of the epoch while simultaneously responding to the contours of a particular site and the latent expressivity of a specific program. In the last analysis we can say that the tectonic potential of advanced engineering form perhaps played a more decisive role in the evolution of Utzon's architecture than it did in the case of Wright, so that shell concrete construction, after the exemplary work of Maillart, Candela and Torroja, and folded plate construction in post-tensioned reinforced concrete, after the inventions of Pier Luigi Nervi, patently informed the earliest flights of his imagination, not only in his remarkable proposal for the Crystal Palace site in London, designed with Tobias Faber in 1947, but also in his equally epic studies of the time for a permanent world exhibition site in Copenhagen (1959) and for a utopian settlement in the turbulent mountain landscape around Elvira in Spain (1960). Apart from the shell concrete roofs that became the touchstone of his early style, the Elvira project was also directly inspired by experiencing the Mayan



The Architecture of Jørn Utzon (continued)

ruins in Chichen Itzá, Monte Alban and Uxmal; a civilization that provided him with the essential format of the stepped platform or podium to which he would return repeatedly throughout his career.

For Utzon, as for Wright and Aalto, there would be no necessary contradiction between an unequivocally modern architecture and a building culture that hypothetically would be more generally accessible to the society at large, just as for him there was no inherent rupture between modernity as such and the more enduring and inspiring continuity of universal civilization, seen as a differentiated whole. The subtlety of this position is brilliantly exemplified by Utzon's 1953 project for a restaurant tower which was envisaged as being built on the Langelinie promontory in Copenhagen; a proposal as much inspired by the antique form of the Chinese pagoda as by Wright's S.C. Johnson laboratory tower built at Racine, Wisconsin in 1947. Utzon aimed at realizing a popularly accessible work in much the same sense as Wright's Guggenheim Museum would be well received by the general public a few years later.

The validity of this subtle approach would never be more convincingly demonstrated than by the two low-rise, medium density housing schemes that Utzon built in North Zealand, Denmark between 1956 and 1963, the first at King near Helsingør and the second at Fredensborg. Both of these single-story residential communities were based on an atrium typology comprising an L-shaped dwelling in plan, set within a square court and enclosed on all sides by brick walls. Featuring mono-pitched roofs capped by Roman tiles and draining into the private courtyards, these standard dwellings, virtually square in plan, were assembled into continuous chevron formations and fed by automobiles in such a way as to conform to the American Radburn principle of separating vehicular and pedestrian movement. In both settlements each house, attached to its neighbor, is accessed in two ways; first from the relatively blank, brick-faced exteriors fronting onto streets feeding into the fabric and second from an interstitial greensward permeating the settlement, exclusively restricted to pedestrian use. What Utzon was able to postulate with these two interrelated schemes was an alternative suburban land settlement pattern for a megapolitan, ex-urban world, one that has never been equaled, neither culturally in terms of accessible imagery nor environmentally from an ecological standpoint. He would proceed to show in a remarkable proposal for Odense University, dating from 1967, how this same typology could be deployed to achieve a city-in-miniature by replacing the interstitial greensward with public courts and vehicular-free pathways leading into the *res publica* of a civic center, flanked by civic facilities and crowned by a shell concrete assembly hall.

Three years later in a seminal article published in the Danish magazine *Arkitektur* Utzon elaborated his concept of an additive architecture, a principle that was already evident in the Odense project. In so doing he would touch on what has remained one of the more intrinsic challenges that are inherent to his approach, namely the combination of prefabricated components in a structural assembly in such a way as to achieve a unified form that while incremental is at once flexible, economic and organic. We can already see this principle at work in the tower-crane assembly of the segmental pre-cast concrete ribs of the shell roofs of the Sydney Opera House, wherein coffered, tile-faced units of up to ten tons in weight were hauled into position and sequentially secured to each other, some two hundred feet in the air.

Utzon's drive towards additive prefabricated form was inspired by traditional Chinese architecture, wherein sculptural roofs with varying pitches are invariably arrived at not through the use of trusses as is common in western building practice but rather by an arrangement of stacked beams stepping up towards the ridge of the roof. While such a system was not literally employed in Sydney, it is clear that the additive precept was analogically present in other aspects of the fabric above all in the bent plywood mullions that were designed to carry the faceted curtain wall extending between the soffit of the shells and the modular paving of the podium. The kind of tectonic challenge latent in this proposition is one that Utzon would confront on many occasions in refining his design for the opera, not only in his derivation of the shell geometry from a 246 foot diameter sphere whereby all the ribs could be assembled from a set of identical components but also in his attempt to develop an equally modular system for the undulating, acoustic plywood ceilings of the auditoria.

The Architecture of Jørn Utzon (continued)

We may recognize a certain tension in Utzon's architecture between, on the one hand, the plastic potential of in-situ reinforced concrete, implied surely in his 1962 proposal for Asger Jørn's Silkeborg Museum and, on the other, his preoccupation with constructing complex geometrical assemblies out of prefabricated concrete components; an ambition that took on a particularly ingenious civic form in his 1962 proposal for the new town center of Farum in Denmark.

If there is one building in Utzon's career that highlights this opposition between in-situ and prefabricated concrete it is his Bagsværd Church completed outside Copenhagen in 1976; a building which aside from this tectonic dialectic, also stands out as his most compelling Danish work following his return from Australia. The referential complexity of this structure is such that it is difficult to account for all the cross-cultural ramifications of its form. An early sketch indicates that the folded-plate roof of the nave was derived from a vision of an open-air congregation, gathered under a cloudy sky; an image of *ecclesia* in the original Greek sense of the term. At the same time, the wide nave and the narrow aisles deliberately recall the type-form of a Nordic stave church, while the undulating folds of the in-situ reinforced concrete roof, spanning 18 meters across the nave, evoke the subliminal image of a suspended pagoda roof, as we find this in an early Utzon sketch of a Chinese temple.

Wood plays a decisively expressive role in this work, not only in terms of the stark, bleached unpainted timber furnishings of the interior, but also with regard to the floor-to-ceiling, unpainted, exterior fenestration, the proportions of which are vaguely evocative of oriental building; once again, surely referring to China. Lastly the blank facades in prefabricated concrete planking and blocks, combined with standard greenhouse glazing, poised above the aisles, jointly produce the gestalt of an agrarian building and it is just this ambience that would enable him to create one of the most compelling religious structures of the last half of the twentieth century. There is also, one might also add, the festive aura evoked by battens of spotlights set on either side of a nave, engendering an atmosphere appropriate to the choral tradition of the Lutheran faith. Other features serve to reinforce this character; among them boldly patterned raiments designed by the architect's daughter, Lin Utzon, and white-metal organ pipes stacked in timber cases. All these elements have surely contributed to the communal acceptance of the church as a spiritual space. Finally one should note the specific way in which this church has been integrated with its suburban site, first, by virtue of its deft sitting in relation to a nearby pond that reinforces, by association, the implicit agrarian character of its form and second, because of a stand of young birch trees that were planted by the architect not only in relation to the main body of the church but also with respect to the adjacent parking lot. At the time of the building's completion these all but imperceptible saplings made one hyper-aware of the way in which architecture is unavoidably projected across time, so that one immediately realizes that Bagsværd will remain incomplete until such time as these trees have attained their full height. One senses that only at this moment will this barn of a building attain its full poetic character; that is to say when it is perceived from a distance through a veil of silver birches.

In-situ versus pre-cast will also play a comparable role in the parliament building erected or the state of Kuwait to Utzon's designs in 1982. Here the additive principle will be applied to the orthogonal compound of the ministerial offices, enclosed as a city-in-miniature by a high perimeter wall. These repetitive patio structures are offset by three monumental shell-concrete canopies, once again designed as a series of folded plates. The first of these, within the compound, faces northeast while the second, of a more elongated proportion, lies just beyond the enclosure and faces northwest towards the sea. Both are supported by pre-cast concrete pylons that taper towards the point of bearing immediately beneath the canopy, where, as Utzon puts it, "You see very clearly what is bearing and what is being carried." With these words he would evoke the time-honored distinction between the load bearing and the load borne, while at the same time alluding to the manner in which the pre-cast spanning elements are post-tensioned in order to achieve the required span. A third continuously undulating canopy covers the east-west route that leads from the main entry to the covered open square facing the ocean, beneath which political power would represent itself to the populace at large. The analogy is that of a tribal leader under a tent, wherein the broader symbolism

The Architecture of Jørn Utzon (continued)

has connotations which are at once both cosmic and institutional, for as Utzon remarked, "...The hall seems to be born by the meeting between the ocean and the building in the same natural way as the surf is born by the meeting of the ocean and the beach...."

From his late fifties onwards Utzon gradually removed himself from everyday practice to focus successively on the two relatively modest houses that, over a twenty-year period, he will build for himself on the island of Mallorca; Can Lis built on a falaise facing the sea in 1971 and Can Feliz, set within dense pine scrub, on which work started around 1990. Both houses are orchestrated so as to provide a sequence of carefully constructed views, while both are, at the same time, conceived as microcosms which transcend the normal concept of a single dwelling to constitute, particularly in the case of Can Lis, a series of independent dwellings clustered together to form a single whole. Built of local sandstone blocks with pre-cast concrete roofs that are capped by local tiles, Can Lis breaks down into a sequence of discrete spaces and courts that are equally disposed to living in the open as to sheltering behind glass. Thus the spatial chain unfolds as an entry; courtyard-cum-stoa, with a kitchen—a sitting room to be followed by a paired bedroom suite and a guest suite. These last are in effect self-contained rooms, lit by thick embrasures of stone; openings that are angled towards the sea and protected by large single sheets of surface mounted plate glass, similar to the glazing method employed by Sigurd Lewerentz in his flower kiosk for the gate of the Malmö Cemetery. As Richard Weston has observed these dwellings testify to Utzon's capacity to work in high and vernacular modes simultaneously; a synthetic drive made easier by the implicit classicism of the Mediterranean domestic tradition; latent above all in the patio house paradigm to which these houses aspire in different ways. As with his habit of spending his spare time in Australia, sailing on the open sea, it is significant that both houses are framed in such a way as to give onto the panorama of a seemingly unspoiled universe.

Utzon belongs to that generation of architects who still believed that the primary responsibility of the profession was not only to meet the building needs of society on an ad hoc, daily basis, but also to evolve generic types and modes of practice that were appropriate to the unprecedented conditions of modern life. He belongs to those whom Sigfried Giedion identified as members of the Third Generation, that is to say those, who, while no longer believing in the manifest destiny of modern architecture to engender a new utopian order, were nonetheless still committed to the notion that architects should attempt to provide models and methods that are appropriate to the conditions of daily life. Hence the somewhat surprising paradigmatic nature of his buildings and hence also his lifelong concern for evolving non-reductive building methods in order to facilitate their realization. This last is surely the prime mover behind his preoccupation with additive architecture; his realization that society not only needs appropriate type-forms but also ways of achieving these forms in an economic manner. While all of this is of the utmost importance, one cannot emphasize enough the hyper-sensitive attempt by his architecture to go beneath the superficial stylistic tropes of different civilizations, to redeem, as it were, certain common structural principles, lying beyond the periodicity of history, so as to recast anew, at a deeper level, the constantly fluctuating play between the species being and the constraints of nature.

© The Hyatt Foundation

For more information, please contact:

Martha Thorne, Executive Director
The Pritzker Architecture Prize
71 South Wacker Drive
Suite 4700
Chicago, Illinois 60608
email: marthathorne@pritzkerprize.com