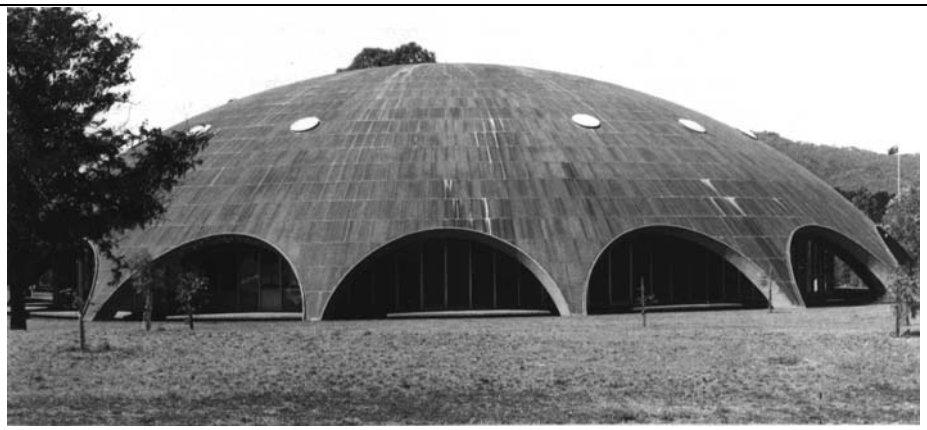
Architectural Heritage:
RAIA REPORT FORMAT

This report is to be the outcome from the data entry.

This report follows the UIA format with some additional fields and full details that will be referred to from UIA.

		Nicholas Goodwin / Eric Martin (of Eric Martin & Associates)
Author Contact Details:		
	Street name & No	10/68 Jardine Street
	Suburb	Kingston
	State	ACT
	Postcode	2604
Date:		16 August 2000
Latest Update:		16 August 2000
Status:		
Project ID:		Becker House, Canberra
Image:		

BECKER HOUSE

NOTE:
This document presents details of heritage buildings developed for Internet searches. An indexing form on the internet allows the on-line submission of this information. This document is intended to let anyone who is willing to participate forward the RAIA information about buildings to be added to the system without using the Web.

Importance of the criteria column lets you to point at the particularly importance of one or several elements of description of the building. You can here indicate (decreasing order A,B,C,D,E, ie International, National, State, Regional, Local) whether an element of description appears to you as decisive in its selection for the index.

Name of the Criteria	**Importance of the criteria**	**Your Building**

Name of the Criteria	Importance of the criteria	Your Building

TABLE n° 1 : DESCRIPTION OF BUILDING / SITE

MODULE 1 : IDENTITY OF THE BUILDING / SITE		
Current name		Becker House (J Ellerton Becker House)
Previous or other name(s)		Academy of Science, "the Dome"
Present owner		Australian Academy of Science
Status of the owner		Independent (but Government funded)
Materials and techniques		Reinforced concrete frame and shell of dome. Clad externally with interlocking copper panels
Description		Becker House is a large radius copper clad dome structure. The base of the dome has 16 regular scalloped openings. The "feet' of the dome sits in a moat that encircles the building. The moat forms a structural ring beam. The water body contained in the moat reflects light into the cloister and building. The building is accessed via bridges across the moat. The dome encloses a three-storey building which accommodates a central conference theatre, two large meeting rooms, an exhibition gallery and office facilities. Storage facility is provided in the basement.
Year of project design		1957
Year of beginning of construction		January 1958
Year of end of construction		April 1959
Initial Design (if differs from description)		
Changes to initial changes		The building fabric has seen little change since construction. A number of the engineering services have been upgraded including: heating and cooling system, lighting, emergency lighting, fire services. The toilet facilities have been upgraded and expanded.
Documentation and References		Gutteridge Haskins and Davey; *"The Australian Academy of Science Conservation Management Plan"*- Volume 1 and 2, June 1999 *The Australian Academy of Science: The first twenty five years"* Australian Academy of Science, Canberra, 1980 Frank Fenner ed; *"The Australian Academy of Science: the first forty years".* Australian Academy of Science, Canberra, 1995 Australia Academy of Science web site; http://www.science.org.au

MODULE 2 : BUILDING / SITE LOCALISATION		
Postal Address: street, n°		Gordon Street
Postal Address: town/suburb		Acton
Postal Address: Postal code		2600
Urban centre/city		Canberra City
Local Government area		Canberra City
Region (State)		Australian Capital Territory
Country		Australia
Regional Context (eg Coastal, urban, rural)		Becker House is located on the western edge of the Civic Precinct of Canberra City, and adjacent to the Australian National University and Screensound Australia (formerly the Institute of Anatomy)
Continent		Australia
Urban context (ex: Port, new town, etc…)		Urban Institutional

MODULE 3 : AUTHORS		
Project Design:	A	
Name, first name, (dates), job, country of origin		Grounds, Romberg and Boyd Melbourne, Australia
Information on the author / the team		Project Design Architect; Roy Grounds Limited Design competition 1956 Commissioned to undertake design and documentation (*GHD 1999)* Supervisor of construction work: C E R De Bomford
Engineering:	B	
Name, first name, (dates), job, country of origin		Structural; W.L Irwin and Associates, Melbourne
Information on the author / the team		The Department of Engineering, University of Melbourne. Professor A J Francis Electrical & Mechanical; W.E Bassett and Associates, Melbourne Acoustics; Bolt, Beranek & Newman Inc. Boston, USA Quantity Surveyors; Rider Hunt and Partners Landscape; Professor L.D Pryor Superintendent of Parks & Gardens Furnishings; Bettine Grounds (*GHD 1999)*
Construction:		
Name, first name, (dates), job, country of origin		Civil and Civic Contractors Pty Ltd Australia
Information on the author / the team		Civil and Civic Contractors Pty Ltd Australia as principal contractor. *(GHD 1999)*
Contracting Authority:		
Name, first name, (dates), job, country of origin		The Australian Academy of Science Canberra, A.C.T. Australia
Information on the author / the team		Sir Mark Oliphant, founding President *(GHD 1999)*

MODULE 4 : TYPOLOGY		
Type (single building/complex)		Single building
Initial use		Conference, research and office facilities
Present use		As initial
Planned use)		Continuation of existing uses
Architectural Style		Mid 20th Century International geometric determinist style or structuralist

MODULE 5 : EVALUATION (Analysis of significance)		
Background	A	In 1956 a Building Design Committee was appointed. The Academy invited several Australian Architects to submit a concept and six firms did so. From these the design by Grounds Romberg & Boyd (Melbourne) was selected as Architects on 1/12/1956.
Technical		
Comments		The dome of Becker house is not a fully rounded form, but flattened, or shallow – a segment of a sphere. It is a self-supporting form and none of the internal walls or perimeter glazed wall structurally touch the dome. The dome shell varies in thickness from 75mm at the top to nearly 600mm at the base. The reinforced concrete dome is 46.3 metres in diameter. At its time it was a large reinforced concrete dome structures by world standards and the largest dome structure in Australia. The concrete dome of Becker House was a significant technical and design achievement for its time, and received national and international recognition
Social		
Comments	C	Becker House has become a landmark building and a significant tourist attraction in Canberra. On completion, it was one of the principal building icons of a modern Canberra. (*AHC 1998)* The building remains a prominent venue for the national and international activities of the Australian Academy of Science The building has direct association with a number of prominent national and international figures in the scientific, political and cultural sectors.
Aesthetic		
Comments	A	Becker House is a rare example of the use of a free standing dome form for a 20th century building The building has been successfully integrated into its surrounding landforms and roadways

		The building demonstrates a clarity of design philosophy in the uncompromising, integrated and consistent architectural style and detailing of the buildings exterior and interior. (GHD 1999) The building has a high level of design integrity, with few alterations having been made to the building fabric Becker House was awarded the Royal Australian Institute of Architects RAIA (NSW Chapter) 1959 J.S Sulman Medal for Architectural design excellence (*AHC 1999)*
Contextual		
Comments	B	Becker House is located within a precinct of buildings which house significant national collections or research establishments. The building has association with the research faculties of the adjacent Australian National University and is adjacent to Screen Sound Australia (formerly the Institute of Anatomy). The building is exemplary of the Australian Academy of Sciences' goal to project a public image of a progressive organisation. It is also representative of the pattern developed in Canberra to house national Institutions in purpose designed buildings of landmark quality
Historical		
Comments	A	Becker House was designed by Sir Roy Grounds, one of the most significant Mid 20th century Australian Architects. It was his first major public commission. The building demonstrates many of the design principles which embody the work of Grounds. *(GHD 1998)* The project was designed in the office of Grounds, Romberg and Boyd, arguably as individuals, the three most influential mid 20th Century Melbourne Architects The building was the first and only building constructed by the Australian Academy of Science The building is associated with numerous significant scientific, political and cultural figures who have been involved in either the Academy, the design and construction of the building, or in its operation over 40 years. These include: ▪ M. L. Oliphant ▪ D. F. Martyn ▪ Clunlies Ross ▪ J.C. Eccles ▪ D. Mawson and ACD Rivett ▪ Founding members of the Academy. The name Becker House and a number of the rooms within the building are now named after significant

		individuals who have made bequests to the Academy. (*AHC 1999)* This includes the Waik Theatre and Jaegar (Fellows) Room. Becker house was the first and probably remains the only freestanding reinforced concrete dome formed public building in Australia *AHC 1999*
Originality		
Comments		Becker House is one of the largest reinforced concrete, dome formed buildings in Australia and the world. Becker House is the only dome formed public building in Canberra. It is also one of the few buildings in Canberra to utilise interlocking flat copper roof sheeting The structure of the building was a significant design achievement for its time. The dome form was a structural solution to a functional problem of creating a shape which created a pleasant atmosphere for an auditorium (*AHC 1998)* The original furnishings of the building (most of which remain), were designed for the building

AWARDS FOR EXCELLENCE		
		1959 J.S. Sulman medal, Royal Australian institute of Architects, NSW Chapter 1961 Canberra Medallion, Royal Australian Institute of Architects, ACT Chapter. It is the only ACT building to have one the two awards (*AHC 1999)* 2000 RAIA (ACT Chapter) 25 year award.

TABLE n° 2: STATE OF BUILDING / SITE

MODULE 1 : ANALYSIS OF CURRENT STATE		
Building Condition		Generally in fair to good condition. A complete refurbishment of the building is currently being planned
Evaluation of danger (decreasing order A,B,C,D,E)	E	
Nature of danger		
Comments		Current water leaks and other maintenance issues should be rectified in the restoration and refurbishment works currently being documented

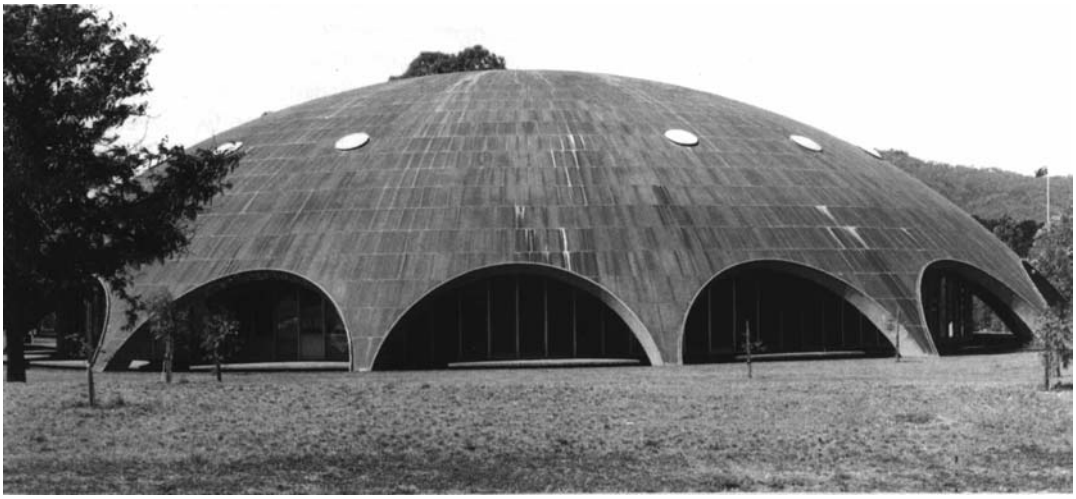
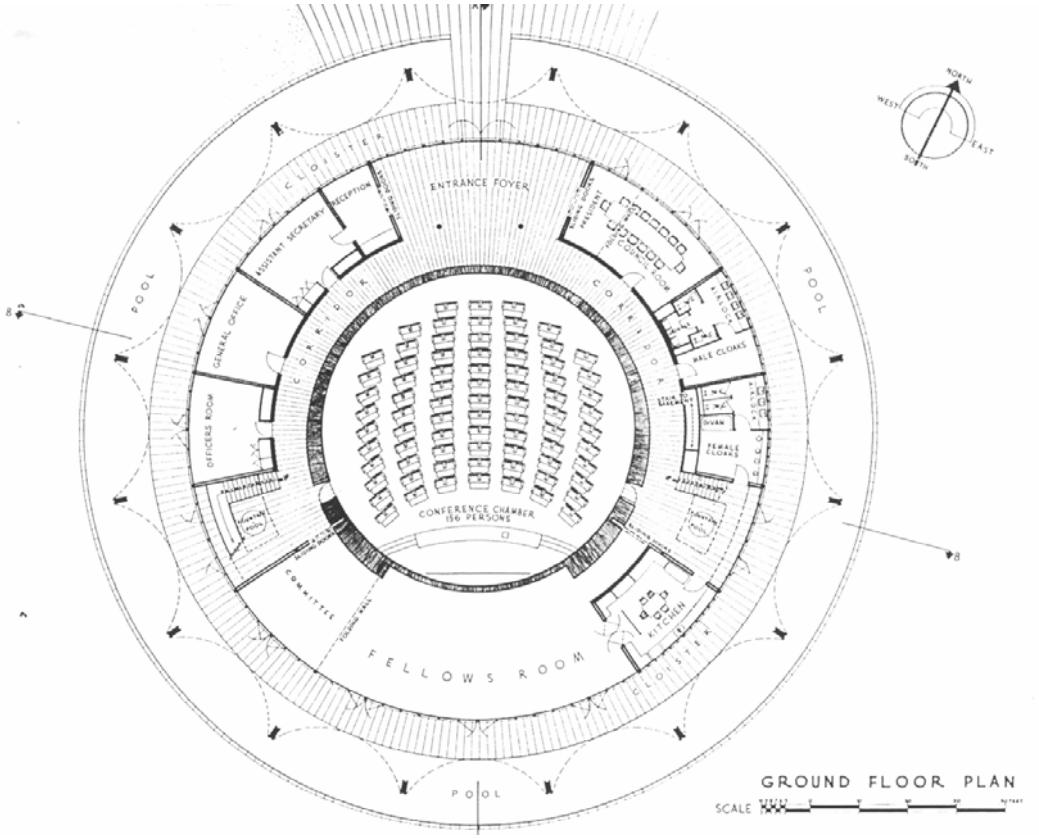
MODULE 2 : PROTECTION		
Current Heritage Listing		**Australian Government Heritage Register (Register of the National Estate)**
Administrative level of protection (Statutory or Non-Statutory)		Statutory
Authority / Institution providing listing		Australian Heritage Commission
Registration Reference		Register of the National Estate - registered 26/10/99. Database No 019835, File no 8/01/000/0453
Planned restoration		Refurbishment/ restoration program to commence soon for the whole building
Current Heritage Listing		**State Government Heritage Register** A.C.T Heritage Office
Administrative level of protection (Statutory or Non-Statutory)		
Authority / Institution providing listing		Interim Heritage Places Register of the ACT Entered 26/6/98
Registration Reference		
Planned restoration		Refurbishment/ restoration program to commence soon for the whole building
Current Heritage Listing		**Listed in the RAIA National Register of Significant Twentieth Century Architecture**
Administrative level of protection (Statutory or Non-Statutory)		Non-Statutory
Authority / Institution providing listing		Royal Australian Institute of Architects
Registration Reference		(TBA)
Planned restoration		(TBA)

TABLE n° 3 : CHARACTERISATION OF THE BUILDING / SITE
(Significance of the building under the Stated Criteria)

Categories of Criteria		
MODULE 1 : PERIOD OF DESIGN / CONSTRUCTION		
Outstanding national importance in demonstrating the principal characteristics of a particular class or period of design.	A	Becker House is a unique building effectively synthesising a simple plan and three dimensional form into a building which blends comfortably into its setting The structural design of the building pushed the limits of knowledge at its time Becker House is associated with the post world war 2 development of the Australian scientific community at an international level *AHC citation 1998* Whilst quite a radical building of its time, it was well received by the community
MODULE 2 : FORMAL ARCHITECTURAL VALUE		
Outstanding national importance in exhibiting particular aesthetic characteristics.	C	The building is an excellent example of the mid 20th century geometric determinist style. The building employs a simple and elegant form to enclose a series of public and private spaces. The form of the building has been cleverly used to resolve climatic control of the perimeter glazed wall. The scalloped form of the base of the roof/wall has been used as a stylistic device to form a cloistered walkway around the building.
MODULE 3 : RELATION TO THE LOCATION		
Outstanding national importance in establishing a high degree of creative achievement.	C	Becker House is a simple yet sophisticated response to the design brief. It is a timeless building, whose strength is in its simplicity of form and detail and its synthesis with the surrounding landscape.
MODULE 4 : MONUMENTAL OR SYMBOLICAL SIGNIFICANCE		
Having outstanding monumental and symbolic importance to the development of architecture and the history of architecture.	B	Becker House has since completion been a landmark building in Canberra. Its social acceptance is in part demonstrated it being simply referred to as “the Dome”. The building was the first and remains one of the significant public works of the notable mid 20th century Australian Architect Sir Roy Grounds.
MODULE 5 : ATYPICITY		
Having a special association with the life or works of an architect of outstanding importance to our history.	A	The building is a rare example of its style in Canberra and nationally. The design demonstrates a high level of creativity in its concept, and a high level of integrity in the execution of the design concept The integrity of the building in the high level of

		original finishes and materials retained, contribute to its significance
MODULE 6 : CONSTRUCTION / STRUCTURE		
Outstanding national importance in demonstrating a high degree of technical achievement of a particular period.	A	Becker House was one of the largest free standing reinforced concrete dome form buildings in the world at its time. At the time of its construction it represented a significant technical achievement in reinforced concrete shell design and the arches reinforce the structural forces as they transfer the ground construction.

STATEMENT OF SIGNIFICANCE		
In which areas is the building a forerunner or exemplary		Becker House is an excellent example of structuralist Architecture, which has remained an icon of Canberra from the time it was designed. Becker House is Significant for its association with the post – war development of the Australian scientific community at an international level. It is directly related to significant Australian Scientists who were members of the Academy or held office on its Board. (*AHC 1998)* Becker House was designed by prominent Architect Sir Roy Grounds a Principal of the noted Architectural practice of Grounds, Romberg and Boyd. Sir Roy Grouds was awarded the Royal Australian Institute of Archiects (RAIA) Gold Medal in 1968 and Robin Boyd the RAIA Gold Medal in 1969. Its design represents Grounds' design philosophy, reflected in the buildings form, planning and structural integrity, and in Grounds' response to the environment (*AHC 1998)* The construction of the reinforced concrete dome was a significant technical achievement of its time (*AHC 1998)* In diameter, the dome of the Academy was large bye world standards and larger than any dome previously built in Australia. Upon completion, Becker House became a symbol of modern Canberra. Since then it has developed into an important landmark and tourist destination in the city.

IMAGE and PLAN	
Image:	 Becker House, Canberra from *Australian Architecture Since 1960, 2nd Edition*, 1990 Jennifer Taylor, Page 14
Plan	 Becker House, Canberra, Ground Floor Plan from *The Australian Academy of Science: Conservation Management Plan and Scope of Works, Volume 2 – History*, 1999