



AUSTRALIAN NATIONAL
BOTANIC GARDENS

Jury Report

*limited (Select) Project Competition
for the Design of*

THE IAN POTTER
National Conservatory
in the Australian National Botanic Gardens, Canberra

Jury Report

In April 2016, the Australian National Botanic Gardens (the Gardens) invited expressions of interest from architects and their multidisciplinary teams for a Limited (select) Project Competition for the design of *The Ian Potter National Conservatory* within the Gardens in Canberra.

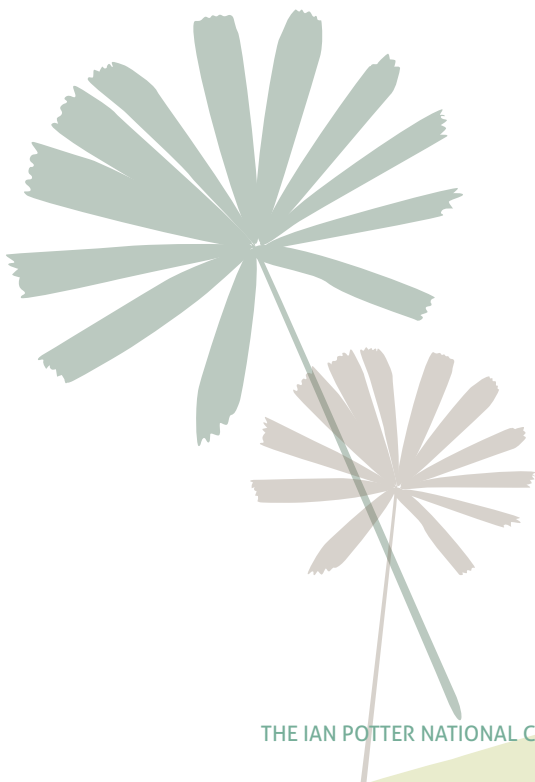
The Conservatory will be a national and international showcase for tropical Australian native flora. It will define the Gardens as the leading conservator of such plants contributing to its mission *to inspire, inform and connect people to the Australian flora.*

The Gardens aspirations for the Conservatory are that it will:

- » Foster and inspire visitors to discover and appreciate unique and seldom seen Australian tropical plants including large trees
- » Interpret and explore the rich story of Australia's tropical flora and diverse species
- » Stimulate education and pioneering research into tropical flora that deserve greater recognition as distinctive to Australia
- » Contribute to the conservation of significant Australian tropical plants particularly those that are rare or threatened and need protection
- » Complete the display jigsaw of Australian flora publicly accessible at the Gardens
- » Expand the cultivation and distribution of rare and significant northern flora to other botanic institutions
- » Encourage public participation in the development and programs of the Australian National Botanic Gardens.

The Gardens are seeking a Conservatory that will demonstrate excellence in architecture and visitor experience to inspire and delight and establish a landmark brand for the Gardens —

a building that will evoke a sense of drama and mystery and be visible from different aspects within the Gardens a 'must see' visitor destination in Canberra.



The Design Brief

Entrants were required to develop a building that responded to a complex design brief in a unique and sensitive setting. Aspirations for the Conservatory were supported by descriptions of the exhibition thematic intent, anticipated visitor experience, desired architectural identity and key spatial and technical requirements.

The Conservatory building and its setting are required to demonstrate:

- » Excellence in architecture and interpretative exhibition design
- » Best practice in sustainable design and building
- » Effective, practical and affordable environmental control systems
- » Flexibility and simplicity in display change and technical capability
- » A positive, legible and exciting visitor experience.

The building and interiors should present as:

- » A 'house' of striking plantings
- » Translucent and alive
- » Romantic and wondrous
- » In harmony with the outdoor setting and natural environment.

Selected Entrants

From the 39 expressions of interest received from across Australia, five architects were invited to participate as 'entrants' in the select competition and prepare design concepts for the consideration of the Jury.

The entrants were:

- » **Grimshaw Architects** – lead architect Andrew Perez
- » **BVN** – lead architect James Grose
- » **Sean Godsell Architects** – lead architect Sean Godsell
- » **Terroir** – lead architect Gerard Reinmuth
- » **CHROFI** – lead architect John Choi

Entries were lodged on 7 July 2016. On 13 July each entrant made a presentation to the Jury and had the opportunity to respond to questions particular to their proposals.

The Gardens greatly appreciates the quality of the design proposals submitted and the commitment of the entrants to this significant competition.

Jury Observations

The Jury thanks all entrants for their outstanding submissions and stimulating presentations.

Each entrant interpreted the concept of 'Conservatory' in an imaginative and considered way and contributed to the design knowledge base of this elusive and technically demanding architectural typology.

Each entrant addressed the site and its setting with sensitivity, mindful of the value of the building to the future planning and development of the Gardens. All of the designs demonstrated visitor experience and spatial constructs that extended the potential of the Conservatory's thematic display intent.

The Jury observed that all of the design proposals submitted are conceptual and that all would require development in collaboration with the Gardens, to realise and deliver convincingly the stated aspirations for the Conservatory.

In particular, the Jury notes that all of the environmental systems proposed, though thoughtful and considered, present challenges that would demand detailed modeling to achieve the performance necessary to sustain healthy plant conditions.

The Jury also notes that while most entrants estimated that the project budget could be achieved, judicious and sympathetic value management will be critical during design development to assure the project aspirations are matched and that the design outcome is truly excellent.

The Jury commends all of the architects and their teams for the way in which they have explored and translated the narrative of the Gardens in their design concepts for the Conservatory. Their proposals demonstrate the talent of Australian designers and the value of design competitions in fostering innovative architecture of distinction.

Jury Deliberations and Decision

After spirited discussion and deliberation the Jury was drawn to two proposals each of which demonstrated, in very different ways, the potential of the Conservatory as a showcase of tropical Australian native flora and a rich visitor experience.

The Jury selected the proposal by **CHROFI as the winning entry** and exercised its discretion to select the proposal by **BVN as second provisional winner**.

The Winning Design



CHROFI with ATELIER 10, INHABIT, SDA, MCGREGOR COXALL, TOKO

» <http://chrofi.com/>

This is an exceptional proposal that draws upon yet sweeps aside conventional paradigms of a conservatory. The result is a magical new architectural expression that intrigues at first glimpse and inspires on exploration.

The architects have posed the question *How can conservatories become unique, memorable experiences in the age of climate change?* and challenged themselves, with considerable success, to design a conservatory that is *an architecture of the senses*.

Their response is for a simple and striking 'symbolic container' more closely resembling an enigmatic 'keeper' of treasures within the gardens than a traditional exotic greenhouse.

Embedded in the earth, the CHROFI conservatory 'container' rises up in a cubic cathedral form to greet the sky and the light, drawing the visitor through a series of subtle internal vertical spaces that emulate the tropical forest habitat.

The CHROFI team has employed five primary directives within their design proposal — contain a tropical home for the plants; sink into the thermal mass of the earth; carve out a diversity of spatial experiences; curate the daylight; and engage an efficient and energy passive skin that is *ephemeral, mysterious and functional*. Each of these directions works deftly in unison to deliver an architecture of volume, mass and light to maximise internal space, control building footprint, condition the plant environment and deliver an immersive visitor experience.



Considerable attention has been given to the building envelope as a high performing environmental system for the plants. Designed as a 'giant esky', the layered walls establish an insulated skin using solar energy to pre-warm air, store heat and stabilise internal temperature. A polycarbonate profiled wall panel clads the outside of the building and together with the internal hollowcore concrete panel sandwiches a transpiring 'solar wall' and insulated wall panel. This sophisticated yet simple approach gives confidence to the Jury that the building could perform as intended.

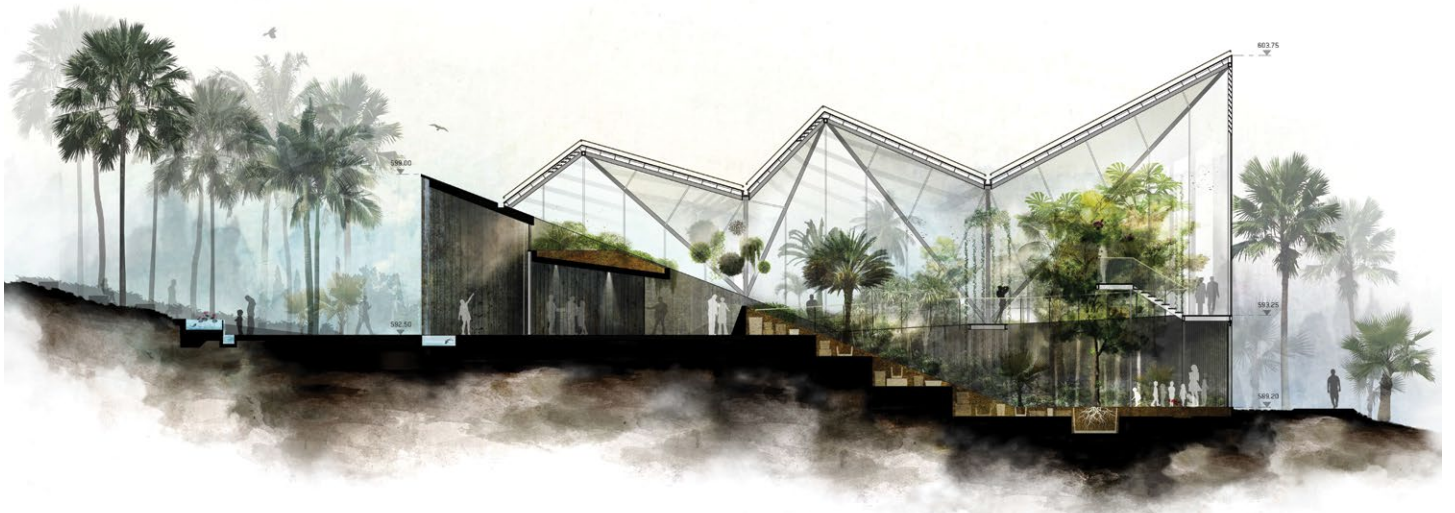
The Jury was impressed by the crafted relationship between the architectural form, identity and choreographed displays. From the outside the building presents as a translucent box of varying transparency that entices the visitor toward it in the manner of a landmark object sculpting out space. On arrival a glint of green slices through the form providing a tantalising hint of the verdant splendour of plants within. Entering at ground level the visitor is transported into a secret and fertile tropical world of exhibits that ultimately winds upwards through the internal void towards the sky-lit roof. At night the container glows softly as a mesmerising reminder of the rich story of all of Australia's diverse species exhibited throughout the gardens.

The jury notes that the design is conceptual and that fundamental to its success — or that of any of the proposals submitted — will be sustaining the growing plant life within as envisaged in the Design Brief. To assure its success, the Jury recommends that in the first instance and at the earliest possible time, the Gardens engages CHROFI and their team to develop their design concept to validate the plant conditions and display potential.

The Jury is confident that in collaboration with the Gardens, the CHROFI concept design will emerge as a Conservatory of national botanic repute and pride, as an exceptional visitor experience and as an architecture of excellence and international merit.



Second Provisional Winner



BVN with ARUP, 360°, FRD

» <http://www.bvn.com.au/>

A strong execution of conservatory glasshouse design, this proposal leverages with great skill and spatial dexterity the master planning ambitions of the Gardens, the micro site conditions and the complex design program.

Confidently yet subtly spanning the site, the building presents as a series of tilted and elegant terraces — *planted planes* — securely anchored to the ground and reflected and captured in a soaring folded crystalline canopy.

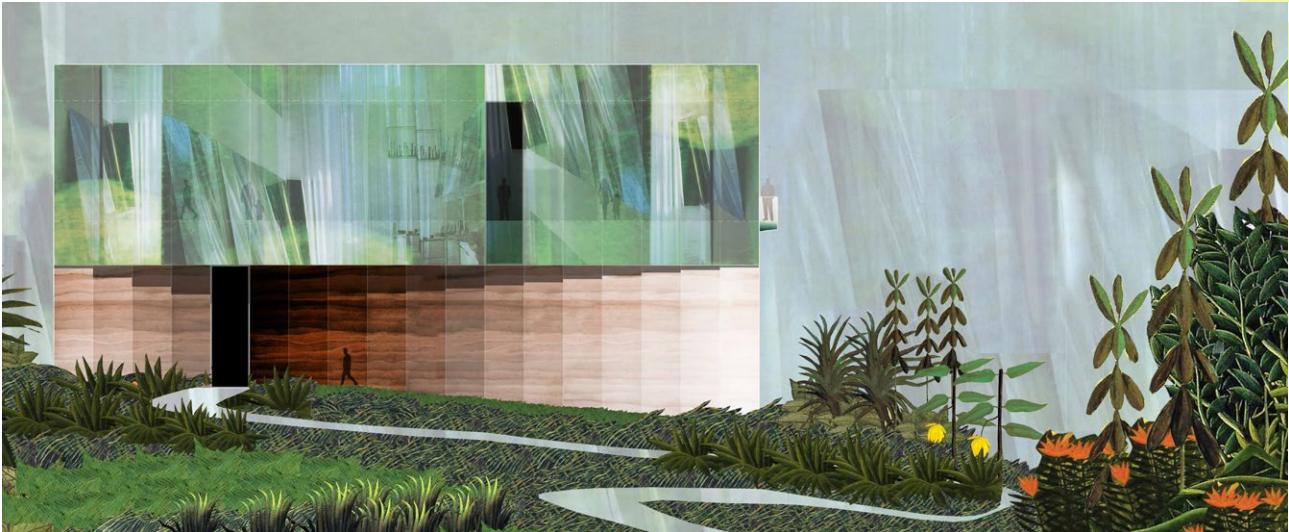
The integrated spatial experience and display proposal is convincing and seductive. Diverse exhibition opportunities and vantage points layer the legible visitor circuit of orchestrated displays *to create a memorable range of experiences within the comparatively small footprint of the Conservatory.*

The materiality of the composition embraces the qualities of precast concrete walls at podium levels, selected to weather and age over time, together with hardwood charred linings to the entry, both paying homage to the naturalistic bush character of the gardens. The transition from base to glazed canopy is handled with ease and poise to make a powerful statement in the landscape.

Designed to deliver a sustainable internal environment, the proposal is predicated on low energy systems providing a *pathway to carbon neutral performance.*

The Jury recognises the inherent design and exhibition qualities of the concept proposed and agreed that, with development, it could deliver the aspirations of the Gardens and become an exemplar of botanical garden exhibition and architecture.

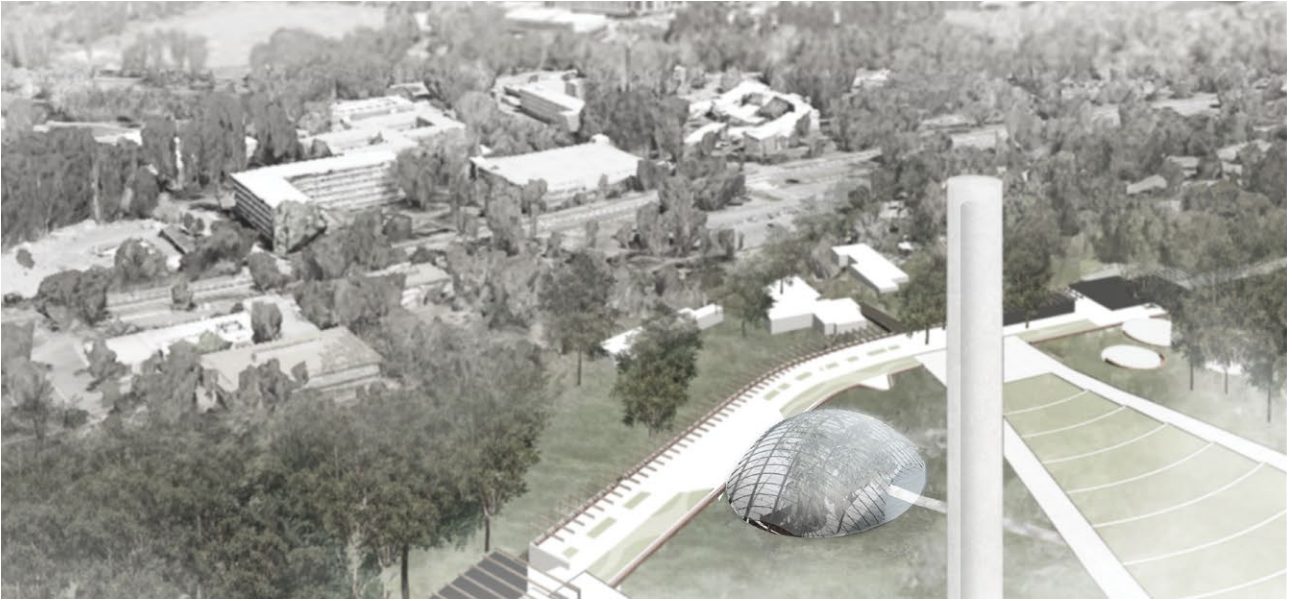
The Jury makes the following comments on the other design proposals:



TERROIR with ASPECT, THYLACINE, CF MOELLER, ARUP, STEENSEN VARMING, SALLY HIRST, JANET LAWRENCE

» <http://www.terroir.com.au/projects/articles/ian-potter-nat-conservatory>

A beguiling proposal that seeks seamlessly to bind art, architecture, science and discovery to engage the senses and heighten the visitor desire to explore and their power to observe — *an adventure which scientists have enjoyed for generations*. The design concept derives from an intelligent synthesis of the design program relative to building type, conceptions of nature, scale, setting and *environment machines*. The proposal responds sensitively to the site and establishes orientation and a display relationship that seeks *monumental intimacy* in the scale and arrangement of display spaces. The architecture presents as an experiential and experimental glass arthouse that builds off the traditional taxonomy of plant exhibits and transforms them into a palette of colour and form to intrigue and delight. Primarily linear horizontal and vertical glass building elements toy with the light to create a potent and evocative identity alive with drama and vitality.



SEAN GODSELL ARCHITECTS with MCGREGOR COXALL,
EMERYSTUDIO, WSP STRUCTURES, INHABIT, UMOW LAI,
PLAN COST AUSTRALIA

» <http://www.seangodsell.com/>

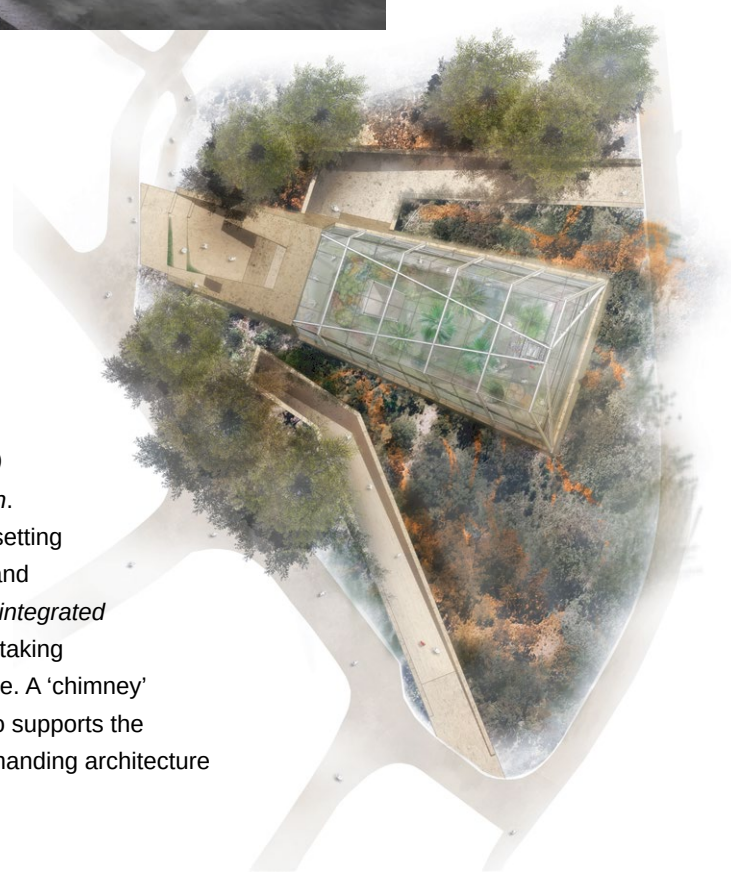
Place making and spatial sequence underscores this proposal to establish a meaningful framework for development of the gardens and the 'right' starting point to define the visitor experience and prospect of appreciation. The scheme describes an *armature* composed of primary path, hold points and forecourts that deliver positive navigation and expand the potential of the visitor journey of discovery through the Gardens. An *obelisk* marks the key site vantage point giving visual access to the city beyond. The Conservatory dome is embedded in the site as a pure geometric form derived from a *circular plan sliced obliquely through the slope of the site (a) lens above the ground*. Internally, the tree canopy is unveiled against a waterfall backdrop as the visitor descends from bridge to rainforest floor and exhibition tunnel with 'short-cut' options and the chance to meander along the way.



GRIMSHAW with MCGREGOR COXALL,
BOLLINGER GROHMANN, HALEY SHARPE
DESIGN, DESIGNER GARDEN COMPANY

» <http://grimshaw-architects.com/>

An immersive journey of sensation, spectacle and marvel designed to deliver an experience equivalent to going down the *botanical rabbit hole*. The design conceptually seeks to remove the visitor from the ordinary world to one of wonder and to return them with the *souvenir (of) knowing you will be forever changed and be compelled to return*. The journey is imaginatively stage-managed commencing in a setting programed for annual burning to reference Aboriginal tradition and natural re-growth through to a dramatic interior designed as *an integrated aesthetic... narrative*. The building rests on a plinth of concrete taking confident advantage of the topography and orientation of the site. A 'chimney' service tower fixes the building at its highest point and serves to support the lightweight, highly transparent glazed roof. The result is a commanding architecture of trapezoidal form and substance.



The Competition Jury

The honorary competition Jury comprised:

- » Prof. Richard Johnson AO MBE LFRAIA – Founding Director, Johnson Pilton Walker (Chair)
- » Wendy Lewin FRAIA – Principal, Wendy Lewin Architect
- » Prof. Graham Durant AM – Director, Questacon, Canberra
- » Malcolm Snow, FAIA – Chief Executive, National Capital Authority
- » Dr Andrew Young – Director National Research Collections Australia, CSIRO
- » Geoff Bailey – Executive Director, Sydney Harbour Federation Trust
- » Ray Young – Engineer, former principal, Young Consulting Engineers
- » Dr Judy West AO – Executive Director, Australian National Botanic Gardens



Professor Richard Johnson AO MBE LFRAIA
On behalf of the Jury

Professional Endorsement

The competition was endorsed by the Australian Institute of Architects and the Australian Institute of Landscape Architects.

Competition Professional Adviser

Annabelle Pegrum AM LFRAIA was the Competition Professional Adviser. Agnieszka Liso supported her in the development and conduct of the competition.

The images used in this publication are taken from the competition entries:

Pages 5–6: CHROFI
Page 7: BVN
Page 8: Terroir
Page 9: Sean Godsell Architects
Page 10: Grimshaw Architects



Australian Government

Parks Australia



Australian National Botanic Gardens

www.anbg.gov.au/gardens/