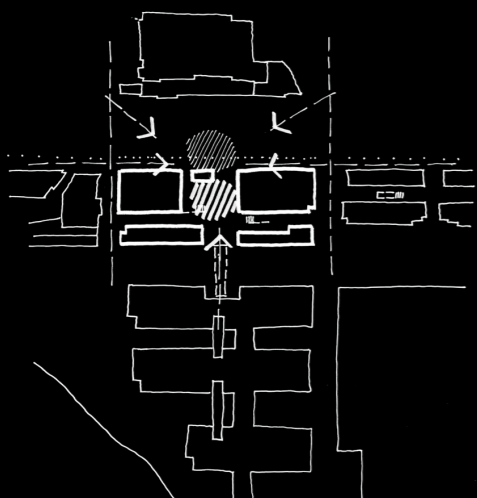


# 1.1 BUILT PEDAGOGY

# VISIBILITY



*"In 1994 when we were designing the Hammond residence which was in a remote location, we were advised we would need 22 solar panels to meet energy needs. Our clients could only afford two panels and so sold the majority of their appliances. The two panels proved more than enough + our clients had to buy new appliances to 'use up' the stored energy. The lesson is that an understanding of energy and operational requirements is necessary for all involved in creating built environments."*

*Lindsay Clare - Director Architectus*

By learning about the building's operation through experience + monitoring as part of their studies all students can learn how a building works (passively, technically and socially), Year 1 about light and ventilation, Year 2 about water, Year 3 etc..... the building as a 'learning laboratory' - fostering engagement and ownership and presenting the opportunity to deliver an experiential landmark for the university and the community.

The purpose of the new building is to create an environment where people want to be, and where they want to learn - about designing, planning and making - within spaces that promote engagement, research exploration, collaboration, connection, testing and discovery.

Staff, students and community alike can participate and contribute when spaces create opportunities for visibility, transparency and accessibility - Alexander's 'marketplace for learning' where endeavour and excellence are 'on show'.

Architectus understands the significance of the built environment as a catalyst for highly interactive, collaborative and sustainable education environments. Architectus understands the importance of high quality assets to attract students, staff and business partners, and the need to promote cross disciplinary discourse and integrated scholarship between architecture, building, urban design and planning. Architectus directors have published extensive research about the influence of built environment on learning outcomes.

Spaces can be open, transparent and visible while recognizing the need for privacy and containment when appropriate. Diverse learning models, activities, world communication, cyber classrooms, activity and liveliness can be facilitated by adaptable exhibition / function spaces that also create a sense of fluidity between inside and outside.

The environment will enable:

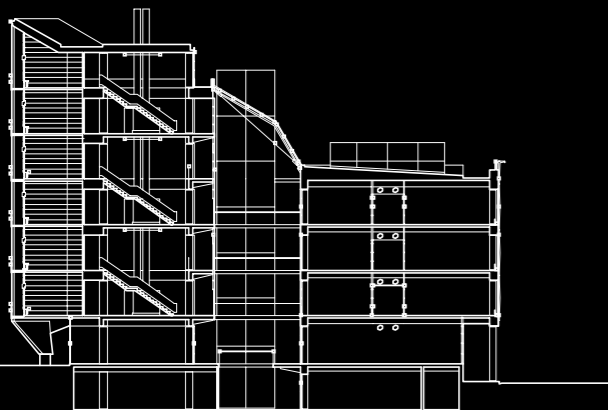
- Accessibility
- Collaboration
- Flexibility
- Interaction and socialising
- Openness

University of the Sunshine Coast Chancellery - Concept Plan and covered 'market place' - with visual connections to central landscape and library beyond



Waitakere Central Library and UNITEC Facilities - opening night - connecting library, public square and main street

# 1.2 THE ACADEMIC ENVIRONMENT



University of Canterbury - showing relationship between Academic offices, double height work studios, circulation and teaching laboratories



University of the Sunshine Coast Chancellery - adaptable edges

## DESIRABILITY

*“When colleges and universities build, they didn’t just add to their inventories of floor space. They reveal - sometimes unwittingly - their prevailing values, aspirations and preoccupations” .*

*William Mitchell (2007), Imagining MIT, P. vi, MIT Press*

The new building can create a 'hub'; a living, learning and research environment to attract the best staff and students and maintain University of Melbourne's Growing Esteem strategy and international ranking. These values are aligned with a new type of architecture which responds to the similar needs of many large organizations (corporate included) to encourage internal and external integration and collaboration. In attracting the best students and staff, the workplace needs to be a stimulating environment that contributes not only to learning, but also to productivity and job satisfaction.

These environments are characterized by:

- collaborative learn/work spaces that support flat management, cooperation and a team approach at all levels
- place that is distinguished as both nurturing and memorable
- a broad variety of amenities - human and friendly spaces which attract and retain the best employees, and which understand the concept of the workplace as an extension of the homeplace
- healthy workplaces which are environmentally friendly, and which allow for individual control of local conditions
- flexible, efficient and functional spaces which allow for both local flexible work patterns and which allow for potential radical future change
- IT enabled work space to support flexibility and connectivity
- superior environmental conditions - light, fresh air, thermal comfort, wellbeing
- space that is differentiated as 'place'

The new building can be an important hub within the campus – connected to the life of the University and to the history of the place, through built form, landscape and urban design.



University of the Sunshine Coast Chancellery - relationships between Chancellery, teaching and circulation spaces over looking 'market square' and sheltered outdoor learning areas

# 1.3 THE DESIGN STUDIO

# ACCESSIBILITY



Design studio with service and support spaces.



Design studio interactive workshop



Collaborative learning and engagement in the studio

*“All students can work in the studio and can monitor the environmental quality of that space - by operating the building as an extension of their studio work. They could produce a building user guide based on these experiences” .*

*Peter Slifirski - Director Architectus*

The design studio can be a place where people like to be; where people like to work and learn, be inspired, stimulated and discover the power of collaboration and interaction.

An open, transparent design will facilitate the creation of a ‘visible laboratory’ where the design studio can act as preparation for a professional life, where studio teams can be aware of other teams, setting up opportunities for collaboration, where display and exhibition are a natural occurrence.

The design studio directly affects productivity and wellbeing. Well designed support spaces (library, archive, storage, hardware and software, model making, printing etc) enable the studio to be flexible and adaptable.

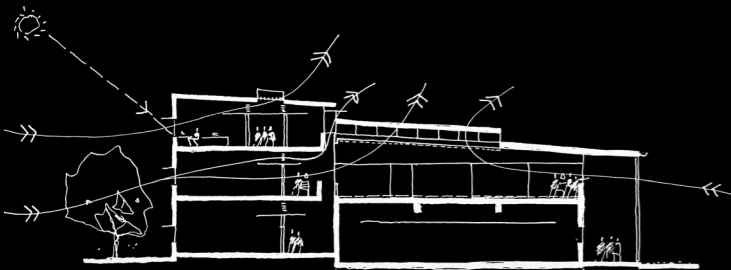
The planning of the studio can be open-ended – allowing for multiple paths of movement and multiple configurations of workspaces and circulation patterns, facilitating the opportunity to adjust workspaces and groupings around projects and research.

Public and corporate interface can be encouraged in these spaces also. Exhibition and event space, meeting space, studio and open air learning can facilitate direct and indirect participation and interaction to foster an open work culture:

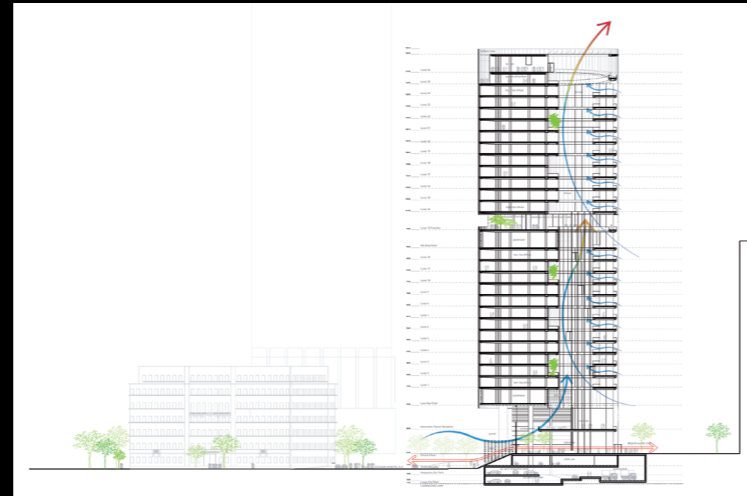
- Studio as a place for discourse, exploration and research
- Studio as exhibition and display
- Studio as stage
- Studio as preparation for professional life
- Studio conveying the ethos of the faculty

# 1.4 THE LIVING BUILDING

# SUSTAINABILITY



University of the Sunshine Coast Chancellery concept section - showing combination of natural / mixed mode ventilation systems



1 Bligh Street - commercial tower concept section - designed to achieve first 6-Star Green rating for a high rise project - under construction (with Ingenhoven Architects)

A 'living building' can be an inspiring model.

The new building can demonstrate University of Melbourne's commitment and leadership on environmental design by:

- inherent design features that minimise its environmental footprint
- reduced energy demand through innovative solutions as part of the architecture
- inherent adaptability (future-proofing)

Key design features to reduce both energy and water consumption can be integrated into the architecture as multi tasking elements, making the building inherently efficient. The reduced demands can then be met by appropriate technologies, planned for efficiency and allocated to match the buildings needs. To be truly sustainable, initiatives have to be simple, achievable, cost effective and user friendly.

A climate responsive design approach will enhance the building's comfort performance and achieve enduring, low energy demands. This approach considers the composite effects of the site, the building and the landscape.

Environmental design is not a new idea to Architectus. Here are just some of our achievements in making great living and working environments:

**2008 AIA Queensland State Award for environmental design** for the USC Chancellery, a 4000 m<sup>2</sup> building based on passive design principles. 14 classrooms, 50 offices and a 250 seat lecture theatre incorporate mixed mode offering a choice of natural ventilation and supplementary air conditioning for peak conditions. Natural daylighting is available to every office and teaching space. **No 1 Bligh Street**, designed to be **Sydney's first 6-Star Green Star high rise** building, including a fully shaded double skin façade. July 2008 Architectus facilitated the **Retrofitting Cities for Climate Change** think tank. The ideas and directions generated during the think tank are published on our website [http://architectus.co.nz/project\\_sheets/Climate%20Change%20Newsletter.pdf](http://architectus.co.nz/project_sheets/Climate%20Change%20Newsletter.pdf) **Design in the Age of Climate Change** – a workshop facilitated by Architectus in 2007 that looked at density, housing and transport issues. The outcomes are published on our website [http://www.architectus.co.nz/project\\_sheets/Design%20in%20the%20Age%20of%20Climate%20Change.pdf](http://www.architectus.co.nz/project_sheets/Design%20in%20the%20Age%20of%20Climate%20Change.pdf) **Wesley house** 5,500m<sup>2</sup> commercial building for Wesley Mission designed to be 5-star Green Star with the inclusion of chilled beam air cooling, optimal day lighting, low emissions materials, quality planning and best practice construction. Architectus Director Peter St Clair is currently completing a **Masters Programme in Sustainable Development** at the University of New South Wales, with a focus on corporate sustainability and the development of design guidelines for low energy buildings in resource intensive markets including the UAE and China. **RAIA National Environment Award 1996** for the Cotton Tree pilot housing project **10 Shades of Green Exhibition** - The Cotton Tree pilot housing project was included in this exhibition along with nine others chosen world wide to demonstrate environmental sensitivity with architectural excellence. The exhibition has been travelling since 2000 from **New York** to Austin, Washington, Houston, Denver, Portland, San Francisco, Salt Lake City, Orange County, Boston, Las Vegas, St Louis, Louisville, and Maine, and featured Peter Buchanan's book with the foreword by Kenneth Frampton, published by the Architectural League of New York. **University of Queensland – Case Study** Clare Residence (Robin Boyd Award 1992) was the subject of a measured case study undertaken by Dr Richard Hyde demonstrating the effectiveness of the design in both summer and winter conditions and the use of light weight construction. **University of Queensland - Case Study** - The Cotton Tree pilot housing project was the subject of a measured case study undertaken by Dr Richard Hyde. This study demonstrated the effectiveness of the design in both summer and winter conditions and the urban design/landscape response effectively reduced the heat island effect. **Climate Responsive Design: A Study of Buildings in Moderate and Humid Climates** Dr Richard Hyde featured the Clare Residence as a key study in his publication (2000). **Sunshine Coast Environment Council Award** - In 1995 Lindsay Clare received the Environment Award from the Sunshine Coast Environment Council for the contribution to the built environment of the Sunshine Coast region. **Hammond Residence** Robin Boyd Award 1995 - Described as an 'eco cottage' by Michael Keniger in Architecture Australia, this residence achieves a high degree of self sufficiency with passive solar design, solar power, water collection, waste management, and effective use of resources. **Expert Evidence** – Sick Building Syndrome - In 2000 Lindsay and Kerry Clare were called to provide expert evidence to the NSW Government Standing Committee on Public Works with regard to the relationship of environmental design and the avoidance of Sick Building Syndrome. National Environment Centre -The **National Environment Centre** is a unique development showcasing TAFE courses in environmental sciences and sustainable agriculture. The building incorporates many ESD initiatives including ground source heating and cooling, rammed earth walls, evaporating cooling effects of ponds and misting systems in the landscape, optimized cross ventilation, natural daylighting, recycling, embodied energy, thermal mass and waste management. **Greenhouse Neutral Conference Centre** - As Design Directors for the NSW Government Architect Lindsay and Kerry Clare were commissioned to produce a design to test the feasibility of constructing and operating a greenhouse neutral conference centre in the Cumberland State Forest. The study substantiated that construction and operation would be greenhouse neutral over a period of 20 years. **Gallery of Modern Art, Queensland** - This project was won in international competition from over 170 entries and completed in 2006. The environmental conditions and requirements for a contemporary art gallery have been rigorously investigated and implemented in the GoMA project. Issues addressed include temperature and humidity, thermal comfort and internal conditions, artificial and natural lighting, air pollution and pests, salt, indoor air [pollutants, pollutant from appliances, energy, building services, lighting design, water cycle and waste water, building materials, indoor environmental quality, waste management, transport, shading ,embodied energy, insulation and air distribution. **No 1 Fire Brigade**, Castlereagh St Sydney - Extensions to the 1887 heritage Fire Station required a new building design to operate effectively with natural light and ventilation within the inner city location. To achieve these goals a glazed double skin front façade was devised. This acted as 4 separate chimneys that drew air in and distributed it through the interior spaces. **Selected Publications:** A Deeper Shade of Green, Johann Bernhardt, 2008, Balasoglou Books, New Zealand – Auckland College of Education, Canterbury University Mathematics, Statistics and Computer Sciences Building, Waitakere Civic Centre. Daylighting for Sustainable Design, Mary Guzowski, 1999, McGraw Hill USA – Clare Residence, Rainbow Shores. Eco, Elizabeth Wilhide, 2002, Quadrille Publishing, London – Hammond Residence. Warm House Cool House, Nick Hollo, 1995, Choice Books, Australia – Rainbow Shores, Eckett residence, Fraser Residence. Stay Cool, Holger Koch-Neilsen, 2002, James and James, London – Rainbow Shores. Border Control: Environmentally Sustainable Design, Lindsay Johnston, 2002, Architectural Review Australia. Crash Course in Sustainable Design, environmental & cultural context. **Mathematics Statistics and Computer Science Building** – Post-occupancy Review of Buildings and their Engineering (**PROBE**) study conducted by Christopher Kendal under the supervision of Dr George Baird after 4 years of occupation revealed the building provides a comfortable environment without relying solely on conventional mechanical HVAC systems. Director Peter St Clair author of **BEDP Environment Design Guide** paper "Low-Energy Design in the United Arab Emirates" 2009.



Hammond Residence - autonomous house with 2 solar collectors



University of the Sunshine Coast Chancellery - mixed mode ventilation systems / reverse masonry veneer construction



University of the Sunshine Coast Recreation Building - natural ventilation and lighting



No 1 Fire Station - double skin for natural ventilation and day lighting

# COLLABORATION

*“The iterative process led by the architects provided not only a quality design but also resulted in a practical outcome that has even exceeded our high expectations. For all its various occupants, and for all its various purposes, the Chancellery Building works outstandingly well. The Clares have resolved the many challenges and seeming contradictions in a difficult brief, to complete a building of which the University can be very proud. It functions well in every respect.”*

*Professor Paul Thomas AM, Vice-Chancellor University of the Sunshine Coast, December 2008*

## Capability

Architectus brings together over 250 design and planning professionals to provide comprehensive design and management services in architecture, urban design, planning and interior architecture.

We have offices in Sydney, Auckland, Brisbane, Melbourne and Shanghai. The offices are linked by seamless technology, the highest business and social standards, and a common philosophy, providing an extensive network of resources for our clients to call upon. Project teams are aided by excellent design review and communication systems and rigorous delivery controls.

We have a proven track record in the delivery of large projects. Recently completed projects such as the Gallery of Modern Art in Brisbane and the University of Sunshine Coast Chancellery were delivered within the client’s budget and programme requirements and exceeded the quality expectations of the users and government. The University of Western Sydney student housing completed in December 2008 was delivered well below budget, attributed to the selection of sensible building materials, a simple and repetitive structural system and high quality documentation. The design of the Brisbane Supreme Court and District Courts has been successfully developed around a changing client budget and is currently under construction and due to be completed on schedule by December 2011.

Architectus directors have been honoured with over 85 major professional awards and are widely published in Australia, New Zealand and internationally. They have been exhibited at the Architectural League of New York as well as Tokyo, Venice, Barcelona, Sydney, Melbourne, Perth and Auckland. Directors have also been invited as keynote speakers at international environmental, architecture, and documentation conferences.

## Process and Delivery

Architectus will apply its powerful research base and knowledge of educational pedagogy and the modern workplace, through Dr. John Hockings (former Professor and Head of School of Design at the Queensland Institute of Technology), Dr. Andrew Bunting and national design directors Lindsay and Kerry Clare and Patrick Clifford.

Lindsay and Kerry Clare will be committed to the project as design directors responsible for leading all aspects of the design. They will be located in Melbourne for this period. Their design leadership will be combined with early collaborative input from all stakeholders (including builders) to provide a building of the highest quality and sustainability. Peter Slifirski will be committed to the role of director in charge.

Architectus will apply its extensive and up to date experience of world’s best practice in building procurement systems. For example consideration could be given to the adoption of the sub-contractor strategy applied to the Brisbane Supreme Court and District Courts project that provides involvement by sub-contract trades during the design development period. This fully inclusive process has exceeded client expectations by providing an environment of “esprit de corps”.

We will apply our extensive experience in the delivery of fully documented projects, which have demonstrated benefits including increased quality and satisfaction of the client brief and reduced construction, operations and maintenance costs. Detailed design and consultation skills will ensure all brief issues are identified and resolved prior to documentation, minimising client and user disagreements and contract variations.

Architectus is widely acknowledged as an industry leader in the area of Building Information Modelling (BIM) and Autodesk Revit. BIM allows for the creation of all presentation and construction documents from a single integrated 3D digital model of the building and services for the life of the project. BIM co-ordinates all building elements, provides early detection of conflicts and maximises project productivity through full integration of plans, schedules, and construction documents. BIM also allows us to better test, analyse and integrate our ESD initiatives with accuracy.

# 1.5 CAPABILITY + PROCESS



1 Bligh Street - commercial tower, under construction (with Ingenhoven Architects)



Brisbane Supreme Court and District Courts - under construction



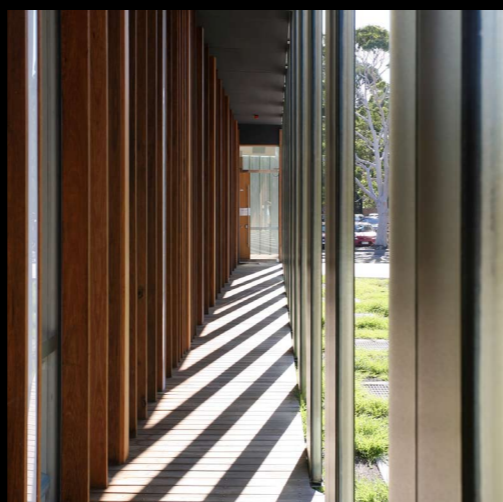
Monash Centre for Electron Microscopy



University of the Sunshine Coast Chancellery



Queensland Gallery of Modern Art



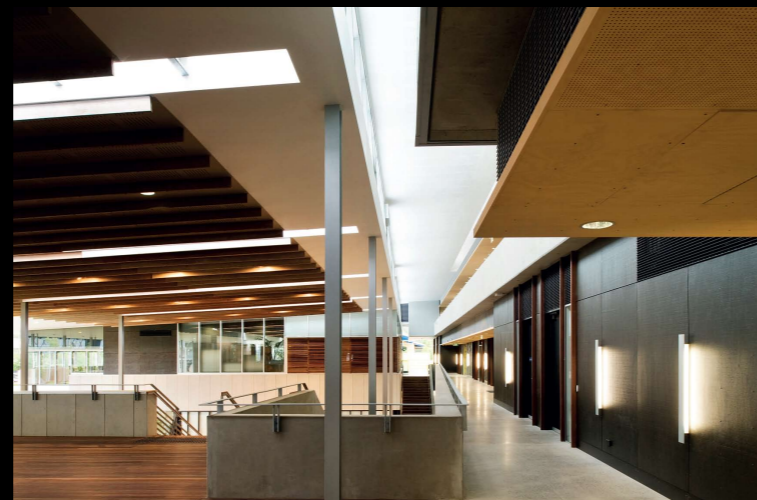
Monash Centre for Electron Microscopy

# 1.6 MERIT

# SELECTED AWARDS + COMPETITIONS



Mathematics Statistics and Computer Sciences Building - University of Canterbury



University of the Sunshine Coast Chancellery



Waitakere Central Library and UNITEC Facilities



Queensland Gallery of Modern Art



Queensland Gallery of Modern Art

## Selected Awards

- 2009 NZIA – National Award for Urban Design – Queen Street Auckland
- 2008 NZIA – National Award for Architecture – Trinity Apartments
- 2008 AIA – Queensland Public Architecture Award – University of the Sunshine Coast Chancellery
- 2008 AIA – Harry S Marks Award for Sustainable Architecture – University of the Sunshine Coast Chancellery
- 2007 RAIA – National Award for Public Architecture – Queensland Gallery of Modern Art
- 2007 RAIA – Queensland Public Architecture Award – Queensland Gallery of Modern Art
- 2004 NZIA – National Award for Architecture – House at Stanley Point
- 2003 RAIA – National Award for Architecture – Jade Stadium
- 2002 NZIA – National Award for Architecture – St Peters Technology Building
- 1999 NZIA – National Award for Architecture – Mathematics, Statistics & Computer Sciences Building, University of Canterbury
- 1999 RAIA – National Commercial Award – Neville Bonner Building
- 1997 NZIA – National Award for Architecture – Clifford Forsyth House
- 1996 RAIA – National Environment Citation – Cotton Tree Housing
- 1995 RAIA – National Commercial Award – Ski n Skurf Waterski Park
- 1995 RAIA – National Robin Boyd Award – Hammond Residence
- 1992 RAIA – National Robin Boyd Award – Clare Residence

## Selected Competitions

- |                |  |             |
|----------------|--|-------------|
| 2008 – Open    | International Criminal Courts, The Hague   | Shortlisted |
| 2007 – Limited | University of New South Wales Art Museum and College of Fine Arts                    | Winner      |
| 2006 – Limited | Queensland Department of Justice – Brisbane Supreme Court and District Courts        | Winner      |
| 2006 – Limited | 1 Bligh Street, Sydney (with Ingenhoven Architects)                                  | Winner      |
| 2005 – Limited | Ocean Beach Hotel Site Redevelopment, Perth – Multiplex (with Kerry Hill Architects) | Winner      |
| 2001 – Open    | International Selection Competition for Queensland Gallery of Modern Art             | Winner      |
| 2000 – Open    | Sydney 2000 Olympic Village. International Design Competition                        | Winner      |
| 2000 – Open    | Lang Park Stadium Competition Brisbane   | Winner      |
| 2000 – Open    | Post Expo South Bank Competition Brisbane  | Winner      |
| 1998 – Open    | RAIA Buderim Master Plan Competition   | Winner      |
| 1997 – Limited | Mathematics Statistics and Computer Sciences Building - University of Canterbury     | Winner      |

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