**BUILDING AS ENABLIER**

The Faculty of Architecture, Building and Planning (ABP) has identified a unique opportunity to design, procure and construct an exemplar building whilst developing its institutional strategy, infrastructure and orientation within a worldwide architectural discourse. The resultant building is to act as an enabler for the Faculty to realise its institutional objectives through architectural practice, research, teaching and learning.

Haenlein Wilkinson King propose to develop a collaborative process with strong architectural strategies to engage with and empower the faculty in realising the building. The project introduces an opportunity to study construction and user related research in a manner that currently does not exist nationally or internationally. The building will also enable the Faculty to design the intention and concept through involvement at all stages of the developmental process; from briefing and concept development to space planning and intended user interaction.

**PROCESS DESIGN AND IMPLEMENTATION**

In a sustainable society it is no longer acceptable to regard a University building simply as passive containers for educational activities.

We have explained elsewhere our intention to design a building which will itself become an armature for different kinds of built environment research. As well as this it is our intention to promote the building and the process of making it as a learning opportunity for other University disciplines.

The University has the opportunity of using this project as the basis for a unique learning experiment for all its staff and students - not only in the briefing, design and construction processes but also in its future use and management. The project provides a compost-heap of learning opportunities so far not considered as viable educational material for a University. It has the potential of inspiring a revolution in what is regarded as a University, bringing our thirst for scientific and technological advancement into a new balance with the need for a sustainable society (see Michael M’Gonigle & Justine Starke Planet U – Sustaining the World, Reinventing the University, New Society Publishers 2006).

In light of the global economy we perceive a further opportunity for the University of Melbourne to use the construction of this new Faculty building as a means of introducing the idea of a 24 hour curriculum linked to the Open University in the UK. We explored this concept in our design for the new Management University of Singapore.

**The Academic Environment**

**DESIGNING = PREPARING A PLAN FOR CHANGE**

Design thinking is an underlying process that links all human activities. This process is constant. Only the technologies change.

Haenlein Wilkinson King believe that this project can be used to empower people to work across boundaries, share ideas, give greater depth to multi-disciplinary context.

**INTELLECTUAL FRAMEWORK**

The “Melbourne Model” was devised in response to knowledge boundaries shifting and reforming to create new frontiers and challenges.

We see design innovation at the intersection of all knowledge domains as the driving force for change.

This provides the opportunity for the Design Studio in the School of Architecture to fulfil a significant role for a range of academic subjects, even those not usually associated with architecture. The proposed building will be conceived as a conceptual framework for the Faculty of Architecture, Building and Planning to create a centre of expertise which excels in exploring environmental issues and makes an impact on the way we design, build and manage our built environment.

This concept building will establish a multi-disciplinary environment for a range of academic staff, undergraduate, graduate and postgraduate students. It will be the base for modular programmes, research and development projects whilst acting as a ‘Building Laboratory’, itself providing the framework for applied research into all aspects of the built environment.

**A PLATFORM FOR LEARNING**

The proposed building provides a platform for multi-disciplinary research and learning, allowing subject areas to overlap. The design process will allow the faculty to fully incorporate specific teaching and research methodologies and analyse how these will reach a spatial conclusion.

Building forms an overlap between the outside world of architectural practice and academic research, allowing an exchange of knowledge between the two:

**The three interdependent components of the learning process**

**HAENLEIN WILKINSON KING ARCHITECTS**

In association with Battle McCarthy and DesignInc

**FACULTY OF ARCHITECTURE BUILDING AND PLANNING**

MELBOURNE UNIVERSITY

**PROCESS DESIGN AND IMPLEMENTATION**

We believe design thinking is essential to facilitate multi-disciplinary collaboration.
In view of the desired interaction in the proposed building, between design studio work and research on the one hand and learning and practice on the other, a design solution will be sought to provide optimum horizontal and vertical connectivity as well as optimum flexibility in the subdivision of spaces.

The example shown (to the right) is the result of a research exercise carried out by us in connection with the International Centre for Inclusive Environments at the University of Reading. This shows the configuration of part of a three-storey education structure with these optimum characteristics. The ground floor is part of a continuous public-shared space, which connects a series of upper floor pavilions. Each of these pavilions can be subdivided with ease in a number of ways. The partitioning system, which includes storage provision, is part of the overall design solution.

Our aim in the design of the Design Studio spaces will be to provide a flexible solution, which is capable of a multitude of configurations for different uses ranging from open studio space to small scale starter professional studios and/or research accommodation. Workshop facilities as well as seminar/teaching spaces will be located strategically in relation to the Design Studio spaces. A key requirement for the design of the Design Studio accommodation will be its capacity to support research on a range of Design Studio activities (see Donald Schön The Design Studio, RIBA 1985 and Richard Sennett The Craftsman, Allen Lane 2008).
Sustainable Solutions

We seek solutions that find the optimal balance between environmental impact, social benefit and financial return both for the client and the community. By integrating ecological building principles into a project from the onset we seek to deliver innovative and practical solutions through the combined skills of the whole design team: architects, structural engineers, and MEP engineers, environmental analysts, landscape architects, environmental planners, and artists.

Throughout a year the external environment can supply useful free energy to a building in the form of light, heat, water and cool temperatures. We believe that ideas should be integrated at the early stages of the briefing and concept design and they should inform shape and the nature of the building envelope. The building skin can be used as a filter or moderator of free energy exchange between the internal and the external environment, thus reducing the overall energy needs of the building.

Building construction and services are responsible for over 50% carbon emissions produced by our society. We aim to reduce their impact on the environment by making use of passive design. From the start of a project the design team must work together to develop the form, fabric and orientation of buildings or groups of buildings, to make the best use of solar gain or daylighting, minimise overheating, provide ventilation and control energy use.

n particular, Battle McCarthy has developed analytical tools to understand the climatic interaction between landscape, building form and structural materials. Their work always looks to explore the opportunity offered by the interaction between climate and structure rather than just approaching it as a problem to be resolved. The result is designs that are influenced through an awareness of natural forces such as light, heat, sound and air movement.

We also advise on techniques for generating energy on site, including photovoltaic panels, solar-thermal panels, biomass, district/community heating, combined heat and power, ground coupling, fuel cells and wind turbines.

To enable us to follow this methodology through to the design of the mechanical and electrical services, each engineer is trained in the practices of environmental design, mechanical and electrical engineering, lighting, acoustics, façade engineering and materials, and an overall emphasis is placed on a high level of interaction with the whole design team.

We aim for responsible material and component specification, considering all impacts during their lifecycle, i.e. during the manufacture, transportation, construction, maintenance and disposal. Throughout the design process we consider life-cycle costs: the environmental effects of the project from construction through to demolition.
PROCESS

International Centre for Inclusive Environments at the University of Reading

Professor Hans Haenlein’s involvement at the University of Reading with the Inclusive Environments Research Group enables him to apply extensive research relating to people with disabilities to his latest project for a new building for the Faculty for the design of inclusive and sustainable environments.

The proposed building will be an exemplar of best practice in the design, construction and management of inclusive and sustainable environments. It will incorporate the latest technology for intelligent buildings and be environmentally sensitive.

In educational terms the building will act as the equivalent of a Teaching Hospital for the Construction Industry by providing a meeting place between Research, Postgraduate Teaching and Enterprise.

The Inclusive Design Process

1. The Briefing Process

This will be carried out in a 7 stage consultative process involving the appropriate stake holders at each stage to ensure sufficient participation in the project’s development.

Stage 1 - Statement of client’s aspirations and needs
Stage 2 - Statement of brief developed from the above
Stage 3 - Conceptual approaches to the design
Stage 4 - Outline Proposals developed to a higher degree
Stage 5 - Scheme Design proposals
Stage 6 - Detailed workshops around particular specialist themes
Stage 7 - Final presentation

The initial competition design submission will be used as a starting point for this process.

2. Design Approach

With a pluralistic institutional client it is necessary to set up some form of hierarchy of responsibility to establish decision making procedures. It is impossible to utilise the particular views of every member of the participating parties at every stage of the project. However, it is important to allow input by specialist members at appropriate stages of the design development process.

3. Design Workshops

We believe in workshop based participatory approach to design and have developed a process which is designed to integrate the concerns of all sections of the client team. We believe this approach is essential to institutional client groups which have within them disparate aspirations and concerns.

The process starts at the inception of the design brief and continues to the detailed design of the building. It involves the use of graphic media which are often created during the workshop process and devised to empower non-designers in the client group to express their thoughts holistically and visually. Special attention will be given during this process to ensure that the building will be accessible to disability groups and ecologically sustainable.

Each workshop involves active drawing and visualisation in session.

The workshop based briefing and design process provides in itself an educational and research opportunity for the University. It will also raise the faculty profile.

CAPABILITY

HANS HAENLEIN

Professor Hans Haenlein’s unmatched level of expertise and experience in the field of the education of Architecture, Environment and Construction with his recent practical experience in the realisation of a new faculty building at Reading University puts him in a unique position for involvement in the new building for Melbourne University’s Faculty of Architecture and Environment.

COLLABORATION

HAENLEIN WILKINSON KING ARCHITECTS will work closely with the Melbourne University and the client team to develop the brief. Other Consultants including Battle McCarthy and Design Inc will be brought in at an early stage to inform the initial concept design and subsequent design stages.

Detail Design and Construction Phases of the project will be carried out in close collaboration with Design Inc who are ideally placed to be Local Executive Architects for a project of this scale and complexity.

DESIGNINC ARCHITECTS in Melbourne have a profile of built work, including large educational and high profile local projects that make them ideally suited for this particular project. Their recently completed [Town Hall building TBC] is notable for civic presence and it’s integration of sustainable .... and technology.

MELBOURNE UNIVERSITY - Faculty of Architecture, Building and Planning

HAENLEIN WILKINSON KING ARCHITECTS

In association with Battle McCarthy and DesignInc

FACULTY OF ARCHITECTURE BUILDING AND PLANNING

MELBOURNE UNIVERSITY

Process and Capability
Hans Haenlein professional involvement includes:
- Royal Institute of British Architects - Vice President for Education and Professional Development 1987 - 90
- Standing Conference of Heads of Schools of Architecture - Founder Member/Chairman 1985 - 1990
- Construction Industry Council - Founder member and Chairman of its Education and Training Committee - Chairman 1988 - 1991
- European Commission Advisory Committee - Architectural Education - UK Education Representative 1987 - 1990
- Building Centre - Director and Trustee 1977 - 1985
- South Bank University - Director and Trustee 1981 - 1994
- South Bank University - Professor Head of School of Arch. 1976 - 1991
- South Bank University - Dean of Faculty of the Built Environment 1989 - 1991
- University of Reading - Adjunct Professor of Architecture 1991 - to date
- Hammarsworth Museum - President 1985 - 1990
- European Association for Architectural Education - Founder/President 1976 - 1980
- ProHelp - London - Co-Chair 2005 - 2008
- Civic Trust Awards - Assessor 1973 - 1987

- Selected publications include:
  - 'Architectural Practice in Europe - Germany', (with Professor W. Biggs), RIBA Publications 1991
  - 'Professional Education for Construction: Continuing Professional Development', Department of the Environment, October 1989
  - 'Professional Education for Construction: Overseas Comparisons', Department of the Environment, October 1989
  - 'Property Management for Architects - Schools as a Resource', Nottingham University, December 1997
  - 'Influence of the European Community on the Education and Training- of Building Industry Professionals in the UK', Hong Kong University, November 1986
  - 'Feasibility Study for Rationalisation of the South Bank Polytechnic's sites in Southwark', DES A&B Branch publication, November 1986

Hans Haenlein has over 30 years experience in the design of education and community buildings. In the education sector his experience ranges across the whole spectrum of primary, secondary, tertiary and specialist teaching facilities.

Hans Haenlein is a leading expert in the briefing process and in the planning of education facilities. He has advised the British Government and individual schools on the preparation and implementation of strategies for education facilities and the design of specialist buildings. In 1987 he was awarded the MBE for services to architecture. In October 2005 he was admitted to the RIBA specialist register of Client Design Advisors.

His involvement at the University of Reading with the School of Construction Management and Engineering underpins his practice with up-to-date research in the construction sector.

He has designed buildings and produced masterplans in the UK, France, Germany and Uganda.

Chantal Wilkinson and Julian King are experienced practicing architects, with a strong design base to their work which follows from their training at the Royal College of Art in London, and have sought design at a number of schools of Architecture inc. Cambridge University. They have had strong links with Hans Haenlein since 1985 when they first collaborated on a school building project. They have won design competitions and a number of architectural awards for built projects, which have also been published in the architectural press. Awards include two RIBA Awards in 2006 and 2008 - and Architect of the Year Award 2005.

Awards
RIBA Award 2008, Wexness Regional, Baden-Powell Outdoor Centre - Winner
CIAT Open Award for Technical Excellence, Baden-Powell Centre - 2nd Prize
The Wood Awards 2008, Baden-Powell Outdoor Centre - Short listed
RIBA Award 2006, South East Region, Esher House - Winner
BD Architect of the Year Award 2005, Single Dwelling - Winner
Daily Telegraph and Home Builder Award 2005 - Winner
Grand Designs Award 2006, New-build House, Esher House - Finalist
Ecola, European Architectural Award, Esher House - Short listed
AJ/Robin Ellis Small Project Award 2000, Wimbleton House - 2nd prize
RIBA London Regional Awards 2000, Wimbledon House - Short listed
AJ/Robin Ellis Small Project Award 1999, Shieland Road - 1st prize

Publications
- Architecture Today, front cover + feature, Baden Powell Outdoor Centre April 2008
- RIBA Journal, RIBA Awards, 22.06.06, Esher House - June 2006
- 'H Houls', Wimbleton House - May 2006
- 'Architecture Today', feature, Esher House - Sept 2005
- 'House Plus', Thames and Hudson, front cover + feature Wimbleton House,
- 'Elements of Style', Mitchell Beazley - Shieland Road - June 2005
- 'Telegraph Magazine', 'The Glass Divide', Addison Grove - 10 Jan 2004
- New Architects 2 - Guide to Britain's Best Architectural Practices
- 'Architectural Journal', Shieland Road, front cover - Jan 1999

HAENLEIN WILKINSON KING ARCHITECTS
In association with Battle McCarthy and DesignInc

BATTLE McCARTHY ENVIRONMENTAL ENGINEERS & LANDSCAPE ARCHITECTS
www.battlemccarthy.com

Battle McCarthy is a multi-disciplinary practice that specialises in the design and delivery of sustainable solutions for the built environment. They seek solutions that find an optimum balance between environmental impact, social benefit and financial return both for the client and the community. They have established a world renowned reputation for breaking boundaries and producing award-winning results.

Careful analysis of daylight and solar penetration; thermal control; and ventilation and sound control is used to develop the engineering strategy of the building design and assist the architect to generate an architectural form that accommodates all design issues including structural materials and building systems. In particular, Battle McCarthy has developed analytical tools to understand and explore the opportunities of climatic interaction between landscape, building form and structural materials. The result is designs that are influenced through an awareness of natural forces such as light, heat, sound and air movement.

Battle McCarthy has been involved with exciting largescale building and master planning projects around the world including in Saudi Arabia, Bahrain and Delhi.