Built Pedagogy

"The best way to predict the future is to design it"
—Buckminister Fuller

The pedagogy involved is a problem-based, critical thinking and problem solving environment; where a service-learning model will be employed in an interdisciplinary studio. The learning environment will transcend the boundaries of paper based design and its consequential CAD operated system to a digital architectural and design age.

The Faculty will be housed in cost effective and flexible spaces, which will optimise investment yield, reduce operational expenses and maximise returns on human capital.

The Faculty will transform graduates, research scholars and staff to partner, collaborate and interface with the various disciplines of architecture, built environment, design, property, landscape and urban design in an open and transparent environment using latest web based collaboration technology, high use of digital white board walls and flexible spaces.

The design focus on integrated communities will encourage collaboration while the best of the best services will broaden knowledge on finance, economics, culture, history and society. This process will develop a community of high value scholars, horizon thinkers and practitioners.

Each of these topics will be addressed as critical elements of the design strategy where quiet research modules, built geometry, topography, e learning stations, digital knowledge library, Zen forum spaces, peer to peer mentor stations and digital media displays; form, light, texture and colour of materials will be the catalyst for inspiration and knowledge.

Innovation in highly productive research and studio facilities will attract industry and government backed revenues. The research and laboratory design goals will be a balance of private and public space. The concept will provide modular, quiet working units which can be grouped or dispersed to meet demand. The strategy will provide an innovative re-thinking of research needs allowing the ultimate flexibility to address unplanned change over time.

Learning street walls will become an ever changing digital medium to exhibit contemporary or historical works; structural floors will encourage topographical thinking (taking into account accessibility concerns) while volumetric spaces will inspire art, history, political, cultural and economic debate.

Building materials used will open window to new products, sustainability, science, technology and engineering brilliance. External building fabric will be layered and movable to catch solar power and embrace new technologies.

The responsive built environment will challenge students and staff to transcend their own disciplinary boundaries and languages and come to respect the expertise of each other in open and controlled spaces which will demand engaging in intelligent conversation with staff, peers and fellow students.

A successful model can only be measured by how the student absorbs and applies the imparted knowledge. The knowledge flow will be a continuous stream of learning and unlearning through e classes, face to face mentoring, e library, personal 2.1 web forums, remote access to research papers, real and web based display of ongoing works, ideas provoking forums and appreciation of space, time and architecture.

The measurement will be gauged through real and electronic simulation of concept to reality in designated areas. Meeting with industry experts, government bodies, scholars, trade and professional practitioners in a live or web based conferencing medium will be standard practice to measure performance.

Major assignments will be showcased through electronically projected virtual 3D models where the viewer will walk around the projected model and experience the effect of simulation such as weather or building cost variables.

Accordingly spaces will be provided at strategic locations and heights for ideal viewing of such virtual models. These vertical and horizontal spatial platforms will be the backbone of interaction in the thought provoking and enquiring minds of staff, students, critics and scholars.

Research students will experience a rich field of real subjects in real time - in modular meeting spaces or in laboratories. They will enjoy finger tip, surface mounted digital access to a knowledge base. They may e-debate from the comfort of their chair or in conference rooms overlooking atriums.

The introduction of the paperless studio, the e-studio and the virtual design studio will result in a major shift in perspective, and a reorientation in theoretical and conceptual assumptions.

Contemporary societies are in a continuous state of learning and transformation.

The built environment will be an architectural algorithm showcasing the language of peace; woven in communities, textures, materials, space, colours, shape, topography, light, greenery, open studio areas, sustainability and intelligent conversation pits.

The Academic Environment

The faculty will be the model in emerging work spaces; comprised of multi level zones of personal space, green space, sky streets and studio nodes.

A built environment which stimulates continuity in the work- life balance, performance appreciation by peers, provision of a learning tree of e knowledge, spaces for vigorous live and web based forums, health and fitness facilities and provision of physical and spiritual diet will attract and retain talent.

Each of these key areas will be addressed in a multitude of flexible and designated spaces; digital media rooms, electronic white board walls, Zen zones and technology simulation laboratories to assess and evaluate concepts.

Work spaces will be quiet modular areas provoking thought, curiosity and inspiration.
Collaborative work areas spread throughout the faculty will research alternative teaching and learning styles and variations in studio practices. This will be the catalyst to evolve excitement in curriculum design.
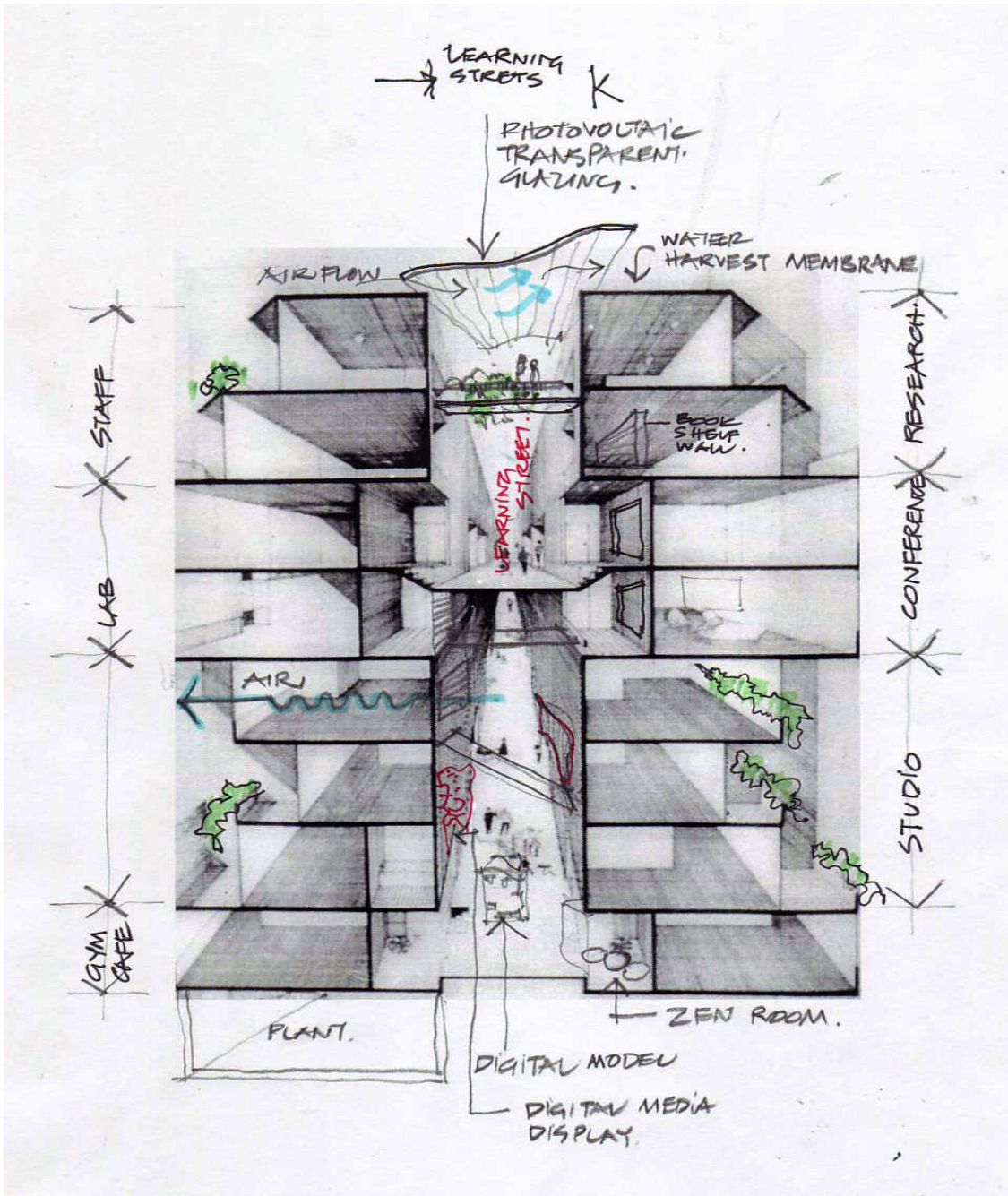
Provision of one on one online mentoring hubs, e forums to test theories, surface mounted access controls to e- information on products and services will be the foundation of productivity.

Knowledge delivery to students will be individual, electronic or lecture based; in small or large student groups. This can be experienced in a non – hierarchical student area where students of different levels can participate in invited lectures and workshops. The variety of teaching modes and varied teaching spaces will bring excitement and challenge to teaching life.

Learning streets will encourage debate; interesting shaped spaces provided for group discussion and formal lecture halls will break the monotony of daily teaching life.

Academics will be visible on sky streets, glass lifts, ramps, green spaces and their works will uploaded regularly on individual websites or displayed on walls, which itself will offer both hard copy or electronic display.

The availability of child care, gyms, libraries, walking ramps, roof top digital cafes and bike paths will be some of the features to attract and retain the best talent.

Learning Streets

Photovoltaic Transparent Glazing.

Water Harvest Membrane

Air Flow

Staff

Lab

Gym Cafe

Book Shelf Wall.

Learning Street.

Air

Plant.

Digital Model

Digital Media Display.

Zen Room.

Research.

Conference

Studio

The Design Studio

"Design Studio is King"

Design studio will be the platform for digital design and technology to balance challenging minds with practical outcomes in all the disciplines.

While encouraging originality in thinking, ample online resources will be available to make measured conclusions.

The studio will be a learning space split by levels and ramped learning streets; where hierarchy will be latent.

The use of form, colour, materials, sustainable design, comfort and ergonomically design furniture will encourage mental stimulation.

Studio can be interactive lecture spaces for large groups or be held in smaller groups. Individual mentoring will be provided in quiet work stations, Zen rooms or meeting zones.

The provision of movable suspended acoustic panels will create flexibility. Chairs will be stacked in storage walls and brought out on demand. Pop up tables will be concealed when unused.

Splined dividing walls will create acoustic benefits and privacy as well as be an electronic display medium.

Walls, ceilings and floors will provide the geometry and topographical platform for conceptualising design.

Digital technology laboratories will be strategically located to test, evaluate and measure performance of concepts and theories. The facility will measure the relationship between conceptualisation and materialisation.

The provision of green spaces. Natural light and a healthy building will bring relief to a stressed mind.

Studio layout will focus on environment, technology, engineering, tectonics, topology, materials, finance, history, culture, politics and economy. Spaces will be dedicated to model generation, testing and materialising concepts through animation.

Model generation will be real or computer simulated in laboratories where the performance of a simulated design will modify designs digitally.

Dedicated areas within studio will address each of these key areas through the provision of open or enclosed 2D and 3D spaces and laboratories.

The Living Building

The built environment will employ the best of passive solar design and fuel cells.

The questions we will address in the affirmative are:

Does it run on sunlight? Does it use only the energy it needs? Does it fit form to function? Does it recycle everything? Does it reward cooperation? Does it bank on diversity? Does it utilise local expertise? Does it curb excess from within? Does it tap the power of limits? Is it Beautiful?

Transparent Photovoltaic panels will be used as multi tasking glazing to designated windows and PV membranes will form partial roofing.

Uninterrupted power will be generated through fuel cells. Integrated waste treatment systems will engage PVs and fuel cells. The ultimate goal will be the creation of a wetland eco system.

Water will be harvested through horizontal tanks and water generation membranes in the roof and below ground. Its reticulation will conserve energy costs through out the year.

A whole host of other bio-mimetic technologies are being developed for all areas of building construction including insulation, windows, electric lighting, controls and mechanical systems. These technologies will be integrated with one another for greater efficiency and comfort.

Materials like Air Gel will be used for maximum insulation properties.

Double and triple glazed window systems will be filled with Argon gases to reflect and absorb heat.

The floors will be elevated so all networking, and air control can be located underneath. The carpet will be tiled so that each piece can be lifted and services underneath be reconfigured. Services will be movable hence if a researcher is bothered by the location of the air vent in his or her office they could have it moved to some other location.

Many of the interior walls will be moveable. This will enable a group who wanted to change its space do so without costing the Faculty high expenses in rebuilding costs thus making the building more sustainable and organic.

Instead of wasting space building big offices so that researchers can have space for book collections, book case walls will line the hallways in interesting forms. That will make the building more social and more efficiently used space. This community space will let researchers and staff share their library.

Wide open spaces will make the building more social. Many of the conference rooms will be open to viewing from the atrium leading to a more inviting work style. This strategy reinforces the belief that the Faculty Research arm openly shares its research with others, and simultaneously saves energy due to natural light access.
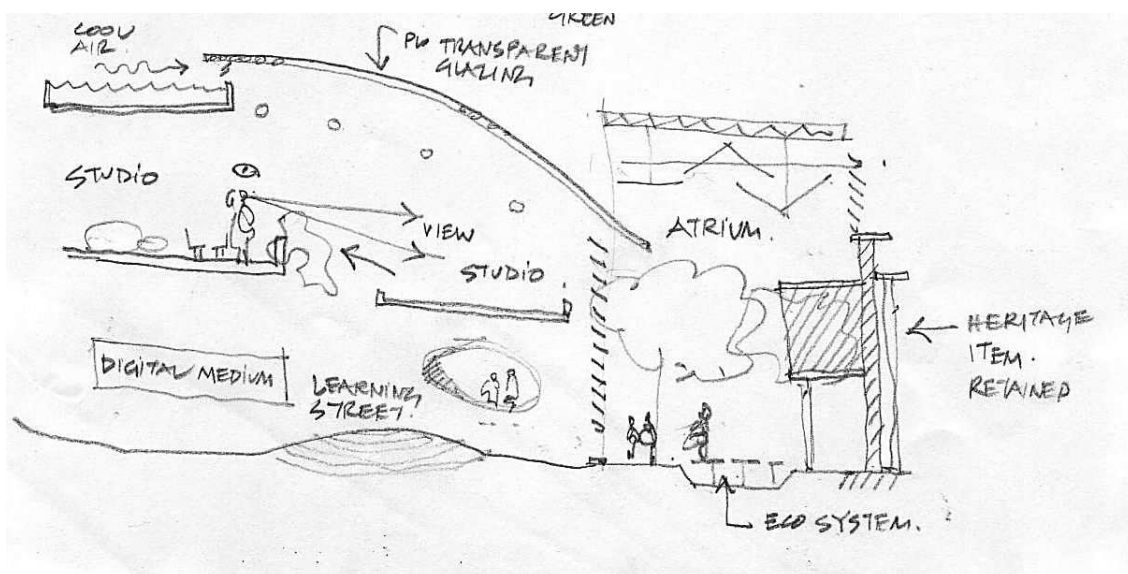
Capability and Process

The Design process will be headed by a core group of in-house designers and research staff. A support team of technical experts will research current technologies, methodologies and their applications.

From the onset the team's engage with the Faculty user groups. Our attitude will remain: the Architect will listen to the client and implement compelling arguments.

Regular interaction with the user groups will be the backbone of the relationship.

The strength of our success will lie in continuing our partnership with consultants and engineers, who are leaders in their fields. Consultants we may engage could include WT Partnership, Murchies and Arup.

The design team has the resources and capability to undertake complex projects and will collaborate with technical experts at all phases of documentation for optimum results.

The input from Quantity Surveyors measuring budget vs. actual will be a weekly process thus minimising cost over runs.

We will engage Melbourne based consultants to provide all engineering services, project management and cost control.

The project team will be headed by Brendan Fenton, a (Vic) Registered Architect. The Design process will be developed by Swarup Dutta. Both Brendan and Swarup will play hands on role through the design and construction stage.

Both Brendan and Swarup have over fifteen years of professional architectural experience and have worked on projects exceeding 20,000 sq.m.

As Architects we will provide written terms of engagement of architects and consultants. We will develop appropriate design solutions. We will keep you informed of important steps. We will liaise with builders, suppliers and consultants. We will inspect works. We will undertake a final certificate of inspection during the defects liability period. We will issue final certificate of satisfactory completion and advise regarding maintenance. We will act on your behalf in all negotiations.

Merit

The Design Architects have worked on a variety of projects in their career. They include major commercial developments in Victoria, schools in NSW, prestige residences, technical compliance works and the Indian Institute of Technology, New Delhi under the guidance of JKChowdhury, a Bauhaus schooled master architect and Associate of Le Corbusier during the building of the city of Chandigarh.