Our environment is vulnerable, subject to fire, flooding, drought, typhoons, earthquakes, changing sea levels and events or through risks that arise from lack of natural resources. A considerable portion of research conducted by our academics and students focuses on ‘vulnerable environments’ in which we take a holistic view of what this term means. As a leader in built environment and urban research, our researchers explore the mitigation of climate change and natural disasters; propose sustainable systems for a low-carbon future; and design safer, healthier and more resilient public and private spaces. This issue of Atrium brings some of this work to your attention.

Alan March leads in this issue of Atrium with a piece entitled Mind the Edge: Designing to Live with Bushfire. Based on his research into fire and planning, Alan outlines how this research is revealing principles that can guide the regulation, design and management of our towns and cities to improve bushfire resilience. Alan is lead researcher on the nationally funded ‘Urban Indicies for Bushfire’ project, in collaboration with CSIRO and RMIT, and is jointly delivering new qualifications in Bushfire Planning and Management at the University of Melbourne.

Professor Gini Lee, Elisabeth Murdoch Chair of Landscape Architecture, contributes a piece on her research into the water landscapes of the Canary Islands. Gini and her international research partners recently explored the Canary Islands, a small archipelago subject to ecological and climatic dynamics. As detailed on pages 8 and 9, the Islands’ location and scarce resources makes them vulnerable to exploitation from tourism, industrialisation and colonisation. However, the very isolation and intrinsic beauty of these places also reveals their uniqueness and resilience.

Turning to Papua New Guinea, we gain insight through Carolyn Whitzman’s collaborative research into improving road infrastructure for people with disabilities. Despite the fact that around 520,000 Papua New Guineans are living with a disability, these individuals are often excluded from essential services, social networks and economic opportunities due to restricted access. The findings of her research - conducted in conjunction with a number of government and NGO partners - are being used to develop guidelines for road infrastructure planners and to promote disability inclusion.

The potential for architecture in structuring our world was the focus of a symposium held in Sri Lanka this August, coordinated by Paolo Tombesi, ABP’s Chair in Construction and Dr Milinda Pathiraja, Senior Lecturer at the University of Moratuwa. The Salt River symposium drew practitioners and academics from Sri Lanka, Australia, Brazil, China, India, Italy, Portugal and the United States to explore architecture’s complex relationship with city-making and building construction.
Symposia such as these are an important part of our international engagement efforts and in distilling ideas to improve our vulnerable and built environments.

The 9th studio in the multi-award winning Bower series spent time with the remote Belyuen community in the Northern Territory this spring. Led by David O’Brien, 11 MSD students worked with this Indigenous community to construct a sheltered outdoor living area for a local family. Read about the group’s progressive work on pages 14 and 15, which reflects ABP’s ongoing engagement with Indigenous communities.

The notion of ‘liveability’ and Melbourne’s status as ‘the most liveable city in the world’ is often debated. Alan Pert, Director of the Melbourne School of Design, explores the liveability tag and critiques a seminar hosted by the MSD in October, which featured Ian Gilzean, Scotland’s Chief Architect. The seminar explored Scotland’s successful 2010 Housing Expo and the possibility of hosting a similar event in Melbourne to promote affordable, sustainable housing options.

Closer to home, the inclusion of greenery in our cities is key in designing healthier, liveable urban environments. Current research suggests that taking an ecological approach to sustainable design through the selective use of greenery, leads not only to a sustainable society but to a healthier one. Dominique Hes and Boonlay Ong write about their collaborative work with the City of Melbourne to increase greenery in private sector projects.

This edition of Atrium also features an alumna profile on Victoria Grounds, a story about a partnership between the MSD and Melbourne Zoo to address the sensory needs of zoo animals via design, and a wrap-up of recent Faculty news.

Following the commencement of main works in April 2013, our new building has risen rapidly before our eyes. As always, I encourage you to visit our new building project blog on the ABP website to stay across the construction progress - www.abp.unimelb.edu.au/blog and join in supporting our work.

Best wishes for a safe and happy holiday season and I look forward to seeing many of you in the New Year.

Professor Tom Kvan
Dean, Faculty of Architecture, Building and Planning

Much of the historical mythology underlying Australia’s identity is linked with what we now often call resilience. It is often presented as valorous and laconic resistance to adversity such as bushfires, or simply “getting on” with rebuilding afterwards.

In contrast, the urbanised reality of Australia over the last century or so is that most residents of cities and towns have become increasingly reliant on the relative protection from the worst effects of bushfires offered by institutional systems. These include forest management and fuel reduction processes, emergency response agencies, and guaranteed disaster relief funding, combined with the majority of people being separate from the bush in any case.

This version of urban reality depends on a perspective of human settlements being artificially separated from the bush, and that naturally occurring processes such as bushfires should be held at bay as if they must be conquered by human fortitude. Such a view is also dependent on humans being able to control, harness and exploit the natural world, while overcoming the unwanted aspects of this separate natural world, including the prevention of bushfires’ negative effects. Despite, or perhaps because of, this obviously artificial separation from the natural world, Australians in greater numbers than ever before now seek out proximity to bushland in the rapidly expanding edge areas of our towns and cities. These growing interfaces with bushland and other fire-prone landscapes mean that unprecedented numbers of people are likely to experience bushfires of a scale and magnitude that will test the resilience of the settlements in which they live.

In parallel with increased growth, ongoing events have demonstrated that extreme bushfires are consistently overwhelming defence-style systems established by response agencies to protect urban areas. The result is that increasingly devastating losses to life, property and socio-economic systems are being suffered. This unfolding history of fire events, acknowledgement by government and policy agencies that higher numbers of extreme fires are “very likely” (IPCC, 2012: 460), and combined with increased urban-edge and rural population growth projections, has led to realisation...
that it is no longer feasible to expect that emergency services will be able to successfully defend all urban areas threatened by bushfires, despite their considerable abilities and the best intentions. This means that settlements in interface areas will increasingly need to be able to interact in more resilient and sustainable ways with the natural processes of the bush, including the prospect of extreme bushfire events, so that losses and disruption are minimised.

Ongoing research into the ways that fires interact with urban areas is revealing principles that can guide the regulation, design and management of our settlements to significantly improve bushfire resilience with less reliance on active defence.

For example, the rate of decline of fire intensity as a function of separation from vegetation and of slope and aspect is increasingly recognised and quantified as a key design principle. It can be determined to a large extent using a combination of research, professional experience and application of mathematical modelling.

In the 2009 bushfires that affected the regional city of Bendigo, the fire front moved relatively unimpeached through the landscape and low density buildings until it met with lot sizes that were relatively smaller at approximately 800 square metres or less, at which time it was contained.
Importantly, a key element of the professional skill required is the appropriate identification of likely bushfire scenarios, not just by assessing an individual site, but by modelling the fire behaviour and build-up of intensity in the wider geographical area. Further, this assessment needs to take into account the likely steady-state and peak load possibilities of vegetation in the long term in a given landscape, while minimising losses of native vegetation on public and private land.

These risk assessments are now revealing that some areas in Australia have bushfire risk levels that are simply beyond what can be reasonably dealt with via design or engineering. This analytical result is providing a starting point for strategic planning policies to make the difficult but important argument that no further development can occur in some areas. In parallel, on land that is understood to be dangerous, but within manageable levels, the task is to determine the appropriate design and layout of settlements to manage bushfire risks. My research has shown that there are key features of settlements’ layouts that have significant impacts on bushfire risks, although care needs to be taken in examining these factors in isolation. For example, the density and size of properties is important in interface areas. In the 2009 bushfires that affected the regional city of Bendigo, the fire front moved relatively unimpeded through the landscape and low density buildings until it met with lot sizes that were relatively smaller at approximately 800 square metres or less, at which time it was contained. Of course, multiple factors were at play, such as the improved ability for fire services to defend concentrated buildings, denser roads networks providing breaks in fuel, and the likelihood that residents could afford to have solid fencing at their property boundaries. These factors combined to reduce the speed and intensity of fire progress and the impacts of ember attack.

Conversely, it is also now known that houses located close together, particularly with flammable fencing, vegetation and other combustibles between them, represent a high risk for house to house transmission of fire. This suggests that excessive densities combined with other factors are also risky in some instances. House to house fire transmission occurred in the case of the highly urban impacts of the Canberra 2003 fires, complicated by the factor that many owners were not present to defend their houses. As a result of studying fires such as this one, the location and design of outbuildings, gas meters, storage of recreational vehicles and boats with flammable fuels and wood stores are also now understood as important risk factors in setting out the design of settlements.

It is also now clear that strip development along roads where the rear of properties is exposed to a potential fire front significantly increases risk. My research has shown that this negatively increases the ratio of fire front width that can be defended per dwelling by fire services, and is often complicated by properties having only single access routes with limited redundancies in the event of roads becoming impassable. In combination, the alignment of corridors of vegetation into urban areas parallel with the direction of the worst fire progression scenario, such as the case of Bendigo 2009, demonstrated that the overall morphology of settlements needs to be considered when assessing fire risks and in directing urban growth.

At the scale of individual properties, the detailed design and siting of individual buildings is also vital to the management...
of bushfire risks. As a site-specific response to determining likely fire behaviour, fire intensity in kilowatts, type and duration of attack, and subsequent materials and building techniques can be specified as design parameters. This is based on detailed testing of the fire resistance of materials typically used in Australian buildings conducted by CSIRO and others. The importance of detailed design features using these materials has become increasingly apparent. These include recognition of the structural impacts of strong winds associated with bushfires on buildings that go beyond the wind loadings normally specified in non-cyclone areas. In association with this, the importance of high standards of construction and maintenance to avoid ember entry cannot be overstated. Careful specification of glass in windows also needs to be undertaken in combination with their location away from flammable vegetation. Importantly, being able to choose rated materials from those typically used in Australia to respond to the specific threats likely to be experienced on a site, means that additional costs can kept to a minimum, increasing the likelihood of compliance over time and allowing design flexibility.

By ensuring high building standards, sufficient defensible space around a building, and ensuring that planting near structures is appropriately chosen and maintained, occupants will have significantly higher chances of surviving extreme fire events. In research I conducted with the Country Fire Authority after the 2009 fires, buildings built to these types of standards were more than three times more likely to have withstood the fires, irrespective of whether they were actively defended.

The development and application of these principles is inherently multi-disciplinary, and requires integration of multiple geographic and institutional scales from the region to the individual site. The built and natural environment professions stand in a unique position to respond to this emerging need. Improving bushfire resilience requires integrated responses from disciplines as diverse as fire scientists, ecologists, landscape architects, urban designers, planners, engineers and builders. This will allow settlements to become more resilient to the processes of bushfire in the Australian landscape. Ulrick Beck suggests that risks are the potential impacts upon people and places, but this is problematically disconnected from the ongoing activities of modern life. The challenge we face is to bridge the cultures of normalcy and states we currently see as exceptions such as bushfires (Beck, 2009).

Dr Alan March lectures in urban planning in the Faculty of Architecture, Building and Planning. He is lead researcher on the nationally funded research project Urban Indices for Bushfire in collaboration with CSIRO and RMIT. He is jointly delivering new qualifications at Melbourne University in Bushfire Planning and Management with the Melbourne School of Land and Environment as a direct recommendation of the Royal Commission into the 2009 Victorian Bushfires.


The Water Landscapes of the Canary Islands: Exploring Vulnerable Island Environments through Transect Fieldwork

GINI LEE, ELLEN BRAAE & LISA DIEDRICH

Island environments, particularly small archipelagos such as the Canary Islands, are more visibly subject to the vagaries of change wrought by ecological and climatic dynamics, shifting social conditions and economic impacts subject to global markets, than is witnessed on continental worlds.

Island entities’ relative isolation from the mainland, exacerbated by challenging environments and scarce resources, leaves them vulnerable to exploitation from tourism, industrialisation and extraction, and to residual political dissonance resulting from outsider colonisation. However, these hermetic places also amaze the travelling observer who comes into contact with unique natural entities and sites-specific cultural constructions that accompany evolutionary isolation.

This brief account of a recent journey to three of the numerous small islands that comprise the Canaries traces research undertaken by landscape architects/academics seeking to explore and understand the diverse water landscapes of the Archipelago. We originally planned this journey as a transect, striking a line from west to east across the islands, prompted by an invitation to produce an exhibition for the Canary Islands Biennale (ultimately cancelled due to the poor state of the Spanish economy). The transect methodology is framed by both scientific and landscape design research building upon student focused transects undertaken by landscape programs elsewhere in Australia in which we had previously participated. In April 2013 this travelling research transect sought to uncover the more ephemeral values of these island landscapes: over the course of a week we explored the relational, dynamic and atmospheric qualities inherent in the striking yet fragile Canarian landscapes.

Fieldwork is an essential tool of landscape research, where the ability to focus on specific site qualities across territories reveals multiple conditions that contribute to understanding the links between environments, human use and temporal change. Over a number of months Lisa Diedrich, Ellen Braae and Gini Lee collaborated towards revealing, to us, unfamiliar landscapes. We employed traditional fieldwork tools of mapping, sketching, photographing, modelling and collecting together with the gaining the knowledge of architectural and landscape guides including Juanma Palerm on the barrancos (ravines) of Tenerife, Carolyn Bos on her farm valley on Lanzarote and Emese Szellanszky on the waterless island of La Graciosa.

Preparation for the trip consisted of speculative sectional mapping to establish transects routes from island to island while enabling detailed mini-transects at compelling sites that arose from desk research. Our main guide was the 18th and early 19th century traveller, writer and explorer Alexander von Humboldt who in 1799 adopted the Canaries as test site on his way to the Americas. We in turn adopted
his transareal method for our Canary Islands project, retracing his recorded journeys across Tenerife. We were left to imagine his travel on Lanzarote and La Graciosa Islands as though he had broached the inland beyond grazing their coasts, mistaking them for somewhere else. A transareal approach embraces mobility across geographical borders and territories alongside open-ended thought across scientific, cartographic and cultural disciplines – a theory and practice that caused dissent in the scientific community at the time. Today his thinking feels very appropriate to contemporary designed landscapes that are required to operate in the ephemeral and rapid conditions provoked by a globalised economy.

We traced the water landscapes across islands encountering varying states of aridity subject to low water availability and decreasing portable water for the burgeoning tourist industry. Observations were recorded of the community's parallel concerns of the commercialisation of the spectacular coastal and volcanic landscapes, particularly on Tenerife and Lanzarote, and the rise of desalination industries alongside pristine rocky beaches, without which the long-term habitability of the Islands is marginal. Our research acknowledges aesthetic and ecological issues promoted by universal industrial-scaled systems that fail to adapt to local qualities and community values. The transect approach experiments with recording whatever is touched on when following the line across rapidly changing topographies and climates. The juxtaposition of diverse site conditions makes for a discursive landscape experience heightened by overlaying both material and ephemeral observations.

On La Graciosa there are multiple constructed water storage containers of various forms that result in subtle landscape modifications to enable flows from rare rainfall collection. This is due to the island having no water supply of its own. One of the abiding narratives refers to the early need to gather fresh spring water to sustain the village, which required many hazardous journeys across the water from La Graciosa to the sheer cliffs of northern Lanzarote to fill containers from the single spring seeping from the rocks. Today this practice has fallen away due to the installation of an underwater pipe, but tourists are still brought close to the flowing spring with its patch of bright green moss in the stark grey cliffs that marks the point where the water gatherers once engaged in their risky and life sustaining practice.

We visited the curators at artist/architect Cesar Manrique's Foundation on Lanzarote where his great legacy of art, architecture and landscape projects embraces the specific topographical and artisanal practices of the volcanic flows that form the island's landscapes. Manrique understood that the future of his home island lay in tuning architectural practice to the striking landscapes and the ways people adapted their everyday practices to capture and bring to presence every drop of naturally occurring water. His sponsorship of a range of art and landscape based commercial and cultural operations emerge from landscape formations to form quarry cactus gardens, concert halls located in volcanic caverns and galleries moulded into flow topographies. Through a bylaw he promoted the eponymous whiteness of buildings and villages, reinforcing the spatial and sculptural qualities of blackened, flow textured outcrops. Across the island local agricultural constructions reform sloping valleys into contemporary feeling black sand angular terraces, seemingly reflected in new urban projects although this practice is hundreds of years old.

Travelling transect methods bring the nature of the itinerary to play in contemporary landscape research expanding the physical and material qualities of regions, places and sites recorded through well known analogue and digital techniques. Familiar mapping tools are enriched through bringing additional ephemeral site qualities to presence; where recording stories and collaboration through field walks and conversations invite speculation on site relational dynamics and atmospheres – impressions and moods – along a continuum of experience. In these walks and travels, differing perspectives passed on from cultural and disciplinary difference bring insights that otherwise would not have emerged. Observations from one place overlain onto other places enable site assumptions to be challenged. Humboldt undertook such experiments which led to perceptive mapping that demonstrated global interrelationships that were astonishing to the scientific community of his day.

So, what is to be made of these fieldwork observations and collections? Our post-travel reflections have resulted in research papers, conference presentations and a multi-media exhibition as part of the schema for communicating material gathered and now under the process of further examination. Further conversations with our collaborators seek the potential for exhibition on-site to reveal the vulnerabilities, and the resistances, and adaptations underway across ecologies and localities if we committed to tracing the contemporary application of Humboldt's works to the constructed landscapes of the Archipelago.

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Travelling Together: Disability Inclusive Road Development in Papua New Guinea

CAROLYN WHITZMAN

KATHRYN JAMES
CBM/Nossal Institute Partnership for Disability Inclusive Development

IPUL POWESEU
PNG Assembly for Disabled Persons

The project
In both developing and developed countries, very few road projects involve community consultation or evaluation in terms of the real impact they make on people’s lives. Roads are still assumed to primarily serve motorized vehicles, despite the fact that in most countries, the primary means of transportation is walking.

For people with disabilities, in particular, roads are necessary but dangerous. Investment in road infrastructure is necessary to improve access to education, markets, and health services. But according to the World Health Organization, road traffic accidents are also the second most common cause of death and disability in developing countries (and the third most common cause in developed countries such as Australia). How can roads be developed in a more inclusive way, in order to maximize safety and access for those most marginalized from public space and services?

“Travelling Together: Improving access for people with disability through inclusive road infrastructure development in rural and urban Papua New Guinea (PNG)” was a three year research project funded through an Australian Development Research Award, a competitive research grant administered by AusAID (the Australian Agency for International Development). The project was implemented from May 2010 to April 2013 by a wide variety of partners, including the Faculty of Architecture, Building and Planning; the CBM/Nossal Institute Partnership for Disability Inclusive Development (also based at the University of Melbourne, in the School of Population and Global Health); Cardno Emerging Markets (an international infrastructure development firm); and the PNG Assembly of Disabled Persons (PNGADP).

The project sought to answer four key questions:

- What are the barriers and facilitators for people with disabilities accessing roads in rural and urban PNG?
- What are the outcomes of rural and urban road projects on the lives of people with disabilities and their families?
- How have people with disabilities participated in rural and urban road planning?
- What are the recommended approaches in disability inclusive consultation and participation in road planning and development in PNG?

Travelling Together’s key principle was maximising the participation of people with disabilities at all stages of the research. The Assembly of Disabled Persons, the major national level coalition of disabled people’s local organizations in PNG, provided five teams of two ‘data collectors’ or field researchers (one female and one male) in the five research sites. The President of the Assembly acted as the PNG Research Coordinator, and there was a PNG Advisory Committee and an International Advisory Committee, which both included people with disabilities as well as government officers and researchers. The project sought to build the capacity of people with disabilities, both women and men, in order to promote ownership of the research and ensure they were able to advocate on the findings.

The Methods and Findings
PNG is still in the very early stages of urbanization, and only 15% of the population lives in large towns or cities. About 35% of the population live more than 10 km from a major road, and 17% have no road access at all. The majority of roads, including major roads, are impassable at least part of the year, due to flooding. The project decided to focus on three stretches or rural highways, and two urban roads, all of which were undergoing improvement. It was hoped that the research findings would influence road improvements to promote safety and access.

About 15% of the population, or one million people, have some form of permanent impairment. The 10 data collectors generally had mobility or vision impairments, but they also led discussion groups with children and adults with hearing and intellectual impairments, in order to gather a range of experiences.

Along with the discussion groups with 7–12 people with disabilities in each location, exploring how they used roads and particular barriers and enablers in accessing roads, the data collectors used three other methods. They interviewed two road decision-makers (one engineer and one local planner or politician) in each site, in order to ask about processes for planning and implementing road construction improvements, and their knowledge of use of roads by people with disabilities. They led ‘moveabouts’, in which the groups of local people with disabilities travelled along a small segment of the road and took photographs of specific issues regarding access and safety. As the final activity, they distributed disposable cameras and created posters with the participants of good and bad aspects of the roads, along with ideas of how they could be improved.

“Travelling Together” identified that people with disabilities in rural and urban PNG use roads extensively, primarily as pedestrians but also using local buses, to access schools, neighbours, shops, health facilities,
churches and to conduct livelihood based activities. While construction and maintenance of roads generally increased the ability of people with disabilities to access these essential services, key barriers kept them from using the roads comfortably and safely. These barriers include:

- Lack of marked crossings, even in busy areas such as schools or markets
- No footpaths, or narrow/dangerous footpaths, forcing people to travel on the roads themselves
- Narrow bridges with poor pedestrian access such as no ramps, again forcing people into the path of traffic
- Open drains alongside roads and poor drainage (a particular problem for people with vision impairments) resulting in large pools of water on footpaths and roads
- Potholed roads, which were difficult for people with mobility impairments to traverse, and which caused vehicle traffic to swerve dangerously onto the road verges
- No marked bus stops, and lack of amenities such as benches and shade at bus stop areas
- Lack of public and driver awareness of the need to drive at safe speeds through villages

Road decision-makers had no information on safety or access needs of people with disabilities, and in fact, there was no accurate or up to date information on road accidents and injuries across the country. However, there were high levels of willingness to consider issues of safety and access, provided clear guidelines were provided.

Next Steps

The research team found that the process of including people with disabilities as data collectors and co-researchers also assisted with the advocacy impact of the project, particularly in influencing both local and national road decision-makers. The research protocol used by the people with disabilities is easily transferable to other types of access issues (such as schools) or settings. Guidelines for both road planners and for designers/engineers have been developed and are being disseminated by AusAID and the PNG government. AusAID has recently developed universal design guidelines, and the project’s methods and findings helped influence that work. The PNG Government is in the process of ratifying the UN Convention on the Rights of People with Disabilities, which explicitly includes roads in the list of infrastructure which must be made accessible for people with disabilities, and the project’s findings have been incorporated into the Transport Strategy for that nation.

More information on the Travelling Together project, including the guidelines and research tools, can be found at this website: ni.unimelb.edu.au/inclusive_development/travelling_together_disability_inclusive_road_development_in_png

Dr Carolyn Whitzman is Associate Professor of Urban Planning in the Faculty of Architecture, Building and Planning.
Does architecture have a role in structuring the world in which we live, particularly when this is subject to urbanization pressures? Do architects contribute ‘constructively’ to the evolution of our cities, or is their action inevitably and overwhelmingly restrained, when not overcome, by factors external to their discipline? Can there be architecture without buildings and architects without architecture?

These questions and others were addressed at the Salt River Dialogues, a symposium organised by the University of Melbourne in collaboration with the University of Moratuwa, which was held in Sri Lanka on August 23–24, 2013.

The symposium, made possible by the generous support of the McIlwraith Fund at the University of Melbourne, was conceived by Professor Paolo Tombesi, Chair in Construction in the Faculty of Architecture, Building and Planning, Dr Milinda Pathiraja, a Melbourne University graduate and now Senior Lecturer at the University of Moratuwa, and his colleagues Varuna de Silva and Kollitha Perera.

The name ‘Salt River’ reflected not only the location of the event, near the mouth of the Bentota river, but also its aims. Estuaries are a significant trope in the physical and cultural history of the Lankan country, they are also a powerful metaphor for the fertile merging of intellectual currents and streams of ideas, as their territory is indeed created by the encounter of tidal movements and outward water flows. Similarly, it was felt that a proper discussion on the professional ecology of urbanization, which was relevant to Sri Lanka but could also learn from Sri Lanka, required the meeting of diverse experiences, coming from within the country as well as overseas.

Thus, over the course of two days, invited practitioners and academics from Sri Lanka, Australia, Brazil, China, India, Italy, Portugal and the United States engaged in public discussions exploring architecture’s complex relationship with city-making and building construction, trying, in the process, to chart the multiple social and technical basins within which this relationship ought to be navigated.

This was done by focusing on four themes that underlie the journey from ambitions to reality in the land of territorial development: the relationship between architecture and building fabric, the relationship between architecture and building systems, the relationship between architecture and spatial opportunities, and the relationship between architecture and human environmental rights.

Discussions were facilitated by panel structures that built on project materials purposely selected by the participants and presented to both the panel and the public to generate commentary and initiate dialogue.

The prestigious international group of speakers included Yung Ho Chang, founder of Atelier FCJZ in Beijing and professor of architecture at MIT; Michael Rotondi, one of the founders of SCI-Arc and Morphosis in Los Angeles; Jorge Carvalho and Teresa Novais, directors of aNC arquitectos in Porto; Arunava Dasgupta, from the School of Planning and Architecture in Delhi; Eduardo Ferroni, director of H+F Arquitectos and professor...
at the Escola da Cidade in São Paulo; Riccardo Vannucci, from the office of Italian FAREstudio; Peter Malatt, from Melbourne’s Six Degrees; and Timothy Hill, co-founder of Donovan Hill in Brisbane.

The architectural profession in Sri Lanka was represented on the panels by four of its most eminent practitioners: Vijitha Basnayake, Channa Daswatte, director of MICD Associates, Madhura Prematilleke from Team Architrave, and Hirante Welandawe from HW Architects.

The dialogues were held on the grounds of the famed Brief Garden, the small rural estate south of the capital Colombo, developed as an open-air mansion by Bevis Bawa (1909–1993) since the 1930s.

The generous yet intimate setting, carved out of nature and away from the hustle and bustle of the city, reinforced the broad conversational spirit of the Dialogues by allowing the threads spun in the specially erected outdoor pavilion – where the formal discussions took place – to continue amid the gardens, with students, practitioners and academics, during session breaks, lunch times and in the evenings.

The materials to build on included the refugee camp structures proposed by FAREstudio in Lebanon and Mauritania, the Himalayan village buildings developed and discussed by Arunava Dasgupta, the primary schools designed for the favelas of Sao Paulo by H+F Arquitetos and in the outskirts of Porto by aNC arquitectos, the rammed earth dwellings built by the University of Moratuwa in the north of Sri Lanka, or the recycled material residences at the centre of Vijitha Basnayake’s activity.

Interestingly, the analytical approach to the work adopted for the Dialogues revealed perhaps unexpected contiguities between these projects and the educational work of Six Degrees in Australia, the corporate structures and housing developments of Donovan Hill in Brisbane, the logics behind the work of MICD Associates in Sri Lanka, or the institutional buildings of Team Architrave and HW Architects.

In most of these examples, architecture came out as a strategic thinking device that could be made to work in different situations and at multiple levels, to organize urban relations, connect scales of industrial activity, generate physical opportunities, or suggest operational tactics in places where resources are scarce but needs are pressing.

For this to be the case, however, the message produced through the Dialogues was unequivocal: the relationship of architecture with construction must be clear, and form the basis for the courses of action selected. It is only through the thorough comprehension of the world bearing upon the practice and space of design that structural limitations can be turned into cultural opportunities.

Following the success of the initiative, the institutions involved have suggested that the Dialogues be turned into a periodic international event. Several of the participants have already expressed interest in hosting future editions of Salt River.
Bower 13 in the Top End

LOUISA RAGAS

The ninth studio in the multi-award winning Bower series, a sequence of Master of Architecture design projects, took off to the Northern Territory in September. Led by ABP’s Dr David O’Brien, with teaching support from George Stavrias and James Neil, 11 MSD students spent time with the remote Belyuen community, two hours west of Darwin. Working closely with this Indigenous community and with support from industry partners Yilli Rreung Housing, Arup Engineers, Stramit, Hudsons and the Centre for Appropriate Technology, the students worked with locals to construct a sheltered outdoor living area and kitchen for the Jorrock family.

This Bower project used one of the many options available from its HomesPLUS catalogue of prefabricated building kits. The HomesPLUS initiative is a new way to help assist communities looking to choose and participate in the construction of their own infrastructure.

“The HomesPLUS system is an important way to include Indigenous people in the development of their communities and households. It refuses to become a ‘top-down’ program, instead it builds Indigenous capacity through consultation and education to make the program valuable and sustainable in a number of ways” says David. “It’s more than a building exercise. We work together to make improvements to standards of living, education and health.”

Since 2008, the Bower Studios have helped design and construct houses, hauswins, salas, computer labs, an early childhood learning centre, community ablutions facilities and community centers, alongside ten partner communities in remote locations in Australia, Thailand and Papua New Guinea.

The partner organisations play a very valuable role enabling the Bower Studio to strengthen its relationships and build a purposeful team. “The industry partners have been specifically selected because of their expertise and are very generous benefactors. Likewise we are careful to work with progressive communities who are seeking new ways to move forward. It is a large team effort and requires everyone to think outside the square” explains David.

Before the on-site construction program, the students were taught construction techniques and ways to design and work alongside a local workforce. The students are also participated in a series of seminars on Indigenous culture and development and were challenged to think about the complex issues of housing sustainability and client aspirations in Indigenous communities.

The key outcome of the Bower 13 program saw the group working at the Belyuen Community for a 10-day period to construct a sheltered outdoor living area which incorporated cooking facilities for the family. Physically and mentally demanding, the Bower studios offer the architecture students a unique learning experience which extends their design and technical skills and, in some cases, leads to further engagement with Indigenous communities.

“The studio offered a rare opportunity to work closely with a remote Indigenous community,” says MSD student Zoe Diacolabriant. “To have the opportunity to engage, beyond the superficial, and build relationships with the Indigenous family, was an incredible experience.”

“Working in the community, and learning from the Jorrock family, was both eye opening and incredibly rewarding. It was so enjoyable working to build a physical structure, beyond the classroom, and actually making something real which clearly had an impact on the Indigenous family, who we were building with, and would make a large contribution to their lives.” says Zoe. “Gaining real skills in construction and the ability to work out on-site solutions with limited materials was challenging but so rewarding. There is almost no other way to understand the everyday life and circumstances faced by Indigenous communities without going and experiencing them yourself.”

Mia Hutson concurs, “For me, the Bower experience highlights the idea that architects can contribute to society in a meaningful way … However, I’m also
aware that good intentions don’t pay the rent and, in reality, the architects that I admire for their engagement with Indigenous issues - such as Paul Haar, Troppo, Merrima Design, Gregory Burgess and Healthhabitat - have to balance that aspect of their work with more typical architectural projects that bring money into the firm.”

The experience in consultation processes is something that is invaluable in practice, and on a broader level, the experience itself has fundamentally reframed my thinking with regards to my architecture. It’s been an interesting experience, getting a bit of window into a reality which seems so starkly removed from the concepts and theories which circulate within architectural discourse, and it has put a lot of my ideas about architecture into perspective.

“Our students have proven their capacity to transform the ways the architecture profession views Indigenous infrastructure projects – two students have won prestigious international architecture awards with their Bower Studio work,” notes O’Brien. “The Bower Studio projects are reshaping Indigenous development projects as they complete projects that prioritise the Indigenous voice, Indigenous values, Indigenous control and Indigenous agency.”

The Bower Studio appreciates the assistance of Yilli Rreung Housing, Arup Engineers, Stramit, Hudsons and the Centre for Appropriate Technology. The project was in part funded by the Rio Tinto Award for Indigenous Education.

Dr. David O’Brien practiced as an architect before joining the Faculty of Architecture, Building and Planning. He has since worked in community development projects with Indigenous communities in the Northern Territory, Western Australia, Queensland and internationally in Papua New Guinea and Thailand. He coordinates the Bower Studio projects to consult, design and build community infrastructure projects alongside community groups, government agencies, industry partners, engineers and sociologists.
Melbourne’s Liveability Ranking Under Threat

ALAN PERT

The notion of ‘liveability’ was being questioned in October at the University of Melbourne, this time with a focus on Melbourne’s housing strategy.

The Melbourne School of Design recently conducted a seminar with guest speaker Ian Gilzean, Scotland’s Chief Architect entitled “Towards a Housing Expo”. The public event explored the ideas and outcomes from Scotland’s Housing Expo in 2010, the opportunity of hosting a similar event in Melbourne and the urgent need to consider the relationship between architects, contractors, planners, politicians, as well as the building codes, which dictate much of what is built and the associated construction costs.

The notion of liveability has been widely contested over recent years following Melbourne’s consistent ranking at, or near the top, of a variety of Global indices. The issue with these rankings is the vagueness of the term liveability and the data used to determine a city’s Global ranking. All it takes is for the population to start to feel disenfranchised and the stability that maintains a position at the top of these tables begins to unravel. These factors have to be considered in the context of Melbourne’s predicted population growth, lack of infrastructure, ageing population, suburban sprawl and rising property prices.

Liveability or “to live”, as the seminar suggested, means different things to different people, determined by age, health, ethnicity, income and connectedness to the basic needs and desires of everyday life. Whether it be work, care, education or leisure time amenity we all perceive our place where we live can alter significantly. Liveability as such becomes a generalised term which, for a 26 year old in the CBD varies considerably to a family with little alternative but to move to one of the outer suburbs, where property in relation to family needs is more appropriately priced.

The key message coming from the seminar was the “lack of choice and lack of diversity” in the housing market and the opportunity to demonstrate an alternative to what’s on offer at the moment. “It’s a developers market right now dominated by a predominance of one and two bedroom flats in and around the City. The CBD is rich in character and urban grain but it is a very small part of a typical Melbournians experience of everyday life. Melbourne needs more family housing closer to the City, it needs neighbourhoods, which cater for young and old and a model of housing which allows a community to grow rather than constantly drift beyond the edges of our existing infrastructure. The idea of a housing expo is not new, its been tried and tested all over the world. Importantly it is not simply about the design of the housing but the procurement process, the supply chain and the collective endeavour that is required to demonstrate alternative ways of living. If we leave it to the developers the, market will be driven by profit and not choice.

The Scottish Housing Expo of 2010 was modelled on similar Finnish events where around 50 prototype houses are built in a bid to show off how innovative, sustainable and affordable housing can be built using locally produced materials. It has become a proven model for stimulating the construction industry to consider affordable high quality designs for high volume or mass housing, with more consideration about the place in which the houses are built.

The Expo provided government, builders, industry, housing associations and the community with an outlet to present, challenge and debate issues of housing delivery and construction.

The Scottish example has proven very successful in stimulating quality design and innovation but more significantly it was delivered in the middle of an economic recession by the government underwriting the value of the properties as a commitment to the broader housing agenda. Similarly any endeavour in Melbourne will require state government support to break from the norm and change attitudes to housing.

A Melbourne expo could then be a catalyst to prompt a similar kind of change by creating an exemplar community of housing and infrastructure while acting as a model for future housing design and development across the state.

The 2010 Scottish Housing Expo was about celebrating and sharing good design demonstrating that by building a permanent community and creating well designed, energy effective sustainable communities, where the built and natural environment is valued and enhanced for future generations is achievable. But it’s not all about importing ideas from overseas. There is much to be celebrated and learnt from Australia’s past as well as from some of Victoria’s contemporary practices that are grappling with inner city housing issues and the changing nature of “home”. Professor David Yencken attended the recent seminar and he has been a champion for the Australian environment and excellence in design. In 1965 he co-founded Merchant Builders Pty Ltd where, as Chairman and Joint Managing Director, he led the way in pioneering new project housing developments in Victoria that combined progressive architectural design and construction with native landscaping. Affordability was a key consideration for Professor Yencken back then and nearly 50 years later we are facing similar challenges.

I recently took part in the Victorian Architecture Awards and there are a number of very good examples of 6 to 8 storey medium density housing projects appearing in the inner city. Australia has a lot to share with the rest of the world especially at a time when other cities are in decline. Much work
has also gone into Policy Work that sets the framework for the renewal and development of the City of Melbourne, its Growth Areas, and its Regions and Rural land in the State of Victoria. A critical success factor for these new Policies is the need for the Middle Ring of Metropolitan Melbourne to accommodate significant population growth through the intensification of housing and mixed-use development. Failure in this arena will result in unsustainable pressure on the defined Growth Areas for affordable housing, and further pressure on the Inner Ring and City to absorb more apartment housing which may not be suitable or affordable for family living.

A Housing Exposition intended for the Developer Community, the State, Local Government, and the Public to see for themselves that family oriented, affordable, multi dwelling residential development and exemplary planning and design, can provide an exciting sustainable proposition for Melbourne’s population growth and sustainable future would seem to be worthy of significant focus at this point in time.

Melbourne is a city with an incredibly strong attitude to design and it requires a similar attitude to models of delivery and procurement for it to cement its position as a truly liveable city beyond vague statistics.

Professor Alan Pert is Director of Melbourne School of Design. This article was first published in the Voice, The Age on 11 November, 2013.

Image: Scotland’s Housing Expo 2010
Urban Greenery is most often seen as its trees and grassed parks, but it goes beyond that to green roofs, walls and facades, swales, rain gardens and waterways. The journey of urban greenery for Melbourne started with its trees.

The City of Melbourne announced its Urban Forest strategy last year setting out plans to secure the future of its urban trees over the next 20 years. The city currently owns around 77,000 trees, estimated to be worth of over $700 million. The future of these trees is under threat as a result of recent weather extremes, marking what appear to be signs of climate change. About 23% of the existing trees are expected to be lost within the next decade, increasing to 39% in the next two decades. Plans to increase the inner city population and further intensify building density add to this threat to the city’s trees.

Concerned with the plight of the city’s trees, the City of Melbourne collaborated with the University to find out what are the barriers and knowledge gaps required to increase the uptake of greenery in private sector projects. The targets set by the Melbourne Urban Forest Strategy are to increase canopy cover from 22% to 40% by 2040 of which no more than 5% will be of any one tree species. It is also planned that 90% of the City of Melbourne’s tree population will be healthy by 2040. These targets will be more easily met if the private sector participates by incorporating more urban greenery in both existing and new developments.

Two workshops were organised over the months of August and September where key stakeholder met with members from the City and the research team from the University. The findings from the workshop may be summarised along two themes. There are sufficient research findings internationally to support the adoption of greenery in building projects and in urban design. However, the business case for the private sector needs to be better established at the local level.

Recent research has emphasized urban greenery as more than just trees and parks in the city. Greenery plays a strategic role in making the city more sustainable. Plants provide essential biodiversity, ecosystem services, carbon sequestration and helps to reduce the Urban Heat Island effect. They cool the air, provide oxygen, remove harmful gases and dust, and keep the air moist. Plants are also essential for our health and well-being – increasing productivity in schools and offices, hastening recovery from illnesses, reducing stress, and increasing and alertness.

Urban greenery is often perceived just as a public amenity but there are many benefits in incorporating plants within the private sector as well. Greenery brings economic returns as a direct result of the social and environmental benefits it provides. The environmental and social benefits of plants, like improvements in air quality as well as benefits like higher productivity and higher sense of well-being, also lead to documented economic benefits.

Greenery contributes to the attractiveness and value of the location. Our sense of place is closely linked to the availability of greenery. The sense of well-being that greenery provides leads to improvements in productivity and creativity while reducing absenteeism. One study show a 12-15% increase in productivity while another study reported a 25% overall reduction in reported illness symptoms. Places with greenery are often regarded as destination places – places to be visited and enjoyed. As a result, shoppers are prepared to travel further, pay more for goods as well as parking, and stay longer in these places than in those without greenery. Properties in locations with greenery or are close to nature (e.g. parks, particularly those with water bodies) are shown to fetch higher prices and rentals of between 7 to 13%.

The health promoting effects of plants have been documented in hospitals, offices, homes and even prisons and affects both children and adults. Stress is a major cause of urban maladies like obesity, which leads to chronic diseases like diabetes and traumatic diseases like cancer and heart
disease. Landscaped streets and parks encourage mild and stress-reducing exercises like walking in the city.

These benefits point to a shift in evaluating sustainability at the city scale. Rather than an obsessive concern with energy consumption, water usage, carbon footprint and other measurable targets, the incorporation of greenery requires a more systems related understanding of sustainability. Many researchers are now calling for an evaluation of the city as an ecosystem. This shift points to two erroneous beliefs that are currently held: firstly, that natural ecosystems are to a large extent self-sustaining and in a self-perpetuating balance (and our cities are not), and secondly, that human beings do not behave in an ecological manner.

Ecosystems are neither self-perpetuating nor self-sufficient. Instead, all ecosystems rely on and feed into other ecosystems. Marina Alberti, Professor of Urban Design and Planning from the University of Washington, describes ecosystems as being ‘open, dynamic, unpredictable, and multiequilibria’. Ecosystem boundaries in nature are amorphous, as one distinctly recognisable ecosystem, like a forest, blends into another, for example, a river. Ecosystems are, in practice, conveniently defined boundaries established for academic study. The key to the resilience of any ecosystem is the maintenance of resource flows between ecosystems and within the ecosystem. The inclusion of greenery may result in higher energy consumption in one building but lower energy consumption for the city and vice versa. In terms of energy, the ecological approach does not identify energy consumption as a primary concern; rather it is its impact on the environment that is of concern (CO2, heat, pollution and so on).

Currently, in sustainable design, sites are evaluated independently and expected to meet the same goals, e.g. zero-energy. In ecological design however, the considerations of each site are dependent on neighbouring sites, which determine what resources are available and what wastes are recyclable. In ecological modelling, most of the inputs to and outputs from the site are linked to other sites, which will have their own ecological parameters. The obvious exception to this linkage to physical sites is the weather, which provides solar energy and rainwater. Air is recycled through greenery, which is in turn linked to a physical site.

The second argument is one that has emerged strongly from recent research: human beings need access to nature. Urban greenery provides much needed ecosystem services that are essential to our health and survival but even more than this, we gravitate towards places with greenery, valuing them more than places without greenery and relying on them for our health and well-being. Our behaviour is more ecologically determined than we are aware of nor acknowledge. The term ‘biophilia’ has been used to describe this affinity but this may be too weak a term to describe what is a fundamental need. Jack Forbes, former Chair of Native American Studies at the University of California at Davis, puts it more dramatically:

“FOR US, TRULY, THERE ARE NO “SURROUNDINGS.” I CAN LOSE MY HANDS AND STILL LIVE. I CAN LOSE MY LEGS AND STILL LIVE. I CAN LOSE MY EYES AND STILL LIVE... BUT IF I LOSE THE AIR I DIE. IF I LOSE THE SUN I DIE. IF I LOSE THE EARTH I DIE. IF I LOSE THE WATER I DIE. IF I LOSE THE PLANTS AND ANIMALS I DIE. ALL OF THESE THINGS ARE MORE A PART OF ME, MORE ESSENTIAL TO MY EVERY BREATH, THAN IS MY SO-CALLED BODY. WHAT IS MY REAL BODY?”

Fortunately, current research suggests that the meeting of this need, i.e. taking an ecological approach to sustainable design through the judicious use of greenery, leads us not only to a sustainable society but to a healthier and more attractive one. The further surprise is that incorporating greenery into our buildings and cities even makes good business sense, increasing productivity, visitors, and sales, leading in turn to higher property rental and sale value.

The outcome from these workshops is not just the need for more research but an opportunity for good design.

Research was conducted for the City of Melbourne by a group from Melbourne University led by Boon Lay Ong, Dominique Hes and Ole Fryd from ABP, Nicholas Williams, Stephen Livesley and John Rayner from MSLE and Lue Aye and Tuan Duc Ngo from MSE.
Animal Enrichment at Melbourne Zoo

NIAMH CREMINS

Zoos employ enrichment to provide animals with further opportunities for stimulation, both physical and emotional. An ABP Masters elective, *Digital Design Applications* has been engaged to help design and develop enrichment items for a variety of animals at Melbourne Zoo. *Digital Design Applications*, led by Professor Bharat Dave and David Lister, sees MSD students using digital design and fabrication technologies to address the sensory needs of tigers, capuchin monkeys and gorillas.

Enrichment items consider the welfare of captive animals in a holistic way. They assist by increasing their exercise, satisfying their natural behaviour needs, optimising the level of stimulation the animals receive and may be used to reduce abnormal behaviour patterns.

Students were taken on an investigative field trip to Melbourne Zoo in September, where they could observe animals in their own habitats and experts provided them with facts and anecdotal information to assist with their projects.

According to one student, Joel Collins, it was the site visit to the zoo that inspired his passion for the project. “We were intrigued when we saw the tiger. We watched his behaviour and felt that we could definitely design something to enhance the tiger enclosure and lifestyle.”

*Digital Design Applications* present the potential to mass customise design items by adding controls based on specific variables, for example the ability to adapt a model based on the age of the animal. Digital fabrication technologies at ABP’s Fab Lab allow for experimentation with textures and materials and enable flexibility and adaptation within the design. Melbourne Zoo encouraged the 20 students engaged in the project to be as creative as they liked. This was a chance for the Zoo to engage designers to think outside the box and create proposals that are completely unconstrained.

Enrichment items promote natural activity among the animals and aid mental, emotional and physical stimulation. According to Senior Scientist at Zoos Victoria, Michael Magrath, they are continually striving for better.

“There is a body of research that relates to each animal we house,” Michael said. “Students were asked to look at the information available, identify issues
specific to their chosen animal and devise novel enrichment items or activities to address them. We told them not to be reserved in their thinking. We can hone the ideas at a later stage when any potential prototype would need to go through a series of inspections to ensure their safety, usability and effectiveness.”

These special items can enhance the life of animals in a variety of ways: sparking their curiosity, exciting their senses, encouraging their natural stalking and hunting behaviour, or to combat disturbing or concerning behaviour.

During a presentation to the students, the Life Sciences Manager, Amanda Embury, outlined the potential. Supporting positive animal welfare outcomes is a primary consideration. Provision of food not only needs to provide appropriate nutrition, it has the capacity to promote foraging activity, develop problem-solving skills and support group cohesion. Provision of variation and choice is a further consideration. A firmly entrenched routine may result in the tiger pacing in anticipation of feeding time. As an intervention, the zoo designed a sensor-driven enrichment item which entices the animal to move into different parts of the enclosure by tantalising its sense of smell. The animal is encouraged to engage with other spaces like mounds and alcoves to break the pacing pattern.

This is a demanding project for an elective subject but one which the students are very passionate about. Joel Collins and Daniel Hazmy are developing a scratching panel, mound and cave, coupled with sensory objects for the tiger enclosure at Melbourne Zoo. They initially cut their schemes in foam and are now adapting the pattern for MDF and plywood allowing them to experiment with form and gain a better understanding of materiality.

“This has been an extremely rewarding project so far,” said Daniel. “We normally design for humans so we had to adapt our thinking somewhat.”

“This was about creating form,” Joel adds, “but unlike other projects, this had a purpose. It wasn’t geometry for geometry’s sake. We are always concerned with the end product and how it will work in reality.”

The University of Melbourne has an ongoing relationship with Zoos Victoria, which represents Melbourne Zoo, Werribee Zoo and Healesville Sanctuary. The University of Melbourne and Zoos Victoria share a commitment to build capacity as resources of expertise, information and education. A number of student and research projects have been developed under the partnership with the aim of building understanding and knowledge of the role of animals in society and contributing to public education.

Digital Design Applications enabled students to gain an understanding of digital design and fabrication programs with tangible outcomes and presented a unique way of developing designs that Melbourne Zoo hadn’t had access to previously. According to tutor David Lister, there is great testing potential with fabrication so a facility like the University’s Fab Lab is a logical choice for testing.

Most enrichment items are mass-produced objects from traditional fabrication methods. Architecture and design play a large role in zoos across the world. “You just have to look at the Penguin Pool at the Regent’s Park Zoo in London, the Snowden Aviary at London Zoo and Norman Forster’s Elephant Enclosure at Copenhagen Zoo, to see the potential for architecture and design in animal welfare,” said David.

“I can think of very few examples, however, where designers have really put their minds to enrichment objects but the potential is limitless.”

The students presented their ideas to the Zoo on Monday 18 November 2013 giving them the opportunity to talk through their ideas with senior researchers and animal welfare specialists. The designs will be kept on display for other Zoo staff to consider.

The prototyping and development of any enrichment tools the Zoo wish to use will require research and testing to ensure the safety of the animals, as well as a feasibility and cost evaluation. Amanda Embry, Life Sciences Manager, Wildlife Conservation and Science said that the exhibition is a great chance for staff to review the designs and start to think about what might work.

“There are enrichment items that are specific to a particular species but there may also be items that can meet the needs of a variety of animals,” Amanda said. “The potential to adapt design parameters to meet different needs without starting from scratch is a benefit of using the digital design applications approach so I’m interested to see how this could work in reality.”

*Digital Design Applications is a Masters level elective which focuses on how advanced digital modelling methods, such as visual programming and designing with algorithms, as well as digital fabrication technologies, can be applied.*
Collective Thinking: A SIBLING Practice

Today, the practice of architecture is less certain than it has ever been. There is no direct line of action between the creation of a building and the stroke of a designer’s pencil. There is no inviolable faith in the single artist. Indeed, the image of the heroic individual genius is anachronistic; a ghostly spectre of past principles and this is despite media fascination, even obsession, with stardom. However this phenomenon does not lessen the importance of design – far from it. Instead, architects and designers more than ever need to be strategic, smart and savvy about contemporary circumstances. There is a need to accept that many practices in architecture and design might be ephemeral and event-based, that they might take on the quality of installation art, that they might defy age-old preconceptions about permanence and materiality, and that they might cross over into other disciplines like graphic media, writing, landscape, digital re-imagining, industrial design or even the conceptual rethinking of ways of living and behaving. Design is always present. And the world is a giant studio.

Given such a complex and entangled, frequently aspatial, work environment, one technique for making a mark is to bring minds together, to collectively think through things and act, to make use of a network of minds, and by doing so effect innovation in practice – a sort of professional brainstorming (often over vast distances) where the radical is not only possible but an integral factor in maintaining a conversation’s vitality. This is collective thinking. This is SIBLING’s practice.

SIBLING is a design collective. As a practice it has produced projects as diverse as Dream Space Station (2013), a geodesic play pavilion exhibited at the Children’s Biennial at Fort Ruigenhoek in the Netherlands to APPS 101, SIBLING’s contribution to the Melbourne exhibition Critical Mobility (2011), where an analogue version of smart phone apps accompanied exhibit goers like a picnic of real objects. The energy of these guerilla tactics of design whose intent is the questioning of spatial norms has not gone unnoticed. Members of SIBLING have been invited to exhibit, write and publish and teach across Australia and internationally.

SIBLING’s gallery installation is be a retreat of sorts from the ‘on-off’ (mostly ‘on’) world of today’s reality. SIBLING have recreated its own version of the Faraday cage – albeit virtual – a gridded space within which one might reconnect to increasingly fleeting social practices like making things together with people or a phone-free lunch. It is a container for dis-connection and connection.

SIBLING’s activities revel in the prospect of counterculture. As a design collective, its existence at a time of almost hysterical relativism in architecture echoes the practices of SUPERSTUDIO, a collaborative group of radical young architects in Florence, which formed in 1966 and disbanded in 1978. The Italian design collective produced provocative collages, films, and exhibitions, and often fantastic images of negative utopias, expansive dystopian grids as critical warnings to the potential cataclysmic consequences of an uncritical contemporary architectural and urban culture. SIBLING’s practice of collective thinking is altogether less dystopic. Its outlook is more positive, its outputs hopeful and productive. Collaboration, social exchange, and a social and professional network that has the bonds and relational qualities of a family might offer today a compelling critique of the competitive and hierarchical nature of orthodox architectural practice. SIBLING’s agenda is political by its very subtlety. Prepare to be dis-connected to be connected. Turn off to be turned on.

This is an edited version of the essay published in the SIBLING catalogue.

Philip Goad is Chair of Architecture at the University of Melbourne. He was the founding Director of the Melbourne School of Design.
MSD Launches Digital Cities Program

RESPONDING TO A PROFESSIONAL NEED FOR MORE SPECIALISED DESIGN PROGRAMS, THE MELBOURNE SCHOOL OF DESIGN IS LAUNCHING A NEW POST-PROFESSIONAL DEGREE IN 2014.

The Master of Design – Digital Cities allows students to gain skills in new technologies to generate the design of 3D cities and understand how people interact with their urban spaces to create more liveable places. This program, under the direction of Associate Professor Justyna Karakiewicz, offers a unique perspective on the application of new technologies to the design of cities. The degree has been structured to take advantage of current trends in the built environment industry and new focus areas will be included each year.

Course Structure

You will undertake five coursework modules and complete a design research thesis.

Module 1: Design MAX (Research Methods)
In Design MAX (Research Methods) you will be introduced to a range of creative research methods. As distinct from traditional ‘quantitative research’ and ‘qualitative research’, ‘creative research’ is a relatively new methodology. This module will help you develop the ability to frame a design thesis question and identify appropriate creative methods through which to test it. You will then develop a creative research proposal of 2,500-3,000 words for your design thesis.

Module 2: Digital Cities Studio
In this module you will explore Space Syntax theory and practice. Space Syntax is a science-based, human-focused approach that investigates relationships between spatial layout and a range of social, economic and environmental trends including patterns of movement, awareness and interaction; density, land use and land value; urban growth and societal differentiation; safety and crime distribution. You will also learn how to use and apply City Engine, 3D modelling software for urban environments.

Modules 3-4: Digital Techniques for Urban Designers 1 and 2
In the Digital Techniques modules you will explore a variety of computational methods for city design, including cutting-edge techniques still under development. You will use a number of case studies to analyse design at the urban scale from differing perspectives. You will also be introduced to the basics of computer programming. The second module will concentrate on parametric design techniques. These modules will be taught by specialist staff from ARUP.

Module 5: Future Cities
Taught by Professor Caroline Bos and Richard Burdett you will learn all about diagramming techniques.

Digital Cities Thesis
Using the creative research proposal you produced in the Design MAX (Research Methods) module, your thesis will be the culmination of your studies in the Master of Design. You will need to demonstrate an original approach to design synthesis, based on research and critical thinking and the application of digital techniques you have learnt on the program. You will need to demonstrate mastery of design resolution, conceptual engagement and aesthetic expression within a digital domain.

An impressive local and international line-up of practitioners will be teaching into the program including: Professor Caroline Bos (Co-Founder and Principal Urban Planner, UN Studio Amsterdam), Professor Richard Burdett (Professor of Urban Studies, London School of Economics and Political Science), Brigitte Buchholz (specialist in urban design and data representation), Jon Morgan (specialist in urban wind and lighting), James O’Donnell (specialist in parametric design), Paul Stanley (specialist in agent-based people simulation), Ben Cooper Woolley (specialist in city modelling, 3D real-time).

For further information on the Master of Design: Digital Cities and how to enrol visit: www.msd.unimelb.edu.au or email msd-info@unimelb.edu.au.
Over two cold wintry days when the wind and rain beat down on her modest house steeped in family history, on the clifftop above Ranelagh Beach, Port Phillip Bay, Victoria Grounds (B.Arch. 1972) generously told Judy Turner her story. Photos are by Judy and B.Envs student Rebecca Rigby.

What happens when a girl with a design bent has a father living and working in Melbourne with a massive reputation as a leading Australian architect? She studies architecture, of course, then quickly escapes to Sydney to work with leading landscape firm Bruce Mackenzie and Associates and then to Canberra, where she spends most of her working life. Fast forward some thirty years and the same daughter, now with a daughter of her own, learns that the house into which she was born, designed by her famous father for her then equally famous mother, Mrs Betty Ramsay, is on the market? Naturally she rushes off to see it again, falls in love, and after a long series of accidents manages to acquire it. Victoria tells me that contrary to appearances in the middle of June, the clifftop house is warm and cosy, in fact it’s the most comfortable and most practical house she has ever lived in. She puts that down to good design and good vibes, which it has aplenty. A place where two well-connected, well-established and well-married people fall in love and decide to quit families and reputations to set up together has got to have a Forsyte saga feel to it, though in the case of Roy and Betty it’s a story with a much happier ending.

The house is part of the Ranelagh Estate – a small sub-division from the 1920s designed by the Griffins and “envisaged as a place where professional people would build their holiday houses. Purchasers were encouraged to buy double blocks and the total number of purchasers was envisaged to be about 400. Sale of allotments started in February 1926. With its distinctive long curved roads, recreation reserves, communal facilities and spacious triangular traffic islands, it is a fine example of a residential subdivision designed to harmonise with the topography and indigenous vegetation of the area. The Ranelagh Estate is commonly credited with being the birthplace of Melbourne’s modern movement.” [Recognising the Heritage of Ranelagh – Conservation Management Plan, July 2009, Context PtyLtd]

The Betty Ramsay house was not Roy Grounds’ first contribution to the Ranelagh Estate, in 1935 he had built an experimental house which ever since has been fondly known as “The Ship”. In that house, Roy eschewed the popular New England style of seaside house to build something economical, contemporary, using modern materials and meeting modern needs.

At around that time, Mr Tom Ramsay had contracted the same “dashing young architect” to put a second story on the Ramsay house in Toorak – including children’s rooms and quarters for a nanny. The unexpected outcome a few years later was a change in marital circumstances for all protagonists. According to Victoria, Mrs Tom Ramsay – later to be Mrs Roy Grounds – was a practical woman who had run her own couturier establishment in Collins Street with Zara Holt (nee Dickins). The house remained hers after the divorce, and Betty moved to Mount Eliza to spend the war years there. The isolation must have been intense, but as Victoria says, her mother was a part of that generation that “just got on with things”. Roy spent the years of the war in the South Pacific with the RAAF and when he returned to Australia they lived together in the Mt Eliza house until the mid-50s when Betty sold the house to …… drum roll…… Roy’s partner Frederick Romberg, who had always loved and admired it, and whose first wife Verena Romberg continued to live there until her death around 2006.

When visiting the beach house, Victoria’s two half-brothers – the Ramsays – were like heroes to her, and treated her with
the disdain appropriate to the age and gender gap. Their school holiday visits were very exciting times, with treks up and down to the beach right below the house. A special room was designed for Victoria off the western end of the house, with its own “stable” door so she could be shut in! Fortunately she got to share the one bathroom and the “throne with the best view in Australia”. The ti-trees that surrounded the house provided beautiful shade in summer, and explained its unorthodox orientation. Sadly sometime in the Romberg era they disappeared, maybe through old age, or perhaps a lost battle with erosion and wind.

The block’s steep slopes provide an ongoing challenge to Victoria and her neighbours, and living on the cliff edge – at a proximity to the cliff that would not be permitted under current planning regulations – gives her both great joy and continual stress. Wondering if she will wake up on the beach one day occasionally interrupts her sleep, but the sound of the waves and the wind are there to counteract Victoria’s anxiety. On the upper level, Roy’s solid wooden shutters instead of glass windows are an economical design feature, while the floors are in Victorian ash that gives off great warmth. On the ground level the floor is of terracotta tiling on a concrete slab, providing warmth in winter (passive solar effect) and cool in summer months. My own favourite feature was a giant army ordnance map of Port Phillip Bay, cut out and coloured by Roy for his own and the kids’ enjoyment, and stuck onto the ash lined wall at the eastern end of the ground floor living area.

The house is full of these delightful details in which Victoria takes great pride, and which give her joy every day. Replacing all the windows (in various stages of decay) with new timber windows in keeping with the original is her current project. But Victoria sees herself working on this labour of love for as long as she is able. With her talents, knowledge and skills she is uniquely qualified to look after this little treasure for posterity. In a moving postscript, Lady Grounds, the previous Mrs Betty Ramsay, outlived both her husbands and lived just long enough to see her original beach cottage return to the family when her daughter Victoria acquired it.
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The Faculty is also indebted to the many visionary corporations, groups and individuals who have already contributed towards our Faculty target of raising $20m towards the new Building. The following people have pledged the amounts listed below, since our fundraising commenced.

$500,000 or above
Hansen Yunchen Pty Ltd
& The Peter Hansen Family Trust
Andrew Lee King Fun

$100,000 - $499,999
BEP Arkitek in memory of Kington Loo
Hijjas bin Kasuri & Angela Hijjas
Alain F C Chee
Koh Seow Chuan
Alfred H K Wong
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$50,000 - $99,999
Marian (Lotban) & Guy Paynter
Peter H Lovell & Kai Chen
Tan Pei Ing
Daniel T H Teo & Goh Soo Khin

$10,000 - $49,999
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$1,000 - $9,999
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Up to $999
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Francesco Falvo
Jeffrey J Frith
Philip J Goddard
Dale Godfreyson
Lisa J Gray
David Gutzmer
Chris J Harvey
Katharina V Hayes
J H Holdsworth
The Faculty of Architecture Building and Planning greatly values the generous support from alumni, friends and industry partners which helps to create opportunities for our talented students.

As a Faculty, we are committed to ensuring that our students – the next generation of built environment professionals – understand the need for sustainable solutions in the creation of urban centres. Now more than ever we have an opportunity to make a significant impact on our environmental and social futures by managing urban change.

But how do we do this? One key way is by ensuring that our students develop interdisciplinary knowledge, where sustainability principles are embedded as a way of thinking and collaboration is the preferred mode of practice. To achieve this it is clear we must create a new, flexible academic space and an inspirational, world-class curriculum.

We are creating a new building for the Faculty which will be unique in Australia. It will be a centre of transformational education and research into sustainable cities and an exemplar of sustainable infrastructure. In particular, it will allow students and researchers to explore sustainability issues across multiple disciplines in a living and pedagogical building that can be adapted to changing needs, designed to provide feedback to students and researchers for real-time learning. The facility itself will be a platform for training our future leaders engaged in planning, designing and constructing cities and communities here and abroad.

We invite you to support our endeavours. By supporting our community of students and researchers and our building project, you are making a significant investment in the educational, environmental and economic health of the built environment professions for future generations.
YES! I want to support the Faculty of Architecture, Building and Planning, University of Melbourne through my gift of:

Please establish a recurring gift (Visa or MasterCard only):

- $20
- $30
- $50
- $75
- $100
- $250
- $500
- $1,000
- Other $  
- Annually for: 1 year  2 years  3 years  5 years

Here is my single gift of:

- $100
- $250
- $500
- Chancellor’s Circle
- $1,000
- $2,500
- $5,000
- Other $

Name:  
Address:  
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Enclosed is my cheque or money order  
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Account Number

Expiry Date  /  CCV

Name as appears on card  
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Please direct my support to:

- New Building
- Scholarships
- Research
- The Faculty's Highest Priorities
- University’s Highest Priorities

In publications and donor honour rolls, I/we wish my/our name to read as follows:

OR

Please do not publicly acknowledge this gift.

I am considering leaving a bequest to the University and would like some further information to be sent.

Please return your form to:

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Tel: +61 3 8344 1751 Fax: +61 3 8348 0013
Email: gift-processing@unimelb.edu.au
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Donations of $2.00 or more to University of Melbourne initiatives in Australia are tax-deductible for Australian tax payers. ABN: 84 002 705 224

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Appeal code: GEN01

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**Senior ABP Alumni Reunion**

"THE REUNION GAVE ME THE OPPORTUNITY TO SEE 5 OR 6 OLD FRIENDS FROM UNIVERSITY WHO I THOUGHT I WOULD NEVER MEET AGAIN."

Howard Hodgens' (1955, 1972) sentiment summarises the feeling of the Faculty members who attended this special reunion on 18 November at University House. The event for alumni with 50 or more years since graduation was attended by over 50 alumni and featured a presentation on the Australian Encyclopedia of Architecture by co-editors Professor Philip Goad and Professor Julie Willis. Before the reception, many heard a presentation by John Wardle and Nader Tehrani [JT] and viewed the impressive progress of the new Faculty building.
Advancement Events – Been & Seen

Faculty Supporters’ Bus Tour

One beautiful spring day in October, a group of Faculty donors and supporters enjoyed a unique day out touring Melbourne University’s newly restored Newman College, with guides Jeff Turnbull and Richard Falkinger, and visiting Macgeorge House with Professor Philip Goad. This arts and crafts house in Ivanhoe belongs to the University of Melbourne and is used for artists and writers in residence. Check out the pictures below – A, B & F.

Campaign for the University of Melbourne

Advancement Director Judy Turner travelled with ABP Dean Tom Kvan, Vice Chancellor Glyn Davies and a group of University leaders in September to promote the University’s fundraising campaign in four cities. They had the chance to enjoy the company of many Faculty alumni as pictured below in Images C, D & E.
Inside the Faculty

NEWS

Architecture alumnus, architect and MSD studio leader, Dennis Prior completed a Master’s degree in the History of Art at Oxford University in 2011—2012, exploring the relationship between artistic and architectural practice. He earned an overall distinction for his work, and in early 2013 Dennis was awarded the prestigious Association of Art Historians National Dissertation Prize for the best graduate research in the UK.

The Scottish Government’s Architect Ian Gilzean visited the Faculty in October on the invitation of MSD Director Alan Pert. Ian met students and colleagues and presented a public forum on housing provision to local practitioners. Ian was behind the highly successful a 2010 Housing Expo in Scotland, a model which has led to innovation in housing design and delivery.

Alan Pert’s architectural practice NORD (Northern Office of Research & Design) was awarded the 2013 Doolan Best Building in Scotland Award on 7 November. NORD’s project involved the conversion of a rundown Edwardian workshop in Glasgow, WASPS South Block, into artists’ studios.

Congratulations to Alan March who received professional acknowledgment for his book The Democratic Plan: Analysis and Diagnosis, winning a ‘Cutting Edge Research and Teaching’ award at the Planning Institute Australia (Victoria) Planning Excellence Awards on 11 October.

Donald Bates participated in the Large Screens and the Transnational Public Sphere Symposium at Federation Square on October 17. The symposium is part of a five year ARC Linkage project partnering the University of Melbourne, the Australian Council of the Arts, Federation Square and Art Centre Nabi (Seoul). Donald also participated in the Victorian Premier’s Super Trade Mission to China, delivered keynote talks at industry forums in Tianjin, Changzhou and Shanghai, and led tours of recently LAB Architecture Studio projects in Wujin and at the 8th Chinese Flower Expo.

Philip Goad and Kate Darian-Smith presented papers at London’s Royal Academy of Arts on 1 November, at an event celebrating Australian identity and the exhibition ‘Australia’, the largest collection of Australian art ever to be shown in Britain.

MSD student and AusAid scholarship recipient Hoang Van Anh was part of the team who won first prize in the International Tropical Architecture Design Competition 2013. Initiated by the Building and Construction Authority of Singapore (BCA), the Singapore Institute of Architects (SIA) and the Singapore Green Building Council (SGBC), the competition was open to architecture students from universities around the world and focused on building design solutions.

Alumnus Kenneth Ko has received a ‘Lifetime Achievement Award’ from the Hong Kong Interior Design Association for his passion, commitment and success in the design profession. Mr Ko accepted his award at a special function in Hong Kong on November 29, 2013.

NEW BUILDING PROJECT

Following the commencement of main works in April 2013, our new building has risen rapidly before our eyes. We can now see John Wardle Architects and NADAAA’s elegant and detailed design taking form in the centre of campus, and can sense the landmark teaching, design research and cultural centre that it will soon become. Construction is currently ahead of schedule, from a whole of project perspective, following an intense schedule of works over winter and spring. The lift and stairwell precast concrete core have reached their full height at level 5. The wishbone beams, which will be an architectural feature in the library ceiling, and sloping ground slab have been poured. The Joseph Reed façade support columns are now encased in concrete and attached to the new building. Precast off-form white concrete façade panels have been erected as part of the level 2 upstand beam structure and the level 2 slab has been poured on the south and north sides of the building. It will be exciting to witness the construction over summer. Stay across the project and view timelapse vision by visiting: www.abp.unimelb.edu.au/blog
Joao Nunes of PROAP, the Portuguese landscape architecture and urban design practice, delivered our final Dean’s Lecture of 2013. Joao talked about the theoretical underpinning of a range of PROAP projects created over the past fifteen years. On the subject of time and landscape, he presented a compelling call for palimpsest-based approaches to large scale planning, urban and landscape regeneration projects.

Alumnus Peter Wilson, the 2013 Australian Institute of Architects Gold Medalist, presented a sold-out lecture on October 16 in the Sidney Myer Asia Centre, as part of his national AIA tour. Peter described his design approach, taking us from his architectural studies at the University of Melbourne, to his years in London and the establishment of his successful international practice, Architekturbüro Bolles+Wilson, based in Germany.

Susan S. Fainstein, a Senior Research Fellow in the Harvard Graduate School of Design visited the Faculty with her colleague and husband Norman Fainstein in October and delivered a number of talks on the topic of urban redevelopment and the need for greater justice at the local level. Susan is the author of The Just City published in 2010 by Cornell University Press.

The GAP 2013 Reykjavic exhibition, featuring architectural projects from Iceland, ran in the Wunderlich Gallery in October. The annual GAP exhibitions provide given students in the Bachelor of Environments degree the opportunity to engage with contemporary designers across the globe and present their work in ABP.

A special event to celebrate the life and achievements of alumnus George Tibbits was held at the Ian Potter Museum of Art on November 7. George graduated in Architecture from the Department of Architecture and Building at the University of Melbourne in 1962. After working as an architect in London and Melbourne, Tibbits returned to the University to teach architectural history from 1968 until 1995 and gained a national reputation in teaching and research unparalleled in Australia. Tibbits was also a contemporary Australian composer, writing more than 40 individual compositions.

MSDx is the annual showcase of graduating design students from the disciplines of architecture, landscape architecture and urban design. The November exhibition, installed in the South Lawn underground carpark (famous as being a location in the iconic Mad Max film) featured over 200 works by MSD thesis students and exceptional design projects from Masters Studios C, D and E. The opening party on November 14 featured live music and a bespoke bar designed by a group of students.

Jane Rendell, Professor of Architecture and Art at the Bartlett, delivered an inspiring lecture on “site-writing” on 2 December.