

8th Making Cities Liveable Conference

Liveable Cities for the Future

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**Speaker Abstracts are in alphabetical order*

Mr Tim Adams

Principal, F2 Design

BDAV 10 Star Challenge- Rationale, Results and driving client expectations towards off-grid houses

The BDAV 10 Star Challenge was conceived by Tim Adams as an initiative at the commencement of his term of BDAV President in October 2010. It has now had 4 successful years of encouraging building designers/architects together with energy raters to carry out research and design development into what it takes to arrive at fully passive dwellings in Australia that do not need heating and cooling as defined by NatHERS energy Rating Tools.

Before floating the concept of the 10 Star Challenge, Tim designed a 3 bedroom family house in the Melbourne climate that achieved 10 star performance to confirm that the goal, despite scepticism from others, was even possible.

In 2012, '10 Star House Done Dirt Cheap', submitted by F2 Design, was a judged a joint winner of the multi-unit category. It is a simple, efficient and cost effective design that, as well as achieving the holy grail of energy performance, provides maximum facility from a constructed volume. Subsequent entries in 2013 and 2014 have been named as finalists.

Submissions to the Challenge by others have demonstrated ground breaking work including a house design in 2013 that could be adapted to reach 10 stars in every state a territory capital around the country.

The result of the program was never anticipated to cause a proliferation of 10 star houses, but it was clearly envisaged that building design professionals who equipped themselves with the knowledge of what it takes could then deliver 7, 8, and 9 star examples with ease at extremely cost effective levels.

The research benefits coupled with recognition of living in 'The House with No Bills' (Renew ed 120) has caused a growing number of F2 Design clients to demand higher performance houses involving off-grid solutions in urban settings.

Mr Charles Agnew

Program Lead Water Resources, Sydney Water

Integrated water management: A path to more resilient cities

Sydney is predicted to grow at a phenomenal rate with an additional 500,000 homes and 1.3 million people expected by 2031.

Sydney Water is focussed on enhancing liveability for customers. This does not diminish the importance of delivering high quality drinking water and reliable wastewater collection and treatment. Considering liveability in delivering water solutions is complex. It requires us to be much more engaged with customers to understand what people in different areas want as opposed to what we know they need.



During the last drought significant resources and expenditure were devoted to reducing potable water demand through recycling, water efficiency, leak management and restrictions. We also know the impact on liveability in Sydney was significant. We are now rethinking the way we manage water demand in and out of drought in the future. Our approach is evolving to consider the social, environmental and economic outcomes that can be achieved through programs that promote water use efficiency.

Currently, there is limited integration in the management of different parts of the water cycle by Sydney Water and other stakeholders. Some areas can easily be improved while others require institutional, financial and community acceptance barriers to be overcome. We are piloting approaches to working more collaboratively with other water cycle managers to improve urban water quality and amenity.

Thanks to existing legislation new homes and additions in NSW are water efficient. We are working with urban planning agencies to transition towards water sensitive precincts. We want to house people in areas that don't increase flooding and pollute waterways. We want to create new communities that capture water in the landscape to provide passive cooling to the most vulnerable members of the community.

This paper discusses how Sydney Water will manage the entire water cycle differently to support liveability.

Dr Thomas Astell-Burt

Senior Lecturer in Public Health and the Director of the Master of Public Health and Health Sciences, University of Western Sydney

Is liveability associated with physical activity and dietary behaviours? Developing and validating a set of national liveability indicators

Purpose: Fostering 'liveability' is growing as an aspiration of city planners globally. Liveable communities also create the conditions to optimise health and wellbeing outcomes in residents: e.g., neighbourhood walkability and access to public transport, public open space, local amenities, and healthy food options. The Australian Prevention Partnership Centre: Liveability Study seeks to develop a national set of liveability indicators: (a) aligned with state and federal urban policy; (b) using readily available national data; (c) standard and consistent over time; (d) suitable for monitoring progress towards creating more liveable, equitable and sustainable communities; (e) validated against selected chronic disease risk behaviours and health outcomes; and (f) practical for measuring local, national and federal built environment interventions.

Methods: Over 2 years, the Liveability Study, funded through The Australian Prevention Partnership Centre will develop and validate a national set of spatially-derived built environment liveability indicators (including those related to physical activity and dietary behaviour). Geographic Information Systems measures developed using national data will be compared with finer-grained state-level data, which have been validated against selected health behaviours and outcomes. Finally, we will explore the creation of a national database of built environment spatial indicators.



Results: A national advisory group comprising stakeholders in State and Federal government, Federal non-government organisations and state-based technical working groups located in the ACT, Victoria, NSW, Queensland, and WA has been established; a policy analysis is completed, and agreed work programs are finalised. Preliminary findings from the NSW-led indicator development for food environment will be reported.

Conclusion: This project seeks to build the capacity for built environment and health systems research in Australia, by developing national spatial indicators to monitor progress towards creating healthy and liveable communities. Issues related to policy-relevance and accessing consistent national spatial data will be discussed, as well as opportunities for future research.

Mr Brendon Baker

Principal Manager Customer & Product, Transport for NSW (Sydney Rapid Transit)

Connecting Sydney through new rapid transit

On 10 June 2014, NSW Premier Mike Baird announced 'a once-in-a-generation assault on the urban congestion that has frustrated employers, workers and families in Sydney for decades.'

A key element of this announcement is a new rapid transit rail network, including a Sydney Harbour rail crossing that will unblock a major train bottleneck and transform Sydney.

The 30-kilometre Sydney Rapid Transit (SRT) project will extend the North West Rail Link, delivering a new public transport system through the CBD and on to Bankstown.

Sydney Rapid Transit will connect our strategic centres to drive economic growth and productivity, reducing journey times and ensuring more people live closer to services and to where they work. It is anticipated that Sydney Rapid Transit will be breaking news in July 2015 providing a unique opportunity to discuss the rapid transit concept and its potential as a catalyst for connectivity, urban renewal, and great places around future transport nodes.

Ms Emily Ballantyne-Brodie

PhD Researcher, Sustainable Everyday and Politecnico di Milano

Convivial Food City: Growing, Delivering and Enjoying Local Food Systems

"Ideas for de-institutionalising education may be a starting point for a de-institutionalised society"
Ivan Illich

The local food movement is a grassroots effort to deinstitutionalise the food system and our society. The everyday actions of eating, growing and enjoying our food can have profound social, political and economic implications. The Creative Communities movement as defined by (Meroni 2007) illustrates promising cases of citizens and communities taking back control of their lives through simple everyday life actions in relation to food, transport, housing and learning.

A challenge for the Creative Communities movement is to work out ways to diffuse initiatives like community gardens, local food box delivery services and community dinners in unlikely places.



This paper argues part of the answer to spreading the Creative Communities movement lies in the convivial approach and design-led methodology used to implement these intuitive and creative projects. Case studies such as Docklands Convivial Garden, Shepparton Food Hub, Dandenong Food Strategy and Grow it Local projects will be analysed and their convivial methodology will be highlighted to illustrate possible approaches to design localised food systems and connected communities in cities.

These inspiring grassroots food initiatives and projects reveal how citizens can reinvigorate communities, improve their health and wellbeing and repair the environment.

Ms Kirsten Bauer

Director, ASPECT Studios

Co-author: Mr Warwick Savvas, Senior Associate, ASPECT Studios

Living Architecture for Resilient and Liveable Urban Density

Living Architecture (green roofs, walls and facades) has the potential to significantly contribute to the liveability of our dense urban cities. While there is much exemplary built work and research into living architecture in tropical and sub-tropical environments, the reality of living architecture in Melbourne and other dry and windy Australian cities is substantially different.

The City of Melbourne along with other inner city local councils has instigated the 'Growing Green Guide' which is an excellent policy and technical base for encouraging living architecture. Alongside this there is increasing demand for living architecture and green amenity from the public and buyers. However, overcoming the realities of translating demand, policy and the technical challenges to enable widespread uptake of living architecture in Melbourne is the next step.

This presentation will focus not so much on the policy and vision of living architecture, but what the reality of implementation means for, councils, developers, property owners and residents. It will and provide insight from experience in translating the vision through the nitty gritty of delivery.

We will present project examples of living architecture implemented in Melbourne, including the issues faced, the successes, the costs and discuss the financial, economic and social benefits that accrue. More importantly we will identify some of the barriers to implementation and illuminate how these could be addressed in the Melbourne context.

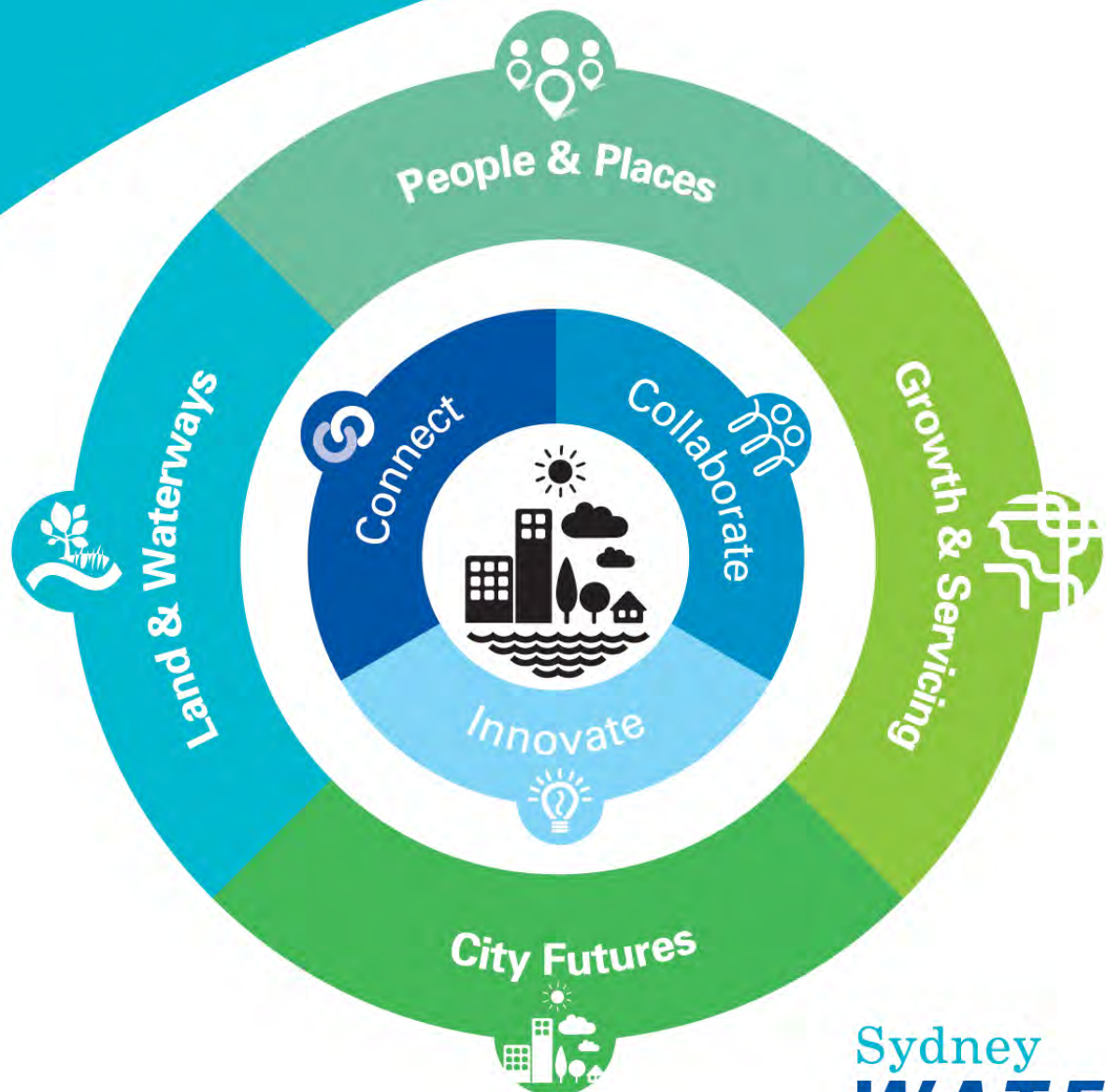
Finally we will introduce a potentially useful framework for assessing the costs and benefits of living architecture to encourage more widespread successful implementation of green roofs, walls and facades in Melbourne.

Enabling vibrant

neighbourhoods, communities & cities

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Sydney
WATER



Mrs Michelle Blicavs

CEO, IAP2 Australasia

Engaging Our Communities

The International Association for Public Participation (IAP2) is the leading organisation advancing the practice of public participation and community engagement around the world. IAP2 promotes the value of developing and implementing engagement processes to inform better decisions that reflect the interests and concerns of potentially affected people and entities.

This is particularly relevant when planning for liveable, active and healthy cities. In this presentation IAP2 will share its public participation spectrum to highlight the levels of community engagement available to decision makers, provide case studies where this has led to the successful implementation of significant urban projects and offer tools/techniques for engaging communities throughout any planning process.

IAP2's Core Values and Spectrum for engagement are recognised and embraced by many government agencies- as leaders seek to ensure policies are developed to meet the needs of their communities. This was seen recently in the discussion around the NSW Planning legislation, which is expected to include a community participation plan for strategic planning instruments.

Case studies in this presentation will include the Brisbane City Council/Transcity Joint Venture project Legacy Way a \$1.5 billion project designed to tackle inner city traffic congestion and the City of Geraldton #ChangesCGG project, which engaged around 3000 residents to have their say on the future of the City. Both projects were 2014 winners of the IAP2 Australasia Core Values Awards. Presenter Michelle Blicavs has a background in public transport, small business and the community sector. With 25 years management experience, Michelle is now the CEO of IAP2 Australasia- encouraging community engagement across all sectors both public and private.

Dr Seona Candy

Research Fellow: Sustainable Food Systems, Victorian Eco-Innovation Lab (VEIL)

Foodprinting Melbourne: where does Melbourne's food come from and what is the value of peri-urban agriculture?

Food security is a growing global concern due to population growth, resource scarcity and climate change. It is of particular concern in cities where other population needs such as energy, transport and housing are in direct competition for local and regional resources that previously were used to produce food. Currently, however, there is little information available to local councils about the value of these resources for different purposes.

This paper outlines the first stage of a project investigating the sustainability and resilience of the food supply for Melbourne, Australia. The aim is to investigate where Melbourne's food comes from and the percentage that comes from the local or regional area. Conclusions are then drawn about vulnerabilities in the food supply that can be used by policymakers to make better informed decisions about land and resource management.



Mrs Melanie Chisholm

National Manager, Healthy Hearts, National Heart Foundation

Co-author: Ms Kath O'Donnell, National Policy Advisor, Active Living, National Heart Foundation

Plan together and make it happen: A collective impact approach to tackling a wicked problem

A liveable, active and healthy city can become a reality when all levels of government and the community collectively work together towards its achievement. This is the belief of the National Heart Foundation in bringing together a team of experts and academics to detail WHY this is imperative and HOW to do it.

The Blueprint for an active Australia articulates an approach to increase the physical activity levels of all Australians to improve heart health. In a world first 48 experts, researchers and academics from institutions all over Australia came together as authors to write the Blueprint free of charge and sole authorship claims. The shared impetus was the collective desire to impact positively on the health of all Australians.

The current focus of the National Heart Foundation includes 4 key action areas, namely built environments, workplaces, active travel and prolonged sitting. Physical inactivity alone contributes to almost one quarter of the burden of cardiovascular disease in Australia (24%). We know that reshaping the built environments in which most Australians live, work, learn and recreate can significantly increase daily physical activity levels in addition to a plethora of co-benefits. The challenge now for the Heart Foundation is to convince the community and all levels of government of the importance of physical activity and healthy cities.

The approach to dissemination and advocacy includes:

- Systematic national distribution of the Blueprint through promotion, direct marketing, electronic and hard copy distribution.
- Promotion of the Blueprint and/or key action areas and strategies at every opportunity to rally the call for a funded physical activity strategy
- Development and support of partnerships specifically with peak bodies and organisations to work together to progress strategies
- Commitment to evidence and review, providing expert advice, the right tools and measuring impact.

To review the Blueprint for an Active Australia go

<http://www.heartfoundation.org.au/SiteCollectionDocuments/Blueprint-for-an-active-Australia-Second-Edition.pdf>



Ms Sarah Cleggett

Social Planner, Adelaide City Council

Disability Access and Inclusion for a Vibrant City

This paper aims to examine tensions between the achievement of access & inclusion for people living with disability and the promotion of vibrancy in a city context. It references two approaches to 'place', the first is Placemaking, an approach made popular through the work of the Project for Public Spaces in the US and widely adopted by councils throughout Australia. The second is the notion of resilient places, as described by Runswick-Cole and Goodley, 2013. In particular, this paper draws on the experience Adelaide City Council has had with promoting and facilitating both social inclusion for people with disability and city vibrancy through a placemaking approach. It identifies tensions between the promotion of 'vibrancy' and the achievement of disability access and inclusion. It then describes a process of collaboration aimed at integrating the two goals within four key case study projects across the Adelaide City Council local government area.

Both the placemaking and resilience models encourage consideration of places and people as whole, interconnected entities. Additionally they recommend observation of who isn't part of a place and interrogation of why that might be, rather than accepting that particular people or groups simply choose not to participate. The basis of the placemaking approach is to involve people in the design of places and experiences. The resilience model states that it is not an individual's personal strength and ability, but instead the resources available to them that enable full participation in life and the community.

Both models support the notion that without specific consideration of the features of good places - in this discussion defined through place capital and resilience models - marginalised groups will remain excluded.

The example of Adelaide City Council demonstrates that the integrated use of resilience and Placemaking models can facilitate inclusion of people with disability in the vibrant culture of the city.

Ms Tania Crosbie

Director, Crosbie Collective

Study shows that engagement is key for energy efficiency initiatives in apartments

Across Australia more and more people are living in apartments. Positive engagement between building managers, tenants and owners is key to harmonious, sustainable and respectful modern living. But achieving positive engagement, particularly when you are asking for behavior change, is most challenging.

Tania Crosbie will present the outcomes from the three-year study into the effectiveness of the national Smart Blocks (energy efficiency in common areas within apartment complexes) program. The outcomes of the Smart Blocks study have a wider application and can be used to develop strategies and plans for engaging with those in apartment complexes.



Tania will share with you a number of outcomes from this study such as how to develop an effective engagement process for apartment complexes; how to communicate sustainability to building managers and owners; how to build the case for 'what's in it for me' for all stakeholders; and finally, the role of councils.

Engaging building managers, owners and tenants about sustainability issues in apartment complexes can be both simple and complex. Sometimes we over-think our engagement to the point we become so scared of potential conflict that we don't say anything. The effective engagement process requires a combination of informal communication alongside a detailed implementation plan.

Persuading a group of owners to invest in sustainability initiatives requires meticulous planning, research, transparency and communication. With all the conflicting motivations, understanding what incentives work is key to gaining support for your sustainability initiatives.

Supporting owners and tenants to also look at sustainability opportunities within their own apartments is also essential to reducing the cumulative and individual impacts of our housing stock on the environment.

Councils have a large role to play in the development of apartment engagement programs.

Tania conducted the research annually since Smart Blocks launched culminating with 50+ in-depth interviews with owners, building managers and councils.

Ms Eve-Marie Davie

Landscape Designer & Urban Planner, Owner Business

Public spaces for everyone or just the majority?

Australia's population is linguistically diverse, with 19.3% speaking a language other than English at home (Australian Bureau of Statistics 2012). In recent years, the push for social sustainability has gained momentum, with the recognition that it is the 'glue' that holds communities together and supports economic and social wealth. With greater density, continued population growth and increasing ethnic diversity, our urban public spaces will play an increasingly important role in our cities. Surprisingly, there is a clear absence of research on the design for and use of public spaces by Culturally and Linguistically Diverse (CALD) communities in Australia. International studies indicate that ethnic minority groups use public space less and use it differently, and that they are being disadvantaged by design and planning regulations.

Universal Design (UD) has been fully embraced by all professionals involved in the creation of public space in Australia. However, the effectiveness of these design principles has been called into question, with recent studies suggesting that UD can only provide a partial solution and may actually limit progress toward equitable access for minorities.

Results indicate that CALD groups were rarely directly consulted through community engagement in the design of award-winning public spaces. CALD communities were rarely linked in any way to the design of these public spaces. In a more detailed examination of the council of Marion (South Australia), the planners and community officers interviewed had a focus on delivering services and programs and did not consider public open space design as a way of supporting CALD.



The results of this thesis suggest that there is a strong case for designing for and with CALD in public open space, as there are implications for the social cohesion of local communities around Australia and the health of CALD groups.

Prof Patrick Fuery

Dean of Humanities and Social Sciences, Chapman University

Co-authors: Dr Kelli Fuery, Professor, Chapman University

The Interstices of the Creative City

There are easily recognized cultural and creative industries in the city. From theaters to cinemas, art galleries to sports fields, monuments to shopping malls - these are the infrastructures that become the dominating markers of a city's (creative/cultural) identity. There are, however, many versions of the unseen and the in between - the interstices - of 'things' and places that form alternate versions.

These can be determined historically (a space that has a certain status for a group and then later becomes a creative/cultural site, for example indigenous spaces or historical markers), as alternative spaces/events that move to more recognized status (Haight-Ashbury as counter culture space to mainstream tourist site, or a bridge that becomes both functional and a tourist site), unrecognized as a cultural space or recognized in a different light (an ethnically defined neighborhood begins as such because it is where a certain group live, and then becomes a visible space because of its cultural difference).

This presentation examines how these interstices grow and become part of a city's identity and how such processes take place. We examine both the intended and unintended designations of such spaces and the impact this has on a city's relationship to its own organic makeup. Comparative examples from Australia, the US, England, and Europe will be used to show commonalities and differences in these processes. Finally, we look at a different type of interstices - where an institution transforms from one identity to another through creative/cultural alignment and how this hybridity functions in the 21st C.

Dr Idil Gaziulusoy

Principal Researcher, Victoria Eco-innovation Lab, University of Melbourne

Co-author: Prof Chris Ryan, Director, Victorian Eco-innovation Lab, University of Melbourne

Low-carbon, Resilient, City Futures - A Design-Mediated Approach: Visions and Pathways 2040

Transitions to low-carbon resilient futures require structural changes in socio-cultural-technological-physical systems. Cities are increasingly becoming the focus of vision-driven transitions research, which pose creative as well as analytical challenges due to high complexity and uncertainty associated with these projects. In this paper we aim to present an investigation of role of design in projects focusing on low-carbon transitions in cities using Visions and Pathways 2040 (VP2040) project as a case study.



VP2040 is a four year long project funded by the CRC low-carbon living stream aiming to develop visions, scenarios and pathways for low-carbon resilient southern Australian cities by 2040 (Sydney, Melbourne, Adelaide and Perth). The project adopts a design-led approach, linking research and engagement in future visioning, for addressing problems of wicked and strategic nature. Our findings indicate that the role design can play in low-carbon transitions projects is various covering very tangible, technical, skills-based roles, to very intangible roles, relating to how information is received, processed and synthesised.

Mr Matt Genever

Business Leader, Waste and Resource Management, Hyder Consulting

The Impossible Dream? Managing waste in expanding urban cities

The ideal of a sustainable urban city must consider the way in which resources are consumed and rebirthed through innovative recycling technology. The point to which the 'low hanging fruit' have been picked in this area is long past in most western economies, with sophisticated systems for processing key commodities such as glass, cardboard and metals already in place. What the world is seeing now is the emergence of larger scale technologies for recovering value from our residual waste streams, including the development of energy from waste facilities.

But what happens when it comes time to build such facilities close to or within cities? Planning and licensing requirements mean that land availability for industrial processes is reducing, however to make recycling and recovery ventures viable facilities need to be constructed as close to the source of waste generation as possible.

The intersection between residential development and waste management has led to significant conflict between parties in many jurisdictions. Active resident groups have successfully contested development or expansion of waste management facilities around the world, including in Victoria, forcing councils and private industry to seek alternative solutions (in many instances at much greater cost).

Matt Genever, Business Leader Waste and Resource Management at Hyder Consulting, will outline the case for integrated waste management systems in modern urban cities and highlight the intersection points between the community, local governments and the waste and recycling industry. Particular attention will be given to the integration of waste management provisions into planning frameworks locally and abroad in an attempt to balance the need for waste processing infrastructure with community attitudes and needs.



Dr Sumita Ghosh

Course Director and Senior Lecturer, University of Technology, Sydney

Co-authors: A/Prof Sara Wilkinson, Associate Professor, University of Technology, Sydney
Mr Daniel Adler, Research Associate, University of Technology, Sydney

Social aspects of urban food production: a case study of Coogee Community garden in Sydney

Currently a significant movement is underway globally to integrate urban food production within existing built environments. Enthusiasm of people to utilise vacant land, brown-field sites, rooftops and street verges for urban agriculture is driving constructive urban transformations and regeneration and creating more liveable places. These initiatives are strongly linked to positive socio-cultural benefits, local economic growth, improved ecological and environmental performance and better public health. Underlying optimism and thoughts of individuals that facilitate these collective efforts at the inception of establishing productive urban spaces become invisible in the process. Limited research has been conducted in this area. This paper focuses on understanding these aspects at an early stage of setting up a Coogee Community Garden in Randwick City Council in Sydney.

A review on relevant national and international case studies identifies distinctive factors that encourage social participation, community engagement and sustainability practices specially in community gardens. This paper explores aspirations, motivations and expectations of Coogee Community Garden members in growing food. Semi structured interviews have been conducted with the members of this community garden. This research analyses further how satisfactions and previous experiences of the members have influenced their decisions to involve in gardening activities. Participants views on time commitment, management and financial contributions provide possible solutions for meaningful functioning of the garden. Outcomes suggest urban food production in this community garden has huge potential to motivate regeneration, sustainability, active lifestyle practices, knowledge sharing, social connectivity, sense of belonging and a well knit community. Supports and incentives from local governments, government and private organisations and appropriate planning policies will be essential for success and continuity of these initiatives.

Ms Jen Guice

Senior Sustainability Planner, Penrith City Council

Co-authors: Ms Candice Delaney, Senior Research Consultant, Institute for Sustainable Futures, University of Technology Sydney

Hot in the City! Addressing urban heat in western Sydney

Penrith City Council is situated at the foot of the Blue Mountains in Western Sydney. Over the last 40 years all Western Sydney weather stations have experienced a rise in annual temperatures. The gap between coastal Sydney temperatures and Western Sydney temperatures has widened and the number of extreme temperature events has risen dramatically. In the period between 1965 and 2011, the number of days in Western Sydney with temperatures above 35°C has increased by 250%. Heat is a current and real issue for residents and workers in the Penrith area.



Population is projected to increase in the region by 30% before 2031, this coupled with climate change projections of more frequent heatwave events in the region means heat will continue to affect the liveability of our city.

Council has been coordinating research with the Institute for Sustainable Futures to find out where and how heat affects the Penrith community. The research has particularly focussed on identifying areas that will affect those most vulnerable to the impacts of heat wave events. This research will inform the development of a 'Cooling the City' Strategy to address urban heat islands in Penrith. The fact that the whole of the Penrith LGA is already experiencing extremely high heat well in excess of 49°C land surface temperature during heat events means that investment in strategies to cool the city will be required into the future, with limited resources. However the spatial location of cooling strategies such as green infrastructure needs to ensure the best return on investment. A sound and reliable evidence base will ensure that Penrith City Council can be pro-active in decision making and investments in cooling strategies to locations where benefits for community health and wellbeing are maximised.

This paper will present the approach being taken to gather meaningful information that pinpoints where the Penrith community is most vulnerable to heat and highlights the results that will direct where Council can focus its attention and resources to help ameliorate this serious risk to our communities.

Ms Emily Halliburton

Health Promotion Coordinator, Monash City Council

Co-author: Mr Julius Peiker, Co-ordinator Community Development, Monash City Council

Creating an Age-Friendly, Healthy, Engaged City: a tale of two major social strategies influencing the liveability of the Monash community

Monash City Council's landmark Access and Equity Framework 2013 - 2017 provides a context to Council's social planning activities. Through this overarching framework, Council has recently developed an Age Friendly Plan 2015 - 2019 and Health & Wellbeing Partnership Plan 2013 - 2017 using innovative consultative methodologies. This presentation will demonstrate how Monash is transforming itself as a thriving city with bold commitment to liveability.

Utilising the Age Friendly World Health Organisation Framework, in 2014 Council recruited and trained twenty Age Friendly Ambassadors to consult with their peers. This cohort is now influencing Monash City Council policy decision-making. The Age Friendly Plan articulates what is important to older Monash residents and Council's role in shaping Monash to be a more liveable city for its older residents.

Where we live, work, play and study can have a big impact on our health and wellbeing. Through its Health & Wellbeing Partnership Plan, currently in second year implementation, Monash City Council has captured the important role local government has in improving the liveability of communities, the engagement of its residents and increasing the health and wellbeing of the local population.



Whether it be providing world-class recreation centres; bike paths and active open spaces; implementing programs to prevent violence against women; lobbying to the State Government for legislative reform around pokies in disadvantaged communities or installing innovative lighting and artwork to improve laneway safety, Monash City Council has a direct role in strengthening the health of its local community.

This presentation will showcase the Monash City Council's experience in developing and implementing two major strategic social strategies in broad consultation with community, aimed at improving the liveability of the Monash community and the health, wellbeing and engagement of the local population.

Ms Carole Hammond

Senior Sustainability Officer, Moonee Valley City Council

The Stirring Giant: Local government and greenhouse mitigation in Victoria

Local government in Australia is acknowledged as having the potential to influence over fifty per cent of Australia's greenhouse emissions, through transport, infrastructure development, waste management, land use change and the community's energy use. However few studies have sought to examine the effectiveness of this sector's mitigation efforts and activities.

In this 2014 research study it was found that the greatest potential capabilities for mitigation by Local government in Victoria exist in three domains for action – planning control, technological implementation, and behavioural education.

In fact through the 2000s some of the most powerful mitigation activities ever undertaken in Victoria have been undertaken in this manner by councils, including the solar bulk buy networks, street-lighting changeovers, environmentally sustainable design, recycling, and united efforts across many councils to strategically influence the Victorian State government.

Certainly, it is recognised mitigation action is uneven across Victorian Local government with many councils efforts often poorly aligned with the deeper social dimensions of householder consumption, emissions and adaptation, and weak enthusiasm for innovative long-term householder emissions mitigation projects. Yet the level of project creativity and resourcefulness that typifies the 'third tier' of Australian government, and the surging snowball effect of their actions, mean Victorian councils mitigation achievements could never be described as "a stiff smile to be painted on the wreckage of grander visions".

In Australia and elsewhere, in the face of growing environmental, economic and political uncertainty, local government is becoming more innovative and ingenious when it comes to the environment. Are local environmental approaches to cooperation, knowledge, interpretation, planning, green infrastructure, energy, and adaptation an indication that the local giant of Australia is slowly stirring into a 21st century agent of change?



Mr Justin Hanrahan

Manager Recreation and Open Space, Yarra City Council

Liveable for whom? Providing, managing and maintaining open spaces in the face of a growing, urban population

As inner Melbourne suburbs evolve through large infill developments, consisting mostly of 1 and 2 bedroom apartments, the ability to provide access to quality public open spaces is being tested by this changing community profile.

The ability to re-imagine and re-use existing spaces and invest in strategic acquisitions is at a critical stage if we are to be able to meet the majority of needs across the old and new communities.

Dealing with competing interests, managing - or extending - hours of use and understanding the desired levels of service are factors that must be considered long before the new population arrives.

The evolution of the role of public open space must be done under the gaze of the current population who watch nervously as towers of apartments rise in their neighbourhoods.

While the City of Yarra continues to be acknowledged for its progressive approach to the provision of new open spaces, the ability to plan, adapt and evolve will continue to be the measure of our success.

Mr Matt Harridge

Director, O'Brien Traffic

One percenters' for Sustainable Transport

In Australian Rules Football, "one percenters" are little extra efforts that may not individually alter the outcome of a game (or be recorded in the statistics) but when considered collectively, the impact on a game can be significant.

This is similar in organisations when a large budget cannot be provided for sustainable transport projects or there is not political support to provide controversial changes (i.e. removing significant areas of on-street parking to provide high quality bicycle lanes etc).

This presentation will provide examples of where one percenters can be "game changers" for the sustainable transport. Examples include

- lower cost pedestrian crossing facilities
- linemarking alterations to improve safety and access for cyclist
- incorporating cycling and walking facilities when reconstructing road
- making small but important changes to shared path
- installation of profiled linemarking / coloured linemarking to improve delineation of cars and cyclists
- treatment of laneway / footpath intersections.

These examples will be supplemented with before and after crash data, pedestrian / cyclist data and community feedback.



Ms Leanne Hodyl

Coordinator - City Plans and Policy, City of Melbourne

Why does Melbourne's cheap density cost us so much?

Melbourne's central city is developing at four times the maximum residential densities allowed in New York, Hong Kong and Tokyo, some of the highest density cities in the world.

This paper represents the findings of a 2014 Churchill Fellowship which investigated the urban design and planning policies that apply to high-rise, high-density housing in New York, Vancouver, Tokyo, Hong Kong and Seoul. It provides an informative critique of Melbourne's recent development patterns compared to what would be allowed in these global cities. It illustrates the negative impact of Melbourne's weak planning controls that offer cheap density to developers as they are able to build unlimited density with limited need for a community contribution, for consideration of the lives of the residents or the impact on the public spaces below. It argues that Melbourne needs more effective planning policies for high-rise apartment towers if we are to continue to be a world leader in urban liveability.

The evidence from these global cities is clear. Melbourne would benefit from the introduction of policies that set appropriate density controls, establish density bonuses to incentivise developers to deliver public benefit such as open space or affordable housing, establish an enforceable tower separation rule and set clear apartment standards. These policies can have a direct, positive impact on the form of the city, fund infrastructure needed to support community health and well-being, protect the quality of public spaces and facilitate well-designed housing that meets the diverse needs of residents.

The lessons learnt from this paper are transferable to all Australian capital cities. It is difficult to retrofit or demolish high-rise apartment towers once the apartments are sold. Any negative impacts will therefore be long-lasting. As the proportion of Australians living in high-rise communities in our central cities increases, it is imperative that we act now.

Suzette Jackson

Director, Innate Ecology

Future Proofing – Food Hubs and Regional Cities

In his book 'Rebuilding the FoodShed', 2013, Phillip Ackerman-List writes "Ever since we stepped into the precarious shelter of domestication, we humans have struggled to create food systems that could sustain us – all of us- without unravelling the delicate ecological fabric that ensures future harvests." With the advent of Climate change and the pressures on cities to become increasingly resilient, the issue of food security and indeed access to fresh and nutritious food produce at a local level is becoming increasingly significant. The following paper presents research into the feasibility of establishing a regional food hub for Geelong. It focuses on Victoria's largest regional city of Geelong, and the council municipalities of the City of Greater Geelong, Surf Coast Shire, Colac Otway, Golden Plains and Borough of Queenscliff. These five councils form the 'G21 Regional Alliance' and work together to pursue complimentary aims at a state government and federal government level.



The study assesses the viability of introducing a focused regional food organization to support the growth of ethical and sustainable food production, distribution and access within the greater Geelong region. In particular the study looks at the production, processing and distribution of regional fruit and vegetables and the promotion of all regional produce and value added foods. Research incorporated a review of international trends and initiatives and looks to Australia food health and wellbeing policies to align the principles of local food sourcing within the regional community. The Geelong Food Hub study aimed to identify functions that will contribute to the regional agrifood sector along with improved environmental, social and financial outcomes for the regional community.

The research was Funded by the Department of Regional Development Victoria's 'Putting Locals First Fund', and was coordinated by Deakin University's School of Architecture and Built Environment, in partnership with the City of Geelong's 'Future Proofing Geelong', Planning and Strategy and Enterprise Geelong, and Innate Ecology.

Ms Mary Ann Jackson

Managing Director, Visionary Design Development Pty Ltd

Accessible Parking: in a shared world?

People with disabilities often find themselves excluded from public space, including public transport, due to accessibility issues. Those who are ambulant often cannot walk far nor carry routine weekly shopping purchases. The resultant reliance on private vehicles has historically been accommodated through the provision of Disabled Parking along with permits issued by local government authorities. Such schemes have evolved organically with little, if any, input from people with disabilities.

Additionally, urban design with its current emphases on walkability, sustainability, cycling promotion and shared space, rarely considers accessible parking, relegating it instead to the domain of traffic engineers who often have no experience of disability. Moreover, accessible parking is the forgotten concern in traffic engineering, with no guidance regarding quantity and very general comments about position. The current Australian Standard for on-street parking is AS 2890.5 1993, pre-dating both AS 1428 Design for Access and Mobility suite's current version (published 2009) and contemporary accessibility knowledge practice.

Therefore, how should the needs of disabled permit parking holders be accommodated within current inner-city urban design movements that favour street activation and active transport? How can the widening and lengthening of current permit bays be accommodated where narrow footpaths and roadside barriers (poles, mature trees, storm water drainage pits, street trading, etc) prevail? What do the users of these bays have to say about accessible parking and how can these wants be accommodated in an environment of escalating turf wars engendered by increasing urban density and emerging concepts of shared, public, space? By exploring the disconnect between traffic engineering, urban design and accessibility needs, this paper attempts to answer these questions. The findings of a research project inquiring into accessible parking in an inner-Melbourne local government area will be presented as a Case Study.



Ms Lily Jacobs

CEO, Renew Adelaide

Rethinking economic growth by fostering creative communities

Empty shopfronts, "for lease" signs and 10 year building vacancies were commonplace in Adelaide's CBD in 2010 as the retail and entertainment economy waned. Locals actively avoided vacant arcades, young graduates planned their move to other, more vibrant, cities and Adelaidians complained of having "nothing to do." Out of this economic climate the Renew Adelaide movement formed - utilising more than money to stimulate and revitalise a cultural and creative inner city community.

Renew Adelaide places and develops young creative entrepreneurs in vacant property on a short term, rent-free leasing model - giving them a chance to trial their business ideas in a low risk environment, whilst attracting foot traffic and activity to a previously disused space. Renew Adelaide's CEO, Lily Jacobs will discuss this urban renewal model, and other national and international examples of programs used to stimulate a creative economy that can be used to foster growth, vibrancy and activity in a city.

Urban renewal is not without its challenges though, and after 5 years of placing sixty projects, and one hundred and fifty creative entrepreneurs, into vacant space, Lily will also present a series of critical factors that can increase the likelihood of building a creative community, including stakeholder engagement, building a community of followers, and redefining the typical funding measures of success.

Mr Ryan James

Demographer, .id consulting

Modelling for Service Provision: identifying service demand through small area forecasting

.id produces population forecasts for local governments, service providers and community organisations (public and private) throughout Australia. These forecasts give an insight into the characteristics of future populations for the next 25 years using a 'bottom-up' approach that models demographic propensities and housing development assumptions on a site-by-site basis. They are used to determine the level of demand for services so decision makers can allocate resources using a targeted and efficient methodology.

This presentation discusses the use of small area geography throughout this process. Small areas are regions that are smaller than municipalities. They may be suburbs, activity centres, new development sites, or the collection of a few hundred existing houses.

There are a number of benefits to using geography at this scale; it reveals issues that may be hidden through aggregation of other data, the geography is flexible and can be tailored to suit project requirements, it is better at identifying where to locate services and infrastructure, and it provides a rich data set that can be used in a range of other settings.



By detailing the Small Area Forecasting process and highlighting a number of real examples that are used to create liveable active and healthy cities, this session will benefit anyone involved in the location decisions for Health Services and Active Transports Infrastructure.

The presentation will cover the following. Principles of Small Area Forecasting, Case Studies Outline*, and Issues related to Health Services and Active Transport

*case studies outlines may include

Identifying the need for future disability services provision - Wyndham City Council

Urban form and the Health of Communities - Geelong City Council

Specifying Demand for Water Treatment - Tweed City Council

Where to locate new pedestrian access spending - NSW LGA

Ms Liz Johnstone

Associate Director, AECOM

Urban Governance - What makes cities work?

As we urbanise the leadership and governance of our cities becomes increasingly critical for our future liveability, resilience and sustainability.

This presentation explores and compares governance arrangements across Australia's largest cities and their global counterparts, and the pros and cons of these models in the context of the attributes necessary for successful cities.

The differences and overlaps of liveability, resilience and sustainability frameworks are explored in the context of the (draft) UN sustainable development goals.

Successful cities resolve and leverage the inherent tensions plaguing policy and decision makers involved in urban governance - such as long term needs versus short term imperatives and individual interests versus collective interests; and the rising role of the media in news creation. Successful cities are innovative, agile, productive and competitive.

The paper concludes that cities, being complex systems of systems, are increasingly disconnected from their environment and the impacts of their growing consumption. This disconnect means that active management of these tensions is even more critical, and that the current governance arrangements in Australia do not support optimal outcomes for our future.

It recommends alternative models and a sustainability framework to foster the necessary long term focus and collaboration across community, government, academia and business.

"Managing urban areas has become one of the most important development challenges of the 21st century. Our success or failure in building sustainable cities will be a major factor in the success of the post-2015 UN development agenda," said John Wilmoth, Director of UN DESA's Population Division.



Ms Jennifer Lauber Patterson

Managing Director, Frontier Carbon

Opportunities in delivering energy and emission reduction within Councils and Communities

The job of reducing carbon emissions to reduce the most serious impacts of climate change is enormous. It not only important to achieve outcomes at a global level but the role of communities showing how this can be achieved is starting to grow.

There are a large number of regulatory incentives as well as emerging financing opportunities which will provide Council's and businesses the opportunity to make a large difference in communities.

Policy has an important role in assist cities to transition to a lower carbon economy. Jennifer Lauber Patterson will explore current policies and how they can be leverage to assist in the transition to a low carbon sustainable community. Jennifer will also advocate what further policies are necessary to further to assist cities to transition more effectively.

Ms Lauber Patterson will explore how innovation is key to transforming communities to lower emissions and will discuss many emerging areas such as the increased trends in the development of community renewable energy projects (over 60 currently in planning in Australia), financing tools such as leasing, Power Purchase Agreements and Environmental Upgrade Agreements that are all assisting communities to transition.

Ms Lauber Patterson is also assisting Councils business and communities to identify and develop opportunities under the Emission Reduction Fund which include building energy efficiency, landfill, forestry and many others. Ms Lauber Patterson will be assisting Councils to bid into the first Emission Reduction Fund Auction that will be taking place next month. Ms Lauber Patterson can provide tips to Councils and communities on opportunities and how the ERF works.

Ms Lauber Patterson has been in a leader in transforming communities to low carbon economies for over 20 years. She is currently Chair, Yarra Energy Foundation which has a goal of delivering carbon neutrality to the businesses and residents in the City of Yarra, she is the Head of the Climate Markets Investment Association in Australia and NZ and is MD, Frontier Energy. Over the last few years, as the Managing Director of Frontier Energy, Jen oversaw the development of innovative commercial business models that demonstrated with the right expertise and innovation we can move to a lower carbon economy and achieve social and financial prosperity. A philosophy to develop proven, innovative programs, advise others of how to do it and to provide support for businesses and communities to benefit.



Mr Alastair Leighton

Associate Director, AECOM Australia Pty Ltd

It's broken so let's fix it: A Framework for Healthier Communities

I can't think of anyone who would suggest that creating healthier communities is a bad thing. If that's true, then why do so many environments fail to optimise community health and well-being? Evidence suggests that communities in urban environments are becoming progressively less well. This is a significant problem. Should we therefore conclude that current approaches require a radical overhaul? This presentation will suggest that a fragmented approach to sustaining communities is the biggest challenge, compounded by excessive control that stifles innovation, participation and perpetuates poor performance. It will consider the contribution to be made by 'good environments'.

What is the role of urban planning and design in this mix? Perhaps the design of urban environments could be the platform for promoting beneficial change, and act as the critical glue that makes everything work better.

This presentation will present a concise summary of activity that seeks to break the mould and achieve powerful synergies through more effective collaboration. It will put the case for a powerful place-based approach to functional considerations that are generally considered as disconnected overlays. It will consider how these may increase health and well-being, encourage greater economic participation and address the challenge of ageing populations.

The presentation will conclude that whilst Master Planned new communities have top billing, we now need to move rapidly to embrace the more imaginative master planning of established communities, to sow seeds to achieve tangible change. It will also suggest measures to begin to embrace this approach, to test the concept and achieve powerful transformation in the short term.

Key words: Challenge, Health and Well-being, Community Capacity, Collaboration, Ageing Populations, Transformation, Economic Participation

Mr Matthew Low

Senior Associate, Geografia

Planning Liveable Cities with Big, Social Data

Big, social data - data collected from social networks such as Twitter, Facebook, Foursquare and Urban Spoon - provides new insights into how to create liveable cities. Billions of geo-coded data points from these big, social datasets can be harvested to understand how people move around the city and how they experience the urban environment. Deeper, real-time urban insights provide the evidence base for planning more liveable cities creating more responsive transport networks, developing unique neighbourhood identities, and designing more attractive places.

These new data sets are especially useful for addressing key gaps within the urban planner's toolbox. Firstly, as cities become increasingly dynamic, conventional data sets (such as Census data) are updated infrequently, while big, social data can be analysed in real-time. Secondly, there is limited conventional data about the human experience of cities how people feel about places, or how they use a place.



Using a dataset of five million social media interactions, this paper will demonstrate four applications where big, social data can be collected, analysed and visualised to help plan more liveable cities:

1. The mood of the city - measuring perceptions of local liveability and lifestyle.
2. Movement in the city - understanding mobility in data-scarce cities.
3. The boroughs of cities - determining the boundaries of neighbourhoods based on social experiences.
4. Gentrification of the city - investigating the changing liveability of neighbourhoods from the point of view of young adults.

These case studies will demonstrate that big, social data is best used in conjunction with traditional sources of urban insight census data, surveys, and interviews. As social data becomes ubiquitous and higher quality, there will be opportunities to create new insights into all facets of city planning and management. The way we measure urban liveability, and the way we plan for more liveable cities will change with these emerging data sets.

Mr Guy Luscombe

Director, GLAD Studio

The NANA Project: New Architecture for the New Aged

Despite the oft stated desire to find new ways to accommodate older people and create age friendly communities, current solutions mostly repeat standard 'retirement village' and 'nursing home' models. Not only will the projected numbers of older Australians mean new and innovative ways to house them will be necessary but this cohort of new aged will be healthier, wealthier, more educated and far more powerful than previous generations and will demand other approaches and more choice. What other solutions are there?

This presentation will show the results of a Byera Hadley Travelling Scholarship undertaken in 2014 which visited recently completed innovative developments for the aged in Europe. The goal was to see firstly if these buildings had been successful in what they set out to achieve and whether the models and their features could be applied to the Australian context. A variety of places for the aged were visited including self-funded co housing and inter-generational communities. Using a 'checklist' to firstly analyse and then compare them, common design principles and features were developed that could easily be incorporated into all developments for the aged to make better, more friendly places for them.

What will be presented will likely challenge pre-conceived ideas about environments for older people and at the very least provide more options for them.



Ms Sally MacAdams

Local Sustainability Facilitator, Yarra City Council

In your patch: a new model for enabling local sustainability action

Large-scale change is needed on the community level if our cities are to be sustainable. Recognising their role in this transformation, Councils frequently put considerable time, energy and money into engaging their communities in sustainable living and action, with mixed success. In the City of Yarra, the challenge is to engage effectively with a highly diverse and complex community, where the ecological footprint is high, and barriers and drivers are varied and numerous.

'In Your Patch: Local Sustainability in Action' set out to increase the effectiveness and reach of community sustainability action via a community empowerment model. It has built on the lessons of previous programs, such as Talking My Language, Sustainable Outreach Whittlesea, and standard grants programs, and taken them in a slightly different direction.

Rather than starting with a pre-determined Council-led program, In Your Patch started by calling on local groups to put forward community sustainability projects that they could themselves lead, with Council support. There was a particular focus on connecting neighbours, and reaching new audiences within our diverse community.

Council selected six high-potential projects to work with closely. In contrast to a traditional grants model, Council's role has been primarily in providing a significant amount of in-kind support and capacity building, and a small amount of financial support.

This model enables community engagement to be conducted by individuals, groups and organisations already deeply embedded in, sensitive to, and trusted by their local communities. This fosters peer learning, community connectedness, the capacity building of champions, and a sustainable way of reaching the hard to reach.

In Your Patch offers a new take on a long-standing aspiration of local government to promote sustainability amongst residents. It is intrinsically adaptable to a wide range of communities.

Keywords: community empowerment, sustainability, peer learning, champions, hard to reach, neighbours, neighbourhood scale



Mr Matthew Mackay

Practice Leader, Landscape Architect, HASSELL

Working on the Roof- Outdoor Working within the City

HASSELL is a leading international design practice, with an integrated design approach that brings together landscape architects, architects, interior designers, urban designers, planners and specialist consultants to deliver exceptional, sustainable outcomes for clients.

Commercial workplace design is a key area of our practice, presenting the opportunity to investigate integrated, outdoor working environments within new buildings. Our multi-disciplinary approach to projects often allows our landscape architects to be engaged early in the process of designing new buildings. This, we believe, has led to ambitious explorations, and hybridisations, of both landscape and architecture in this context.

Fundamentally, the outdoor spaces we design are about improving the environmental performance of buildings, as well as offering the people who inhabit them a closer connection to landscape space within the city. However, through a truly collaborative approach, the outdoor spaces within buildings (such as roofscapes) can be astutely designed to perform beyond the typical expectations for green infrastructure. We would like to present to the WGIC audience a range of HASSELL projects that exemplify this ambition, and demonstrate our evolving knowledge in designing exceptional outdoor work environments for commercial and workplace buildings.

Despina Macris

Managing Co-Director, Dotdash

Wayfinding - The Binding Thread. Improving Pedestrian Movement in the Urban Environment

As the fabric of today's urban environment increases in its density and complexity, the pedestrian perspective, which takes place at street-level, changes with it. Networked configurations of routes on foot become more complex, and the act of learning one's environment via a process of integration and experience becomes more difficult.

It has been suggested that for people to understand their surroundings, environmental complexity must be reduced, but how to do that within the ever-changing cityscape?

Alongside the configurational principles of urban design, a coherent pattern of visual cues is needed, which takes the form of wayfinding communication.

Wayfinding communication is a binding thread that runs through a fabric of the city, its legibility influences the rate at which a complex environment can become known, and a person can feel connected to place.

Often previously overlooked as playing a crucial role in the accessibility of a city, wayfinding communication has become more recognised as one of the smallest, yet most critical components of the complex urban landscape. Its integration influences the broader functionality of the urban environment, and channels its pedestrian movement - a significant contributor to the vitality of a city.



In the absence of clear and concise wayfinding communication, we risk the creation of perplexing urban spaces, where the complexities of spatial information overwhelm the user. The more we can understand how and why people find their way, and aid the process appropriately, the more chance we have of designing a built environment that nurtures promotes a physical and physiological wellbeing of it's population.

Mr Peter Maganov

Manager, Sustainability and Strategic Waste, Randwick City Council

Future proofing our communities

What would an organisation look like that was future-proofing and creating resilient communities?

Would an organisation's understanding of its own consumption of natural resources be important, would a long term investment program to engage with and skill up its community be a sensible approach, would spending over \$30 million over a decade on environmental and sustainability improvements be enough?

This is happening at the Local Government level, but is it creating the right environment and are there barriers or resistance to plan for or work through?

Randwick Council in Sydney's eastern suburbs continues the roll out of its environmental levy program with major initiatives saving millions of litres of drinking water, conserving energy and expanding renewables investment, protecting the significant biodiversity of the region, recovering food waste, increasing recycling and re-use, and engaging significantly and substantially with its various residents, school groups, local businesses and Council staff.

A warts and all experience of overcoming , deflecting and identifying the road-blocks and obstructions to future-proof a local community!

Dr Kat Martindale

Research Director, BVN Architecture

Co-authors: Mr Phillip Rossington, Principal, BVN Architecture
Danielle McParland, Architectural Graduate, BVN Architecture

Regulating Design: The Impacts of SEPP 65 on architectural design

Since its introduction in New South Wales in 2002, State Environmental Planning Policy 65 Design Quality of Residential Flat Development (SEPP 65) presented a series of principles intended to elevate the design quality of new build developments and change of use conversions. Initiated by then State Premier Bob Carr following the rapid development of apartment buildings in the decade leading up to the Millennium, most of which he determined to be of poor quality aesthetically, the document sets out principles in ten areas ranging from energy and water efficiency and safety and security to context, scale and aesthetics.

Intended to elevate design in the development process, strict adherence to requirements in several aspects, notably in Principle 7 Amenity, have dictated design with, at times, negative outcomes.



This has been particularly apparent when considering solar access. For example, obligations requiring architects and designers to adhere to specific proportions of solar access relating to the direction of the building often fail to take into consideration plot orientation, inhibiting the interior layout design.

Using a review of residential developments before 2002 and since, this research seeks to establish the how design quality has been impeded by the ardent application of these principles and asks if the current overhaul of the planning system, including the revision of SEPP 65, will address these design issues.

Mr Mark McKenna

Sustainability Leader, Norman Disney & Young

Leederville, WA: 2015 to 2031 - A holistic resources conservation strategy for the town centre

The City of Vincent Council (WA) is preparing an Area Structure Plan to guide the development of Leederville town centre up until 2031, in accordance with WA State Planning Policy 4.2. An independent study commissioned by the City predicts a 75% increase in town population by 2031; allied with the development of 4,500 additional residential dwellings and an additional 30% of non-residential floor space.

Norman Disney & Young completed a resources conservation study of the town centre and modelled the potential environmental impacts based on a range of population and development growth scenarios.

The first component of the study assessed the impact of prospective 'business as usual' development on town utility infrastructure. Results indicated a lack of town centre infrastructure capacity and the urgent need to mandate better performing, higher density development in the Leederville Area Structure Plan. Critical issues identified in this part of the study include: Town centralised waste collection facility reaching capacity by 2021; Insufficient current electrical network capacity existing to accommodate new development; predicted 2050 town water targets to be reached by 2023 and a more efficient retail strategy being required to better serve the community.

The second component of the study assessed the effectiveness of nominated 'best practice' development benchmarks and human resident behaviour on long-term environmental resilience. Results highlighted the limited effectiveness of such benchmarks and the overwhelming contribution that resident behaviour and education can provide for achieving a more resilient environmental strategy for Leederville.

Session attendees will learn of the overwhelming importance of human behaviour when developing a precinct-wide resource conservation strategy; and the challenges faced by the City of Vincent Council in mandating such a strategy for Leederville.



A/Prof Caroline Miller

Associate Professor, Massey University

Public Attitudes to the Environment Insights from the Values Survey

While environmental concerns have existed for some decades accompanied by strong advocacy for more environmentally orientated policies, the reality is that such policies will generally only be achieved if politicians can be persuaded the public are willing to accept them. Thus any data revealing the public's attitudes to various environmental questions particularly those using questions cast as policy alternatives can provide valuable insights.

The 2011 New Zealand Values Survey which forms part of the World Values Survey once again included a number of questions on environmental issues that pose just such questions. In contrast to some other surveys the New Zealand Values Survey employs very direct questions about how willing respondents are change their behaviours and/or pay higher taxes or prices for goods to assist in achieving environmental outcomes. The 2011 Survey is the most recent of series of such surveys most of which have, in New Zealand, included these environmental questions.

Given the results of the 2011 Values Survey are available now is an excellent time for this paper to examine the results of this survey and to compare it with the outcomes of previous surveys to provide some insight into how open the public are likely to be to taking active steps to change their behaviour to achieve environmental outcomes. The paper will also look at how such attitudes have changed over time and if characteristics such as party political support (important in New Zealand's MMP electoral system) or professional or religious affiliation affect such views. Finally, it will also make some international comparisons using material from the Australian Values Survey undertaken in the same year.

Mr Bruce Mills

Manager, Place Management, Parramatta City Council

Addressing the 'wicked problem' of a cycle of public space decline - the transformation of Parramatta's Church Street Mall

Church Street Mall in the Parramatta CBD had not been upgraded since 1988, becoming widely perceived a closed street with moribund shops and characterised by anti-social behaviours ('Too Dangerous to go Shopping', Daily Telegraph, Jan. 2011). Council was concerned that approximately 20,000 people passed through the space - but did not stop and visit - each working day.

Longitudinal perception surveys in 2010 and again in 2012, using a baseline group of 820 respondents revealed ongoing adverse perceptions of safety and amenity from local residents, workers and visitors. The Mall was perceived as a convenient but unpleasant thoroughfare. Intercept surveys of over 700 respondents in 2013 validated these findings. Respondents wanted the Mall refurbished and physically changed with 83% prioritising enhanced safety, amenity or activation as key elements required to enhance perceptions.



A distinctive element of Council's 12 month, \$6.5 million transformation of the Mall was the purposeful design and delivery of a new space, Centenary Square, as a perception changing product with new infrastructure, activities and branding to specifically address local and wider community perceptions.

Centenary Square exceeded expectations in creating a public place for quality physical interaction, while also retaining and improving the area's unique heritage features such as the historic drinking fountain. Centenary Square is visually changed ('Parramatta's Church Street Mall Transformed, Sydney Morning Herald, Sept. 2014), boosting stay and linger visitation and reducing the incident rate of anti-social behaviours (Parramatta Local Area Command). Private investment in perception-changing active frontages was also successful ('Jamie Oliver forges ahead with plans for a new alfresco Trattoria in Parramatta' Daily Telegraph, Oct. 2014).

Reversing a cycle of decline in key city public spaces is a wicked problem. Council believes this project represents an excellent case study in the transformation of a key public space, positively enhancing perceptions locally and state-wide.

Mr Wilson Ndung'u

Community Development Officer, City of Onkaparinga

Strengthening community capacity through place activation

Public spaces provide a window and a mirror to the health and wellbeing of the community and play an important role in the civic, social, cultural and economic life of a given neighbourhood. But public places are also hotly contested, with competing interests, narratives and players from user groups, property owners and developers to local businesses, governments, community groups and visitors.

Often times the manicured image masks a dark underbelly lurking just below the surface. Whilst some user groups experience a sense of ownership and pride over a given space, others report concerns around safety and exclusion. The challenge and opportunity is to acknowledge multiple narratives, engage disparate stakeholders and foster an ethic of shared space and social inclusion.

This paper will draw from our experience running Activate Ramsay Place program, a place activation project which aims to invigorate Ramsay Place through fun, innovative and vibrant activities for all. Activate Ramsay Place is a joint initiative between City of Onkaparinga and Ramsay Placemaking Working Group which comprises key stakeholders including community organisations, cultural institutions, user groups and local businesses.

We took an asset based approach to placemaking, building on the strengths and assets of the community, working collaboratively, engaging with the community throughout and creating a shared and inclusive vision with a view to creating a vibrant and welcoming place where people from all walks of life have a sense of belonging and pride.

Over a period of six months we engaged 50 community groups, delivered 70 activities with an estimated 5600 visitors. Project evaluation indicates increased civic engagement, enhanced community perception, improved community capacity and social capital particularly through the strengthening of social bonds between and amongst key stakeholders. I will share challenges, opportunities and lessons learnt in our quest to create a vibrant and welcoming place for all.



Mr Michael Nolan

Global Head of Climate Adaptation and Resilience, AECOM

Enabling City Resilience

Enabling resilience of the urban fabric, systems and infrastructure is critical for enhancing and maintaining vital economic, social and environmental outcomes during and after extreme events. How can we better adapt and integrate disaster resilience into infrastructure, planning and community development? The United Nations International Strategy for Disaster Reduction (UNISDR) leads a Making Cities Resilient campaign with over 2400 cities committed to the program.

The UNISDR Disaster Resilience Scorecard was developed by AECOM and IBM to support cities to quantifiably measure their resilience, attract investment and generate a call to action. There are several resilience measurement tools being applied globally for different objectives such as for the 100 Resilient Cities program pioneered by Rockefeller Foundation. These tools will be overviewed to provide context for application at a local government, city, state and national level. Several case study examples will be explored during the presentation to illustrate the benefit and challenges of measuring resilience.

The UN RISE initiative focused on increasing risk sensitive investment has multiple benefits for private sector and government collaborating to enhance resilient investment. The opportunities associated with RISE will be of interest to cities wanting to attract investment and lower insurance premiums.

Mr Tim O'Loan

National Design Leader, AECOM

Creating a proposition for Victoria Park, Melbourne

This paper seeks to discuss the likely opportunities (transport, water, energy, social and economic) available to Melbourne's Victoria Park precinct over the next 35 years and sets a vision for how these may be realised. At the heart of this examination is a proposal for the Victoria Park neighbourhood based on a forecasting of Melbourne's urban form in 2035. Such a future is heavily dominated by questions of population growth, transit infrastructure and using our resources (water, energy and waste reuse) far more efficiently than we do in 2015.

Sitting on the edge of major metropolitan rail and freeway corridors and comprised of surplus rail land and boasting abundant high quality open space, the Victoria Park precinct represents one of the best opportunities for Australia to demonstrate how higher density midrise communities could be designed and built given the population increase our cities are forecast to reach. Given its location, Victoria Park is able to take advantage of several major transport initiatives and become an inner urban multi-mode transport hub.

The recent redevelopment of the Victoria Park football ground also provides a basis for exemplary water sensitive urban design and precinct-wide water balance thinking. The preliminary concept for the precinct currently under development by AECOM would also seek to assist with the traffic volume and identity issues along Hoddle Street.



Social history plays an enormous role in conceiving the Victoria Park neighbourhood in its next 20 years. Victoria Park was once the home ground of the Collingwood (Australian Rules) Football Club for over a century. Through some very difficult social and economic times this Club and ground provided the place where the people of the poor inner urban working class Collingwood could come together as a community. As gentrification and affluence has crept into the neighbourhood over the past few decades the role of Vic Park to be a community hub has diminished.

In 2011 the City of Yarra redeveloped Victoria Park enabling it be used as a less formal recreation space for the local residents greatly improving the open space per dwelling ratio to one of the highest in the city. However the urban area adjacent to Victoria Park is still a collection of light low rise industry and redundant rail yards.

Mr Ben Peacock

Director, Republic of Everyone

Me is the new We. How collaboration is bringing back swimming to the Parramatta River

The Parramatta River is one of the most iconic in Australia. Feeding into Sydney Harbour, over 1 million people live within 20 minutes of its shores.

So how did such an incredible community asset become so unusable?

As recently as the 1950's, people would swim in the river, holding carnivals and dive spectacles. Now poor water quality and a lack of infrastructure has rendered it all but a drain.

We're changing that.

By bringing together the 13 councils that make up the catchment area and teaming up with Sydney Water we have an ambitious plan to make the River swimmable again by 2025.

Based on Stanford's Collective Impact framework, we are bringing together government, business and community to all play a part, no matter how small, in improving everything from infrastructure to biodiversity - and in the process, giving purpose and meaning to the hundreds of sustainability initiatives already being undertaken in the area.

This presentation is visual and engaging. All pictures and no words, with examples from around the world and a simple framework everyone can replicate to make big things happen in their area too.



Dr Sheryn Pitman

Manager Green Infrastructure Project, Botanic Gardens of South Australia

Why and how green infrastructure is critical for safe and liveable cities

Green Infrastructure is the network of green spaces and water systems that delivers multiple environmental, social and economic values and services to urban communities. With the rapid expansion of towns and cities around the world, the value of Green Infrastructure is becoming increasingly recognised by scientific, health, planning and design communities.

Liveability consists of diverse yet related elements such as health, comfort, safety, equity, amenity, opportunity, accessibility and affordability. It is about creating places where people can live healthy, happy and productive lives as part of a community and can fulfil their potential as human beings. While liveability encompasses the way human systems are organised, the building blocks of any human habitat are the health, integrity, functionality and sustainability of the natural world. This is why the nature-based network of plants and water systems underpins human habitats of all kinds and is why Green Infrastructure is such a critical contributor to the liveability of urban places.

Green Infrastructure is not a luxury. It should not be considered as an indulgence that only affluent communities can afford. Evidence indicates that without effective Green Infrastructure, towns and cities are at high risk of becoming unhealthy, uncomfortable and unsustainable places. Green Infrastructure strengthens the resilience of towns and cities to respond to the major current and future challenges of growth, health, climate change and biodiversity loss, as well as water, energy and food security.

This presentation provides an overview of the compelling evidence for Green Infrastructure within an integrated approach to urban design and development, and identifies key challenges and opportunities.

Miss Helen Pritchard

Sustainable Design Officer, City of Port Phillip

Co-author: Mr Steven McKellar, Sustainable Design Architect, City of Port Phillip

Bess: Facilitating environmentally sustainable built form outcomes in the age of urban consolidation

The new Built Environment Sustainability Scorecard (BESS) tool plays an important role in the continuing evolution of the Sustainable Design Assessment in the Planning Process framework (SDAPP), which enables local government to facilitate the creation of high quality, liveable and attractive urban environments.

Failure to address basic sustainable design principles in early conceptual design risks fostering low quality built form outcomes with poor user amenity. While current mandatory development regulations enable such outcomes, the SDAPP framework has a critical role to play in facilitating the creation of comfortable, liveable spaces with great environmental performance.



The top end of the development industry has seen radical transformation in this area due to organisations such as the Green Building Council of Australia and their suite of Green Star assessment tools which typically attract flagship developments such as corporate headquarters and municipal buildings.

There is however a gap for the average small to medium scale developments, which are better suited to free assessment tools that focus on the key sustainable design categories of the SDAPP framework in order to deliver built form outcomes well above minimum mandatory requirements. Specifically responding to this need the BESS tool scores developments against contemporary best practice sustainable design standards. Developed by local government through the Council Alliance for a Sustainable Built Environment, the tool is designed to assess all development types and scales via a single online platform.

This presentation will highlight the relevance of the SDAPP framework and the new BESS online tool to the contemporary development landscape. In showcasing BESS and explaining the evolution of SDAPP, the audience will learn how the local government sector can provide leadership in raising the bar for the environmental and economic outcomes of new development.

Mr David Ross

Management Consultant, Phoenix Strategic Management

Building Community Resilience at the Expense of Organisational Ego: Learn From a Rural Town

Aim:David will draw on his experiences working with some of Australia's most disadvantaged communities on "wicked problems", challenging organisations to think more about how they go about contributing to building community resilience. Furthermore, the old ways of imposing programs upon communities, heavily influenced by organisational culture, just cannot continue.

Content:As social and environmental problems become increasingly complex (so-called "wicked problems"), there is too often a duplication or fragmentation of effort caused by private, public and not-for-profit sector organisations all working on the same issues, in the same communities....but without working together.

Consequently, David will argue that organisational ego – the mindset that "our organisation alone can solve this" – no longer provides benefits for organisations that may once have been the case and indeed, restricts community agency and resilience.

David will contend that organisations must therefore, do some navel gazing in order to be comfortable in sharing power and embrace collaboration with organisations from across sectors as well as the wider community. This takes advantage of the different skills each brings to make a difference. And subsequently, this participatory approach enhances community understanding and agency and therefore, builds resilience as people feel like they can take control of their challenges. Drawing on his experiences in some of Australia's most challenged communities, David will present the example of how the NSW town of Moree Plains is battling with a wicked problem of crime. As a consequence of key organisations within Moree Plains striving to take a collaborative approach, they have gained a much better understanding of the context in which they find themselves and allowed the affected community to genuinely participate.



This has allowed for the creation of a narrative that structured action and engagement of the wider community. The community subsequently began to appreciate that crime was not the hopeless issue it was previously considered to be and has established a community that is now far more resilient to waves of crime because they understand the common vision being worked towards. Subsequently, since 2011 the rates of all crime types have fallen and the community is enjoying the provision of far more coordinated activities and services.

Conclusions: The story of Moree Plains will highlight the importance of:

- Understanding the power of an engaging narrative ;
- The need to truly understand the context in which a problem is located before going into “solution mode” through the use of appropriate futures and strategy tools;
- Taking a truly holistic and participatory approach, involving those to be affected by the work;
- Shared performance measures; and
- The need for governance structures to monitor and evaluate efforts.

Mr Juan Sadaba

Architect/ Managing Director, NEREI Emotional Intelligent

Urban Participatory Design through Technology: Birloki System. A network of interactive interfaces

Since the new Information Technologies entered our daily lives, our behavior, habits and way of thinking/using our cities is taking a new shape. This social, technological and economic revolution demands a completely new approach to Urban Planning and the Strategic Development of cities. Big changes always carry both positive and not so acceptable inputs. The top-down driven control, efficiency and accuracy of facilities, mobility and the internet of things still present uneasy doubts concerning issues like privacy, public-private balance and other prickly aspects.

But on the other hand, technology gives us the opportunity to empower citizens with tools that can create a bottom-up built society and a really interactive and participatory environment. The new era of coding and hardware is being currently dominated by the big corporations and still the social/human aspects are being pushed forward mostly with analog resources, and still timidly by the use of digital resources. We need new technological solutions for the urban space that can change the way citizens talk to the city. We have to rethink our network of urban furniture/elements to facilitate a real liveable and human urban realm.

When we talk about Smart Cities we forget the emotional side, what makes us human and cities alive. The Birloki project that we are presenting in this talk is an interactive, adaptive and customizable network of urban elements that provide an interactive human approach to the existing and emerging problems of the city. We called the complete system U-PAD (Urban Participatory Design) and after being awarded, among others, at the Smart City Expo World Congress, the B-Awards, the Media Architecture Biennale and the Smart Cities Summit, will be deployed on the cities of Bilbao in Spain and is being discussed for some urban solutions in Singapore.



Ms Helen Scott

Director, Core Sustainability Services

The Evolution of Climate Adaptation/Resilience Planning in Asian Cities: Lessons for Australia?

In the 1990's, local governments were getting their heads around the term climate change mitigation, and what role they had to play in an issue of global proportions. Enter the decade of the 2000's, and as well as mitigation, the discourse shifted to incorporate ideas of climate adaptation, and the perceived front line role that local governments would need to play.

The number of approaches and tools to help local governments understand what the localised impacts of climate change may be, and what role they can play in lessening these impacts has proliferated in the past decade. However, there has also been a very clear evolution of these approaches targeted at local governments, moving from risk-based language and methodologies, to a broader vulnerability approach; and now we see a resilient systems dialogue dominate the arena.

Nowhere can this evolution be more clearly demonstrated than in the climate adaptation/resilience programs being delivered within Asian cities. This presentation will look at three programs that have been developed and delivered in Asian cities in the last decade: the GIZ funded Policy advice for environment and climate change project (Paklim), UN-Habitat's Cities and Climate Change Initiative (CCCI) and the Rockefeller funded Asian Cities Climate Change Resilience Network (ACCCRN). It will draw out their underlying methodologies, and discuss which might be most applicable in a diverse, Australian context. Are there lessons that Australian local governments can learn from how these projects have been implemented in Asian cities?

Mr Roman Spur

Senior Consultant, Viridis Australasia

Urban Farming on a Multi-Unit Rental Property

Liveable cities are those that are healthy and sustainable. This presentation shares the opportunities and challenges of a five year transformation of an ordinary suburban block of rental units in inner-city Brisbane into a productive urban farm, and the affect it has had on the surrounding community including an increased financial return for the landlord.

Urban agriculture has sat on large blocks of land at the fringes of the city, however the Spur family have pioneered novel ways to produce the majority of their family's food needs, such as, organic fruit, vegetables, seeds, grains, eggs, and honey within the confines of a multi-unit inner-city rental property. They reached their goal to not only reduce their environmental impact but also to return to a home-based, family-centered and self-sufficient way of living whilst simultaneously activating, inspiring and empowering the local community.

In this talk, Roman tells the story of SpurTopia, his urban farm that has strengthened the community and built resilience in the city having quickly rebounded after two extreme climatic events. His urban farm was developed following a repeatable staged process building towards a holistic and integrated outcome.



It has involved:

- 3 dimensional gardening on-top of a concrete base,
- farming urban animals like chickens, honey bees and worms (whilst reducing insects in the surrounding community),
- harvesting rainwater and grey water,
- a \$10 transportable solar oven (that replaces the conventional oven and operated unhindered right through recent power outages),
- a home-made solar hot water system
- following organic gardening principles to support food sovereignty, and
- inspiring and empowering the local community by sharing and swapping produces and expertise.

SpurTopia, is readily repeatable and even transportable, suiting the needs of both property owners and tenants. It is scalable, and can be adapted to suit a wide range of dwellings. In this session, Roman will share his family's experience, knowledge and inventions with a view to stimulate a conversation with local governments, urban planners, designers and property developers.

Ms Sally Swanson

President and CEO, Sally Swanson Architects, Inc.

A City that Works for Everyone: An International Design Perspective on Incorporating Strategies of Universal Design and Sustainability -From an Urban California Elementary School to the 2014 Sochi Winter Games to the 2018 PyeongChang, South Korea Olympic

Everyone deserves a chance to participate from the school yard to the world stage. Universal Design (UD) is inclusive and provides design functionality for all people, not only those with traditionally diagnosed disabilities. How do we create invisible barrier-free environments that transition smoothly? UD principles give direction rather than correction so we present three cities, three real-world lessons on making UD work.

Ford Elementary, a new school in Richmond, California, shows how UD supports the whole child• beyond academic requirements to nurturing spaces. At Ford, Sally Swanson Architects (SSA) made the educational experience inclusive for a diverse student body, staff and community instilling ownership and pride beginning with bilingual community meetings. A seven-foot-drop across the campus was conquered without ramps; eco-plantings and bioswales absorb rain runoff and a community garden illustrates sustainability in action.

SSA was on the planning and design team commissioned to prepare Russia's International Olympic Committee bid to host the 2014 Olympic/Paralympic Winter Games. The task of creating an accessible environment was not just a massive design undertaking, but also required a great deal of education, political will and cultural change. As an architect, the aim was to profoundly push accessibility barriers. Had that happened?

For the 2018 PyeongChang, South Korea Olympic/Paralympic Village, SSA created UD standards for town/village circulation and construction, helping to achieve innovative barrier-free housing and athletic spaces in the early conceptual phases to ensure that an accessible path of travel is fully realized. Instead of an afterthought at the end of the design process, this framework provides accessibility solutions from day one. We include plans that describe the firm's work for this upcoming international event.



UD principles, when applied in the problem-solving development of site planning, building design and circulation, create invisible accessibility becoming completely integrated into the design process.

Ms Georgia Vitale

Associate, Arup

Co-author: Ms Georgia Vitale, Planner, Arup

An index for age-friendly cities: how does your city rank?

Two significant trends are currently directly affecting the population of Australia; responding to an aging population and increasing urbanisation. Our cities need to be more age friendly, but what does this mean and how do we measure their progression towards age-friendliness? Research in this area is well established (such as the World Health Organisation's (2007)'Global Age Friendly Cities Guide') yet there currently exists no highly accessible tools for measuring or quantifying age-friendliness within a city or across cities.

Arup's built environment and digital strategy teams alongside research partners at the University of New South Wales and University of Melbourne and a general practitioner have developed an index. Local measures, as developed through community surveys to give a broad perspective of age-friendliness in cities, were used to capture and quantify specific elements of an aging society.

The metrics were refined through a site visit and sharing of knowledge with an exemplar project, the Kashiwa community in Japan. The Kashiwa project was developed to better facilitate the country's super-ageing society.

The project has adopted a collaborative approach and showcases the results through an interactive online platform. The platform aims to enable a series of audiences (practitioners, decision makers and the public) to explore the index and use it to inform the design and planning of physical and societal infrastructure to enable the index, and thereby the quality of life of ageing populations that it represents, to improve.



Mr Marius Vogl

Partner, Sustainable Property Consultants

Creating sustainable communities in public housing redevelopments

Public housing redevelopments in Australian cities have been undertaken in the past with the aim of rejuvenating the living environment for low income residents. This approach has overlooked the social and economic factors necessary to create sustainable communities.

A new planning approach has been applied to the Carlton Housing Redevelopment (VIC) project to create the social, economic and environmental factors needed for a sustainable community:

- Linking housing projects with local agencies and the private sector
- Connecting decision makers with residents in a Community Liaison Committee
- Integration of public and private residents
- High level environmental sustainability
- Introducing work and learning programs
- Improving safety and residents wellbeing
- Creating walking and cycling neighbourhoods in lieu of car-based transport

The Carlton project applied a collaborative approach to planning the redevelopment by working with the local community in conjunction with State and Local government, the private sector and local agencies.

The project is creating a new residential community that re-integrates the former public housing estates into the fabric of Carlton. 1000 new units are being developed together with new public parks, cycling paths, community gardens and an aged-care and retirement living centre.

Preview: <http://www.planning.org.au/whatson/2013-2>

Mr Tobias Volbert

Co-Founder, Spokesperson, 7 Senses Foundation

Co-author: Ms Linda Cupitt, Manager and Co-Founder, 7 Senses Foundation

7 Senses Street Day: Creating long term vision through tactical urbanism

Tactical urbanism and temporary interventions are increasingly common practice as means for design professionals to demonstrate the effectiveness or potential of a proposed design or plan. The underground

and phased nature of tactical urbanism has allowed small scale projects to flourish, however the challenge of embedding longevity remains. Specifically, how to cultivate the long term vision for change with tactical urbanist approaches.

The 7 Senses Street Day is an annual event that temporarily transforms civic spaces into community focussed places that engage our seven human senses and allow for participation by all ages and abilities. Spaces are curated by the overarching 7 Senses design guidelines.



In 2014, the Street Day was approached with a tactical urbanist heart and an ecological community development mind. The aim was to not only trial the effectiveness of interventions through tactical urbanism, but to embed a vision amongst the community for civic spaces that actively improve the inclusion and well-being of all.

As a result of this combined approach, the second annual 7 Senses Street Day saw a surge in community participation across Australia and a diversity in the type of civic spaces that were transformed. In addition to participation numbers, the ecological model employed during the planning phase empowered community champions to engage more deeply with planning processes being undertaken in their neighbourhoods and request more sensory focussed design.

The combined approach also benefited organisations whose members experience disability and subsequently inclusion and genuine participation are problematic. The process of supporting ownership allowed persons with disability to design and deliver tactical 'pop up' events and provided invaluable insight to the planning and design needs of persons with disability.

The presentation will include case studies of how the approach yielded long term attitudinal change.

Prof Charles Walker

Director: Colab, Auckland University of Technology

Co-authors: Dr Ricardo Sosa, Senior lecturer, Auckland University of Technology
Mr Ben Tuhoi Kenobi, Lecturer, Auckland University of Technology

Game Plan for a Liveable Auckland

The Auckland Plan (2014) rests on a rhetorical commitment to create "the world's most livable city". Yet, despite this global aspiration, citizens currently have little say in what actually constitutes livability in their specific locale, how it is to be realized, or how it might be experienced in everyday terms.

For urban theorist and activist, Jane Jacobs, "cities have the capability of providing something for everybody, only because, and only when, they are created by everybody".

This proposal posits a radically alternative Auckland Plan. We ask, how can citizens collectively question underlying ideologies, assumptions and values of the current plan? From this, how will they imagine, create and share new models of how to live together, differently? Furthermore, how might the city itself - as a complex interactive system of systems - respond to a multiplicity of citizens ideas, values, aspirations and challenges?

We explore these questions through the co-design of an open-source, multi-player serious game and open public database. The proposal combines interactive game technologies and participatory design methodologies, to develop new theoretical and practical models for living in this diverse city.

The open game/data platform creates a new digital Space of Appearance a living laboratory and new civic forum and affords new quantitative and qualitative understandings of urban liveability, community politics and participation.



We present work-in-progress towards designing a city game that supports collaboration between real urban stakeholders, whether researchers, activists, citizens, young people and policy-makers. The game stimulates socio-cultural interaction, negotiating, making and/or breaking rules, and the creative exploration of possible future scenarios.

Mr Michael Walker

Universal Design Facilitator, Department of Health and Human Services

Universal Design principles and sustainable community

Design is powerful and profoundly influences our daily lives and our sense of confidence, comfort and control. Universal Design allows everyone, to the greatest extent possible, and regardless of age or ability, to use buildings, transport, products and services without the need for specialised or adapted features.

Where conventional design caters for the 'average' person, Universal Design recognises that people have a range of capabilities. It can ensure and enable all people to access the buildings, services and experiences that most of us take for granted. It helps to provide more inclusive facilities rather than relying on minimum standards prescribed in building codes.

When implemented effectively Universal Design can underpin social inclusion and can be applied holistically to the built environment to encourage design that provides maximum amenity for the maximum number of people.

Like green design, Universal Design must be an integral part of design programming and the imaginative design process. It cannot be left as an add-on in a minimal compliance mode.

Universal Design is a user-centered process that evolves as designers and users broaden their own understanding, perspectives and experience by working with the range of users in a variety of environments.

Universal Design Agenda team presentation will include:

The Victorian Government Department Health and Human Service Universal Design Facilitator, Michael Walker will lead a practical, insightful, and informative discussion about how Universal Design thinking and principles can be applied in the sport and recreation, such as a procurement and planning process to influencing design outcomes for environments to cater for a range of users and abilities and how its use can lead to more active and engaged communities.



Ms Renae Walton

Senior Project Manager Climate Adaptation and Sustainability, City of Port Phillip

The City of Port Phillip's 'My Climate Tool': Using thermal and aerial mapping as an engagement and enquiry tool to assist in building the adaptive capacity of the Port Phillip community

'My Climate' is a new interactive tool developed by the City of Port Phillip in partnership with CSIRO. The web-based mapping tool allows residents to access user specific information in four areas: urban heat; winter heat loss, solar potential and rainfall capture.

In doing so 'My Climate' aims to assist residents explore sustainable home improvement solutions that will make them more resilient to the future impacts of climate change.

This presentation will take the audience through the process of creation and use starting with:

- The different aspects of the tool including the use of the solar atlas
- Development of the tool and the challenges of capturing accurate data
- How the tool is currently being used by the community
- Our plans to expand the tool's functions in the future

Also discussed will be how the datasets that inform the development of the tool are being used by different departments within Council and by academics to plan for urban planning and prioritisation of green infrastructure.

'My Climate' is an important community and staff engagement tool that demonstrates the incredible value that thermal and aerial mapping can provide to develop liveable cities that are adaptive to the impacts of climate change.

<http://www.enviroehub.com.au/articles/new-myclimate-tool>



Dr Gretchen Wilkins

Program Director, Master of Urban Design, RMIT University

Future Factory: towards new urban industrialism

This paper will present ongoing research into the design, siting and socioeconomic positioning of factory buildings and manufacturing processes in relation to the city. The massive logistical, infrastructural and environmental demands of 20th century mass-production pushed factories toward industrial zones. However the 'new industrial revolution' allows cleaner, smaller and more distributed production systems, all possible within, if not enhanced by, cities. Indeed, close proximity of producers to design, service and knowledge sectors proves vital to innovation.

Enabling this urban 'ecosystem' also supports socially and environmentally sustainable growth, yet outmoded urban policies often prevent it. A series of urban-industrial projects in a variety of cities will be presented and discussed, highlighting the urban, architectural and functional ways in which manufacturing might return to cities and thrive on the new service economies they are increasingly replaced by.

The projects propose new industrial building types integrated with or informed by cultural, residential or commercial spaces, ultimately aiming to increase public and consumer accessibility to processes of making and manufacturing at a variety of scales. The underlying agenda of this research is to resist the decline if not obsolescence of local manufacturing by reinventing it in a more integrated socioeconomic, cultural and commercial manner, in cities. The more significant aim is towards more diverse and resilient urbanism.

Mr David Wilkinson

Manager for Strategic Development and Economic Development, City of Casey

Creating jobs in the outer suburbs. The need to deliver and the consequences of failure

The City of Casey and Cardinia Shire Council in Melbourne's outer south east formed a new partnership in 2010 to attract new business investment to generate new local jobs in what is a residential led growth area. More than 70% of the working population travel outside of the region to work, many traveling in excess of 60 minutes in each direction to their place of work. As part of a strategic drive to stimulate local jobs growth a joint venture by both Councils creating a new brand and region (The Casey Cardinia Region) to generate investment potential was created. With over 70% of the regions working population travelling to work outside of the region the consequences are increased congestion, impacts on health, a detrimental impact on sustainability, harm to the environment, a lack of social cohesion and economic leakage.

To address these issues and to generate new local jobs for local people the two Councils have embarked upon a partnership aimed at running an aggressive marketing and advocacy campaign identifying the Casey Cardinia Region as the place for business to grow in Melbourne's south east. Whilst there is a strategic need to attract new business to the region the partnership between the Councils is equally investing in identifying opportunities to grow existing business in the region to generate new local employment. This is being achieved, in part, by the City of Casey entering into a partnership with the private sector in delivering business incubator and co working facilities and services. This is already seeing significant success in creating new jobs.



Small but important steps in dealing with a strategic failure in growth planning for our cities. This fits in well with the themes of the conference particularly with regard to finding solutions to job creation and reducing commute times and the impact that has on sustainable communities.

The presentation to conference will set out the challenges faced by an outer suburban Council/s with rapid population growth; the need to create job opportunities for the local community to enable them to work, live and play locally; how partnering with a neighbouring Council can add value to what we do in Economic Development and the consequences of residential led growth in outer suburban areas if the issue of jobs is not addressed by all forms of government.

Ms Alice Woodruff

Senior Sustainable Transport Planner, UrbanTrans ANZ

New travel behaviours don't just happen: residential and workplace interventions

Newcastle's East End is a precinct set to grow with a major residential-led mixed use development. How can you make this a great place for more people and not a traffic-congested centre? This same question arises for most residential and commercial infill developments in Australia's major centres. A range of measures are needed to support a reduction in car travel to these centres but what's often left out are the designed interventions that help foster new active travel behaviours.

The right mix of uses, parking restrictions, urban design and available public transport will together shift more people to walking, cycling and public transport. But new habits aren't intuitive, often people who are used to driving will continue to look to that option for travel to a new work or residential location.

UrbanTrans transport strategy for the Newcastle East End; a residential travel plan for a 600 apartment development in Melbourne; and a workplace relocation to Macquarie Park Sydney are three case studies presented to demonstrate the contribution that targeted interventions have to support new travel behaviours. These interventions are designed and implemented as part of the development or relocation planning process and have actions tailored to residents, retail and office employees.

Mr Paul Woodruffe

Academic Leader, Unitec Institute of Technology

Activating neglected space through participation and intervention

This case study outlines the methodology, delivery and outcomes of a series of temporary and inexpensive public space initiatives and actions undertaken through a partnership between the Unitec Institute of Technology research group the everyday collective laboratory and the Avondale Community Action Trust.

This Trust is a community group established to promote a sense of place and belonging within a culturally and ethnically diverse neighborhood, and advocate for appropriate and consultative development within the town centre of Avondale, a suburban area within Auckland City New Zealand.



These art and design actions were designed to support the trust's work through making it a visible presence on the streets, and involved a multiple of interconnected events based out of a converted retail space within the town centre, these included pop-up site activities, and small scale sculpture interventions that were designed to engage the local people in community based and publicly active creative processes. This work responded to an identified need for public artwork to be the medium in which to deliver signals of positive change to the local residents and business owners in the visually run down and economically depressed Avondale township .

These projects enabled the knowledge and resources of a Tertiary Institution to flow directly into a community group in a way that local knowledge was valued, this ensured the knowledge transfer worked both ways. Local Government, Unitec and the residents all shared their experiences of problems and solutions to the question of how to build community spaces. Funding was between local Government and the Institution, with specific outcomes having been agreed to, these outcomes being primarily public engagement with the arts, data collection to enable community and small business networking, the prototyping of small scale, affordable and short timeframe public artworks and the promotion of the areas positive uniqueness. It also required a gateway design that could identify the use of an important geographic location to retain community identity, an identity that was at risk of being lost as a result of the Auckland Super City amalgamation process.

This series of small interventions and projects made a positive difference to the streetscape, created networks of local creative industries professionals who subsequently became empowered to work in the public arena, brought diverse cultures together and enabled the Avondale Community Action Trust to gain wide support within the community and so become a strong advocate for positive and inclusive urban development within the area.



POSTERS

Mr Alexander Jan Albrecht

PhD Student, Leuphana University Lüneburg

Digital Media Façades for Vivid Public Spaces: Promoting Dialogue, Participation and Social Innovation in Urban Environments

With digital media façades another technology is making its way into urban space. It offers diverse potentialities. To date these façades are primarily used for commercial purposes, but the number of non-commercially used digital public media has increased noticeably (McQuire 2011). Also some commercially used media façades have provided transmission time for non-commercial content. This is a promising sign for urban space, as it can convert invasive advertising platforms into open to the public community screens.

The content of such non-commercially used media can vary broadly, addressing a wide audience. They provide many possibilities for interaction and additional uses of public space, potentially fostering participation, dialog, social innovation and community building. Thereby they can contribute to the well-being of the communities involved (Osberg, 2003), making urban public space more vivid, ludic and experimental and cities more liveable. This research project explores the relationship among such media, their content, urban space and public life.

The goal is to reveal how media façades affect spatial uses in diverse settings and how these impacts vary due to media content. Four media façades locations in Berlin, Madrid, São Paulo, and Melbourne have been analyzed in terms of criteria such as population density, accessibility etc. In the second stage video data is being analyzed, which documents each location in four different situations, when the media façades: a.) is turned off, b.) is broadcasting linear media content, c.) is offering interactive media content, and d.) is connected with another media façades (visually or audio-visually).

This study considers: interactions, appropriations, or uses of space etc. First results show that locations need to hold specific characteristics, before any positive impacts can occur. Furthermore interactive media content, especially user generated content with a high degree of personalization, seems to be more appropriate than linear media content, if it is aimed to increase such impacts. The research project will reveal under which conditions large-scale digital public media work best in urban space and how to tap their full potentials.

Ms Karolina Bartkowicz

Research Assistant, RMIT

Co-author: Dr Judy Rogers, Senior Lecturer, RMIT

Green roofs and Urban resilience: An Evaluation Framework

This paper poses the question are greener cities necessarily more sustainable and resilient and if so for whom? It raises concerns about some of the easy assumptions that are made in urban greening discourses focusing in particular on green roofs. It also reports on a project that investigated the sustainability outcomes of green roofs through the development of an evaluation framework and the establishment and testing of pilot green roof modules at RMIT city Campus, Melbourne, Australia.



The evaluation framework interrogated the claimed benefits of green roofs and focussing on measuring performance across the three poles of sustainability using the pilot green roof project as a living laboratory. Landscape Performance and a Post Occupancy Evaluation (POE) was undertaken to identify social use of the space. The main purpose for undertaking a POE is to understand how well the project is addressing user's needs and design intent as well as identifying opportunities for improvement.

Key findings suggest that green roofs are not necessarily sustainable or resilient because of lack of attention to the three poles of sustainability along with discussion regarding maintenance regimes. The paper concludes with the observation that the way in which the term 'green' dominates discussions around rooftop plantings leads to assumptions being made about the benefits of all green roofs. What is needed instead is a much more rigorous debate about design intent and purpose.

Mr Nigel Cartlidge

Doctoral Student, Bond University

Co-authors: Dr Lynne Armitage, Associate Professor, Bond University
Daniel O'Hare, Associate Dean, Bond University

A Research-based Model for the Design of Public Space in Beach Precincts

This paper has emerged from a mixed methods case study of the urban design of three different beach precincts on the Gold Coast, Australia. The intent of the research was to understand how people value, use and relate to urban beach precincts so that their design, planning and development may functionally reflect the role that they play in people's lives.

The contemporary concept of urban design reflects the architectural, urban design and planning practices which are based on land-use planning oriented to the laissez-faire political doctrines that have dominated post-war development in Australia. Urban design guidelines have no statutory basis in Queensland in the governance of development. They are seen as advisory and open to definition by the dominant groups who control the governance of the Gold Coast, a city largely created by the influence of mass tourism and lifestyle products.

The case study identified that the dominant and special interest groups on the Gold Coast have designed public spaces that create constituencies of advantage and disadvantage. This has arisen due to the provision of public facilities that support favoured activities in the public foreshore parks and by private ownership of nearly half of the foreshore. This limits egalitarian access to the social, recreational and restorative benefits of the beach precinct.

This paper proposes an urban design and planning model for beach precincts developed from a case study which supports public access to activity, amenity and facility to restorative environments. This is intended to incorporate into the design of those precincts, the values found in the research to be associated with beach precincts. These values are relaxation, restoration and connection to nature in inviting, comfortable and secure public places.

Keywords: Accessibility, activities, amenities and facilities, governance, public space, restorative environments, urban design guidelines.



Mr Stephen Cheney

Managing Principal, dwp|suters

Co-author: Mr Rory Martin, National Sustainability Leader, dwp | suters

Community Futures

Projected population growth in our cities has the potential to adversely affect our communities and our lifestyles. This raises important questions around how will we provide enough housing, workplaces and green space, whilst we maintain and grow our productivity.

To extend our research into the development of robust communities, dwp|suters brought together experts from health, education, work, sport, residential, retail and seniors living and discussed the value proposition around community collocation in a national series of workshops. It is the outcomes of this research which we wish to share.

By gathering and consolidating diverse insights we have developed an overarching value proposition that informs our planning principles, land use, potential for shared amenities and increased marketability, together with benefits such as social cohesion and development of social capital, economic benefit and sustainability.

The questions we consider in this presentation are: Is increasing the density of our cities the answer? How can this be done so that our quality of life is protected in the future? The decisions we make now around the challenges of density and quality of life are important to all our futures.

Our Community Futures value proposition centers around nine key insights. Each insight will help shape how communities are planned and built in the future. The insights are as follows, Densification, Walkability, Intergenerational Communities, Central Hubs for Communities, Integrated Communities, Quality of Recreation Space, Adaptive Reuse and Community is Quality of Life.

Mr Thomas Coisson

Agrocampus Ouest, Department Economy, Management and Society, UMR Granem, Angers (France)

Suburban agriculture, zoning policies and land development

Urban sprawl is generally defined as the uncontrolled expansion of cities across space. It is a complex phenomenon characterized by its multidimensional aspect, both spatial and temporal, and its numerous determinants. The land-use profile of municipalities is one important characteristic of urban sprawl, as it describes the heterogeneity and diversity of land-uses. The main drivers of urban sprawl are households' income and transport costs, but also accessibility to public services or local policies (zoning, tax policies).

Finally, life-environment is an important driver: neighborhood externalities, appreciation of a quiet and peaceful environment, proximity to natural amenities and open spaces. We focus our study on this particular aspect. In the literature, little attention has been paid on the role played by agricultural landscapes. Yet, cities expansion precisely occurs in suburban areas, characterized by mixed agricultural and residential land-use. Besides, it is known that suburban agriculture is strongly influenced by its proximity to the city-center, and that its characteristics vary spatially.



Finally, we note that different types of agriculture may generate different types of landscapes which are positively or negatively valued by households in their residential location choice.

The question raised here is: Can the spatial variability of suburban agriculture and related public policies explain the diversity of land-use profiles in French municipalities within urban areas? We build a spatial dataset on a municipality scale, with land-use variables, socio-economic and geographical characteristics of municipalities and specific agricultural characteristics and agri-environmental policies that are likely to influence the level of amenities locally generated.

We obtain a set of compositional data that can be econometrically analyzed by using Dirichlet regressions. First results suggest that land-use profiles for municipalities located in French urban areas are strongly influenced by the usual sprawl drivers. However, the spatial variability of suburban agriculture also has significant effects on land-use profiles.

Mr Tim Conybeare

Studio Director, ASPECT Studios

Co-author: Mr Peter Phillips, Studio Director, ASPECT Studios

Rebound (measures of resilience in sub(urban) Adelaide

Resilience; Noun, 'the capacity to recover quickly from difficulties; toughness'

Adelaide is experiencing, in relative terms, a rapid growth of interest in the regeneration of some of the city's most forgotten places. While State politics focusses our attention on the revitalisation of the CBD through new planning regulations which allows for increased building heights and more flexible land uses, beyond our sacred Park Lands, there is a quiet revolution happening. There are two key areas where a process of renewal is having some remarkable effects and as a result, changing the landscape of urban growth in Adelaide's outer suburbs.

Playford Alive, Adelaide's newest urban village sits at the centre of some of the nation's most socio-economically disadvantaged groups. Best practice community engagement was integrated throughout the planning and design process of this new urban community with the specific aim to involve and inspire the community to develop a public realm that reflects community values, needs and aspirations, and fosters a sense of community ownership.

ASPECT Studio's design for Playford Alive Town Park is a project that demonstrates high levels of diverse participation and quality of design outcomes that can be achieved when there is genuine commitment to core principles of engagement. When the scope of influence is clear, the design team encourage aspiration and invite community driven responses, projects such as Playford Alive can deliver exceptional results and become a legacy that will be enjoyed by the community for years to come.

Port Adelaide, South Australia's heavy industry and shipping heart, a struggling peripheral city has a new plan set. The new 'Our Port' plan is very much about the local people and a shared strength of community. At its centre lies the waterfront Hart's Mill precinct defined by a cluster of beautiful heritage listed buildings associated with the flour milling industry.



Using case studies of recent projects, we will explore interventions that are assisting in the recovery of these communities (as well as some other secret treasures), resulting in a permanent shift in the collective mental map of greater Adelaide.

Mr Mohd Reza Esa

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Co-authors: Dr Anthony Halog, Lecturer, The University of Queensland

Mrs Farrah Zuhaira Ismail, PhD Candidate, The University of Queensland

Circular Economy Potential: Waste Minimization Strategy in the Construction Industry

Circular economy is an emerging notion that is focused on the principles of reduce, reuse and recycle; whereby its implementation can be done effectively at micro, meso and macro-levels. This study focuses on reviewing the potential of circular economy at micro-level towards waste minimization in the construction industry.

The suitability of circular economy to be a platform towards waste minimization in the construction industry is obvious by looking at the principles that are behind this concept. The main problem of the construction industry especially in developing countries is the dependency towards labour-intensive method which could influence the waste generation. Modern method of construction to manufacture the components (e.g. columns, beams, walls etc.) at the factory and to assemble the components on site has to minimize wastes.

Waste could be minimized at the source, which means the waste should be avoided at the production level by applying a cleaner production process. Construction industry processes need to be transformed by implementing modern construction methods that enhance resource efficiency. By manufacturing the components at the factory, the efficiency of the resources could be improved and at the same time, waste could be minimized. Therefore, an 'environmentally cleaner/greener' product could be delivered to the construction site and assembly could be done with minimum waste. Innovating the method of construction is a virtuous starting point towards waste minimization which could be achieved by getting the government support, financial aids, change of mindset and amendment of regulations.

Rigorous efforts should be taken in order to change the traditional practices in the construction industry by creating the awareness, optimizing costs and avoiding using foreign workforce. For instance, Malaysia has promoted the modern method of construction; known as Industrialised Building System (IBS) for many years. However, IBS is gaining low popularity among construction actors due to lack of readiness and perceptions towards its application in the construction industry.

To ensure that the modern method of construction; which incorporate the notion of resource efficiency in getting a great support from the construction actors, a lot of works need to be done in conjunction with circular economy. In achieving the goal of waste minimization, cleaner production needs to be incorporated in the construction industry by making significant changes at production level.



Dr Xiaoqi Feng

Senior Lecturer in Epidemiology, University of Wollongong

Food deserts and type 2 diabetes mellitus: a Sydney of two halves

Purpose: In Australia, there are an estimated 1 million people with Type 2 Diabetes Mellitus (T2DM) and another 2 million at high risk of developing T2DM. For T2DM prevention and management, a healthy weight and adherence to published health behaviour recommendations is important, but this leaves the efforts of the health sector open to inequitable interference by disparities in neighbourhood liveability. The aim of the 'Mapping food Environment in Australian Localities' (MEAL) Project is to assess inequalities in neighbourhood liveability with respect to T2DM risk within Sydney's metropolitan area, with an initial focus on access to different types of food outlet.

Methods: The MEAL Project is funded by the Western Sydney Medicare Local and critical oversight is provided by the Western Sydney Diabetes Prevention and Management Initiative Steering Committee, a multi-sector partnership committed to innovative research and translation using a 'whole of district' approach. Geographic Information Systems were used to develop and analyse spatial measures of food outlet availability across Sydney's metropolitan area and to assess those patterns with respect to geographical inequity in T2DM risk.

Results: Preliminary findings indicate the presence of significant spatial inequity in T2DM and food outlet availability across Sydney's metropolitan area. Blacktown in western Sydney, for example, contains some of the most disadvantaged areas in the city and has a T2DM prevalence of 6.9%. The affluent eastern suburb of Mosman, by contrast, has 2.5%. Initial food outlet availability was developed using the concept of 'food deserts', or communities where takeaways are available but otherwise lack access to healthier food options. Food deserts were more commonly found in Sydney's western suburbs.

Conclusion: Poorer neighbourhood liveability in Western Sydney likely contributes to higher T2DM risk. This work will be expanded to other liveability indicators and to different environs, such as the built environment around hospitals and schools.

Mr Joel Fredericks

PhD Candidate, University of Sydney

Digital Pop-Up Engagement: Augmenting Community Engagement for Healthy Built Environments

This talk explores the opportunities of using new information technologies for community feedback on the establishment of infrastructure that encourages healthy lifestyles within built environments.

Community engagement forms a crucial component of urban planning for the creation of policies and the development of infrastructure in Australian cities and regions. However, current methods of community engagement, such as face-to-face workshops and online forms, only reach certain demographics of the population¹. As a consequence, opinions of community members classified as 'hard to reach' are not reflected in the community engagement process. Traditional community engagement practices have been shown to attract an unrepresentative proportion of the wider community, which can impact on the implementation of infrastructure within the built environment².



New information technologies offers opportunities to devise novel community engagement strategies that can engage previously difficult to reach, as well as new, segments of society³. New and creative approaches to community engagement are being afforded through research that investigates the use of information technologies within urban environments.

The talk will discuss the prospect of enhancing community engagement by customising existing information technologies, to be deployed in an urban space, for community feedback on infrastructure that encourages healthy lifestyles (Figure 1). The talk will further discuss a pop-up shop style concept that will incorporate the information technologies (Figure 2). The aim of this concept is to draw attention to the engagement activity, create a sense of curiosity, and provide a space for participants to interact within an urban environment.

Based on these considerations we will discuss how a framework can be established to undertake community engagement that identifies residents concerns relating to healthy built environments, more specifically it will focus on the integration of parking and cycling lanes, walkability in communities and access to healthy food options.

Mrs Fiona Fullard

Environmental Planner, Latrobe City Council

Lighting Latrobe

As the hub of Victoria's brown coal generated electricity industry the Latrobe City municipality is often perceived to be slow in up taking energy efficient technology. Latrobe City Council has embarked on an energy efficiency upgrade of its Category P street lights and internal lights in large community buildings with LED lighting replacing existing lights and providing a visual demonstration of Latrobe City's ambition to pursue a significantly more sustainable future.

The project, 'Lighting Latrobe', managed entirely by council, involves the replacement of approximately 6000 80 watt mercury vapour street lights with 18 watt LED lights on residential streets and the replacement of over 2200 lights in five large community buildings with LEDs.

The street lights being replaced are predominantly electricity distributor owned standard assets. Standard council owned lights will also be replaced and the project will complement a comprehensive inventory of Council owned street lights and poles.

In total, this project is expected to cost \$2.82 million with significant annual financial and environmental savings of approximately \$600,000 in electricity and maintenance costs, over 2 million kWh of electricity and 2900 tonnes of CO₂ eq coupled with the further benefits of LEDs including no mercury and improved light distribution.



A/Prof Piyush Hajela

Associate Professor, School of Planning and Architecture

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Dimensions of Public Spaces in Indian Market Places: Feelings through human senses

The significance of public spaces is on a rise in Indian cities as a strong interaction space across cultures and community. It is a pertinent gathering space for people across age and gender, where the face keeps changing with time. A public space is directly related to the social dimension, people, comfort, safety and security, that, it proposes to provide, as inherent qualities. The presence of these and other dimensions of space, together with related equitable environments, impart certain quality to a public space. The higher the optimum contents of these dimensions, the better the quality of public space.

PUBLIC is represented by PEOPLE through SOCIETY and COMMUNITY, and SPACE is created by DIMENSIONS. Society contains children, women and the elderly, community is composed of social, and religious groups. These behave differently in different setting and call for varied quality of spaces, created and generated.

Public spaces are spread across a city and have more or less established their existence and prominence in a social set up. While few of them are created others are discovered by the people themselves in their constant search for desirable interactive public spaces. These are the most sought after gathering spaces that have the quality of promoting social interaction, providing free accessibility, provide desirable scale etc. The emergence of public space dates back to the times when people started forming communities, display cultures and traditions publicly, gathered for religious observations and celebrations, and address the society.

Traditional cities and societies in India were feudal and orthodox in their nature and yet had public spaces. When the gathering of people at one point in a city became more frequent the point became more accessible and occupied. Baras (large courts, Chowks (public squares) and Maidans (large grounds) became well known gathering spaces in the towns and cities. As the population grew such points grew in number, each becoming a public space in itself and with a different and definite social character.

The author aims at studying the various dimensions of public spaces with which a public spaces has a power to hold people for a significant period of time. The human senses here are not referred to as taste, sight, hearing, touch or smell, but how a human senses collectively respond to when stationed in a given public space. The collectives may reflect in dimensions like comfort, safety, environment, freedom etc. Various levels of similar other responses would be studied through interviews, observations and other scientific methods for both qualitative and quantitative analysis.



Mr Jeff Humphreys

ANZ Planning Discipline Chair, Cardno

Planning Great Australian Cities: The Case for a Glasshouse Urban Corridor in South-East Queensland

Most broadly, this paper is directed towards long-term issues around developing the four future major metropolitan regions of Australia: Sydney, Melbourne, SEQ and Perth. First, the research looks at likely scenarios of population distribution in Australia towards 2050 and the reasons for and implications of growth in these four regions; the second theme is that future distribution of population growth will be strongly related to economic trends that are likely to endure into the future, namely the ongoing concentration of economic activity that will be knowledge-based and tend to locate in the hearts of these city regions.

Thirdly, the paper will be generally directed towards exploring the desirable shape and structure of these four Australian metropolitan regions into the future, to optimise liveability and other relevant qualities. The propositions that are explored as a backdrop to the main question to be examined include:

- Population growth will continue to concentrate in these four regions;
- Economic activity will be concentrated in the hearts of these regions;
- That people will therefore live at higher densities near the middle, or seek to commute – providing for commuting to the inner city quarters by public transport is a critical challenge [this is the subject of research being undertaken by the author, around the future propensity to commute to the middle].

While the paper is intended to be based on and relevant to each of these four city regions, the main focus of the paper is South-East Queensland which has some particular characteristics and potential, including because of its relatively rapid population growth; the central question is, in view of these and other relevant factors, whether it would be advantageous in SEQ to develop a Glasshouse Urban Corridor as the major element of promoting primarily a linear metropolitan urban form, extending from Sunshine Coast to Brisbane to Gold Coast.

Footnote

The examination of this question has implications for the four prosperous capital city regions. Since these regions now account for 66% of Australia's population and are likely to absorb together about three-quarters of its future population growth, their efficient functioning and economic success is vital to Australia's future prosperity; likewise the urban quality of these city regions, especially their central suburbs, will be critical to the way that Australia is perceived and the quality of life of a large proportion of Australians. In passing, the paper comments on "self-containment strategies" typical in outer suburban local government planning strategies.

Key Questions

The research work generally is intended to explore desirable norms for metropolitan structure, which economic trends suggest should include infill close to the city centre, and mid-ring suburbs and outer suburbs connected to the middle by very fast transport. The urban structures including metropolitan transport systems of London and Paris, for example, provide interesting parallels.



The key focus however is to look at the situation in SEQ and whether and to what degree it would be desirable (economically and socially) to foster much better connections between existing major population centres on the Sunshine Coast and Gold Coast and jobs and enterprises in the middle of Brisbane, such that it becomes viable to choose to commute to the centre from SC and GC, and more convenient for business synergies too. When the actual greenfield land opportunities are factored into this analysis, the main question becomes whether it is advantageous to develop a Glasshouse Urban Corridor as the major element of promoting primarily a linear metropolitan urban form, extending from Sunshine Coast to Brisbane to Gold Coast. Focusing SEQ greenfield population growth into this extensive development area would provide the financial underpinnings for massively improving public transport between this corridor (including the southern Sunshine Coast at least) and central Brisbane.

Is this a great opportunity to develop the foundations for a third successful Australian metropolitan region, in SEQ? Then does this thinking have ramifications for Newcastle, Wollongong, Geelong, Ballarat, Bendigo and Perth?

Prof Tor Hundloe

Professor, Bond Uni

The Gold Coast Transformed: From Wilderness to Urban Ecosystem

The title of my paper is the title of the book published by CSIRO Publishing, March 2015. T.Hundloe with B.Mcdougal and C.Page are the editors.

All contributors are from the Sustainable Development program at Bond University.

The conference paper will take up the major themes of the book.

A/Prof Mehmet Inceglu

Assist.Prof., Anadolu University

Analyzing Playgrounds in Eskisehir

Children, who are the most weak people about sensibility and telling their desires clearly, act differently at every age phases. Because of this, designs must appeal to children about whole ages and features which are made especially for them. Play grounds are places where children spend their times commonly. But when these play grounds were observed, that can be seen, playgrounds can't meet children's need and because of this they become quitted places. This is the evidence of not designing playgrounds according to the sustainable parameters.

In this article, sustainability concept was defined and clarified how it must be use in design. 5 play grounds have been modified as facilities in Eskişehir according to their location's closeness and serving the same area. After current state had been told, suggestions have been offered about the design. The aim of article is analyzing the playgrounds according to sustainability parameters, telling the absence of current state and offering suggestions so that it can give an idea for the new sustainable frameworks.

Key words: Child, Play Grounds, Sustainability



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Transitioning Sustainable Construction towards a Disaster Resilience Built Environment in Malaysia

Built environment is a term used to describe a human's version of the surrounding environment. We humans recreate our surroundings to adapt and cope with the changes such as urbanization, lifestyle, needs and demands of the people, climate and environmental changes, and many others. Urbanization changes our built environment. More people are now occupying the city created for the urbanization, leaving the rural areas behind, to be eventually converted into another urban area. 54 per cent of the world's population lives in urban regions, and projections suggest this will keep increasing until at least 2050.

In alignment with urban system transformation, smaller and medium countries with low- and middle-income in Asia have been rapidly growing since the year 2000 compared to the other parts of the world. This can be seen apparently in Malaysia. In coping to the global urban standards, transportation and infrastructures have been upgraded and more buildings for commercials and dwellings are provided to meet the increasing demand. Unfortunately, the environmental aspect is always being compromised. The massive and aggressive construction activities have taken its toll on the environment. This has directly impacted the built environment in Malaysia. The scorching hot weather, flash floods, landslides and the urban heat island are among the alarming signals to transition towards a more green and sustainable approach in development activities. Aware of the destructions caused from the construction industry to the environment, green and sustainable initiatives have been encouraged by both government and private sectors. Amongst others is to adopt and integrate the sustainability principles into existing construction practices.

Despite the initiatives, the implementation of sustainable construction is still at low level. There are still many challenges in implementing a successful sustainable construction in Malaysia. The access to knowledge, the technology, the awareness, the expertise in the area, the availability of the materials, the experience, cost, political factors, and participation of the community and the key players in the construction are amongst the hindrance. Unfortunately, with the vulnerability of natural environment to the climate change and the frequent occurrence of "human-triggered" disasters such as flood, landslide, typhoons and etc. we need more than just mediocre sustainable construction practice. The transition towards more sustainable and resilient approach in construction would make a tremendous positive recovery to the current built environment and it could mitigate the catastrophes caused by the effects of climate change phenomena. These issues would be discussed in the conference in conjunction with pursuing a more sustainable and resilient built environment in Malaysia.



Mr Richard Lau

Technical Director, Hyder Consulting Pty Ltd

The Sustainable Cities Index

The recently published ARCADIS 2015 Sustainable Cities Index., which was based on research conducted by the Centre for Economics and Business Research (Cebr), looks at 50 of the world's leading cities, ranking them according to environmental and financial performance, and quality of life factors.

The purpose of this report is to take 50 of the world's most prominent cities and look at how viable they are as places to live, their environmental impact, their financial stability, and how these elements complement one another.

Sydney and Melbourne ranked 11th and 17th on the overall sustainability index. To transform a city or region into a vibrant, world-class hub requires a framework and comprehensive plan that has the support of government, the private sector and citizens.

The pattern of learning from others makes the ARCADIS Sustainable Cities Index a very interesting tool that can be used to gauge how cities are seeking to strike the balance between People, Planet and Profit and the interdependencies between them.

It is through taking insights such as this and seeking global expertise and best practice that city leaders will be able to achieve their ambitions and create cities with a stable, sustainable future. Sydney and Melbourne are expected to be under different long and short term growth pressures. City leaders must act to address the sustainability issues with urgency.

This paper will discuss the finding of the Sustainability Index and its implication on the directions and strategies that can be adopted by Australian cities to improve and maintain our cities sustainability to cater for future growth.

Mrs Rebecca Madill

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Co-author: Dr Hannah Badland, Senior Research Fellow, The McCaughey Centre

Access to health services in urban growth areas: a review of the literature

Introduction: Population growth is predicted to increase, and in the Australian context, this growth is predominantly occurring in urban growth areas, located on the fringes of major city centres. Simultaneously, there are pressures on infrastructure spending with the increased population placing substantial demand on health services located in urban growth areas.

Objective: Access to health services is a key social determinant of health. Providing health services in urban growth areas as they develop can help reduce health service access inequity.

Methods: This presentation explores literature regarding primary and secondary health services access in new urban growth areas. Academic and grey literature was sourced and reviewed.



Results: Themes identified included spatial and social access to health services. Provision of health services are currently located more centrally compared to urban growth areas.

Conclusions: We found a dearth of studies considering health services access in urban growth areas. Further research is required to examine how residents in urban growth areas access health services to help reduce health access inequities.

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The Social Life of Commercial Streets

The social life of cities is a key concept related to social cohesion, which has been the subject of extensive studies in several disciplines including sociology, psychology and built environment. Social life studies conducted in the built environment discipline have mostly focused on city centres; while the significance of neighbourhoods as integral elements have been sometimes overlooked. As a result, this research is specifically exploring a commercial street in a residential suburb. Suburbs are perceived to be lacking in vitality and street life. The method of inquiry in this research investigates how the physical characteristics of commercial streets can either promote, affect or mitigate the social life of neighbourhoods and generate a sociable environment. This study captures the social behaviour of a commercial street in Highton, Geelong, Australia.

This paper utilizes a qualitative approach to the study of the social life of commercial streets. The main methodology used in this research is recording, documenting and mapping users activities through behavioural observation. The observations have been conducted in four days (on two weekdays and two weekends). The case study has been divided into eight shots that are similar in length. Short movies of 30 seconds have been recorded from each shot, every two hours from 8:00 am to 10:00 pm. Afterwards, the movies have been transmitted into street mappings, documenting the type of activities, placement of activities, gender and approximate age by exploiting suitable pictograms.

The results show how concentration in design and layout, soft and permeable facades, sidewalks features, urban furniture and greenery and personalization of the sidewalk have affected the patterns of activity in the Highton commercial street. Better understanding of how neighbourhood environments influence the social life of neighbourhoods can provide academics and professionals in architecture and urban design with sound evidence on which to base future research and design.



Mr Hamid Moayyed

PhD student, University of Wollongong

Measuring the 'healthiness' of food outlet types in Australian suburbs community food environment

The availability and accessibility of food outlets, together with quality of the food available therein, appear to impact on food choices and dietary patterns among neighbourhood residents. Classifying food outlets as more healthy or less healthy can help evaluate the nature of the healthiness of the food environment in these neighbourhoods. 24 different food outlet types were identified from an observational audit of Australian suburbs food environments. A purpose-designed questionnaire was developed to obtain expert opinion on the relative healthiness of food outlet types using Delphi method with two survey rounds. At the beginning of the Delphi survey, original scores were proposed for each food outlet type based on available literature, classifying them into 5 categories of healthiness. Median scores for food outlet types from Rounds 1 and 2 were highly correlated with the originally proposed scores (0.97 and 0.96 respectively, $p = 0.01$). A healthiness score is proposed using the median scores of round 2 of this survey to compare food environment across Australian suburbs; and further studies can explore relationships between the suburbs healthiness score and diet habits of the suburbs population.

Mr Andrew Munya

PhD Candidate, The University of Auckland

Measuring urban agriculture potential; A review of emerging trends and methodologies

This study reviews current methods used in assessing urban agriculture (UA) potential at various scales; Mega, meso and micro. It then employs lot suitability analysis to examine the potential for urban agriculture at the suburban (micro) scale. Lot suitability analysis in three different residential blocks in suburbs of varying density from the city center is used to employ three different techniques to examine three variables that are key to food production i.e solar access to ground level, soil fertility and rainwater roof harvesting.

These suburbs are high density-Mt.Eden, medium density Sandringham and low density-New Lynn. Simulation is used to determine the solar access to ground level, basic soil tests and organic matter content are determined through laboratory experiments and simple mathematical equations are used to determine the rainwater roof harvesting potential. Results indicate that considering solar access and water availability only, low density New Lynn has the greatest potential for UA with limited soil fertility levels. If water and soil fertility are considered, medium density Sandringham has high potential but with limited solar access. High density Mt Eden has no potential for UA unless vertical gardening is considered.

Further analysis indicates that the variation in soil fertility and solar access maybe due to previous construction technologies of the two suburbs and housing patterns and densities respectively. This indicates the strong influence construction technology and urban morphological factors may have on UA potential and suggests that using cumulative spatial analysis to measure UA potential may not necessarily reflect the feasibility of such potential. Recommendations are made for further research in exploring the potential for UA in the suburbs.



Dr Megan Nethercote

Research Fellow, RMIT University

Residential Mobility in Melbourne: Householder Perspectives

The complex flow of households into and out of our city's dwellings is highly significant. Each household's move is highly personal in its logic and in its effects, yet it also forms part of a collective sequence of movements, the sum of which transforms the very fabric of our cities. Critically, this residential mobility is implicated in the reproduction of urban inequalities.

Over the last two decades, and encouraged by the proliferation of longitudinal datasets, robust quantitative research approaches have enriched our understanding of broad residential mobility trends and revealed many of the motivating factors and constraints that contribute to our decisions to move (or not move) homes. However, there are gains to be made in addressing the qualitative research paucity in this area. Direct engagement with householders yields rich descriptive accounts of how individuals make decisions about their housing consumption, as well as the lived experiences of the associated moves. These clarify the more subjective dimensions of residential mobility processes.

This presentation reports on the first phase of a two-phase interview process with 90 households in Melbourne, as part of an ARC Linkage grant on residential mobility for affordable and liveable city housing futures. Semi-structured interviews were used to capture households interpretation and understandings of the intersections of personal mobility biographies with trajectories (e.g. employment and family) and transitions (e.g. events such as marriage, childbirth or retirement), as well as to the housing market and, more broadly, the city.

The stories that householders tell about their attempts to meet their housing needs, priorities and aspirations within contemporary urban contexts reveal the local nuances of urban housing consumption. These contribute to our understandings of the complex relationship between urban liveability and affordability concerns and dynamic residential mobility processes, in transforming the fabric of our cities.

Prof Marius Pieterse

Professor of Law, School of Law; University of the Witwatersrand

Geography, marginalisation and the performance of the right to have access to health care services in urban areas

In an attempt to advance rights-consciousness in urban planning, this paper considers the links between geography, mobility and the accessibility, availability, acceptability and quality of health care services in urban areas, within the broad theoretical framework of the right to the city. Its spatial focus is on Johannesburg, South Africa's largest and most diverse city, whereas the South African Constitution (which guarantees justiciable socio-economic rights) provides the legal framework for the discussion.

While the issues raised are thus peculiar to the developing world, the theoretical links drawn between the different rights-related indicators for access to health care services are instructive also for policy makers in developed countries.



In particular, the paper advances that the physical availability of health services, in and of itself, is not a sufficient indicator of meaningful access to health services.

To illustrate, it elaborates on the manner in which and the sites at which residents of Johannesburg access health care services, as well as on some of the obstacles they face when attempting to do so. Examples of geographic and target group-specific attempts at overcoming certain obstacles to accessing health care are also briefly discussed.

Ms Tuiloma Lina Samu

PhD Candidate, Massey University SHORE Whariki Research Centre School of Public Health

Future Streets-Te Ara Mua: A praxis collaboration project for the people of Mangere, Auckland

Mangere is one of Auckland, New Zealand's biggest suburbs with a population of over 60,000 people. It has one of the highest numbers of Pacific peoples in the world making it a vibrant community. With the location of New Zealand's biggest airport within its boundaries, Mangere is the gateway to Auckland and Aotearoa. Mangere also has a negative reputation for being an area of high deprivation in terms of health, housing, employment, education, income levels, crime perpetration and social equity.

In 2012 a team consisting of researchers, facilitators and experts from several universities (Massey University, the University of Auckland, AUT and the University of Otago), transport agencies and research consultancies was formed and chose Mangere to undertake a transformational project, in partnership with the Auckland Council owned agency Auckland Transport.

Te Ara Mua - Future Streets' purpose is to make it safer and easier for pedestrians, cyclists and drivers in Mangere to use its incredibly busy roads and open up its poorly designed enclosed pathways. This is to be done by using innovative means in road and footpath design; a fitness circuit funded by the local Mangere-Otahuhu Board of Auckland Council, as well as utilising visual interventions that reflect Mangere's Maori and Pacific historical significance in today's world.

With all of the expertise on the Project Team, there is and has been a total commitment to getting as much community engagement and ownership of the Project so that its impacts will be long-term lasting for the people who live there, including the mana whenua, the traditional Maori indigenous people of the land of Tainui waka, Waikato and Waiohau iwi, Te Akitai and Te Ahiwaru hapu.

Please have a look at our Te Ara Mua Future Streets Mangere website
<http://www.futurestreets.org.nz/>



Ms Helen Scott

Project Manager, Global Compact Cities Programme

The Role of Local Governments in promoting Corporate Responsibility

The world has slowly climbed out of the economic crisis that it plunged into several years ago, and in the wake of that crisis, the spotlight has been placed on the need for greater corporate responsibility, and the role that governments can play to foster its adoption. In addition, the constrained budgets of governments have increased interest in ways to stretch resources to achieve development outcomes.

Although much of the responsibility for facilitating corporate responsibility falls to national and state governments, city and regional governments also have a role to play. Cities and their associated regions have a significant impact on the way organisational entities operate.

Through areas of control and influence, such as mandated laws and regulation, softer mechanisms such as awareness raising, partnerships, purchasing and provision of services, cities and their regions can facilitate more sustainable means of operation for organisations within or near their geographic boundaries.

Research exists outlining the mechanisms and opportunities for national and state governments to influence corporate responsibility; however, there is little city-specific research that provides guidance to city decision-makers about how they can influence the private sector within their borders.

This presentation seeks to address this gap, by focusing on the mechanisms particularly available to city and regional governments to influence the corporate responsibility behaviour of the private sector operating within their jurisdiction. Interesting questions are posed for Local Governments, particularly around what role they can play, compared with what role they should play.

Mr Darren Sharp

PhD candidate, Curtin University Sustainability Policy Institute

Asset mapping and social innovation for low carbon communities

Low carbon community programs that encourage citizens to reduce their carbon emissions have been subject to various government and civil society trials in recent years including Transition Towns and Sustainability Street. Behaviour change programs using social marketing techniques have had mixed success in community carbon reduction because of a focus on individual control and lack of systemic context. Asset-based community development (ABCD) is a strengths-based tool that has been successfully used in the community sector to reveal the hidden assets of individuals and views communities as the starting point for change and abundant in capacity for sustainability leadership at the grassroots level.

This paper will detail the development of a low carbon community trial known as Livewell Yarra, a 'Living Lab' action research project funded by the CRC for Low Carbon Living in partnership with the City of Yarra and the Yarra Energy Foundation. This research uses asset mapping as a method to reveal the latent knowledge, interests and skills of trial participants and mobilise these strengths to meet sustainability goals.



Participatory co-design is being used to enable participants to develop social innovations for carbon reduction in their local community which could take the form of community gardens, active transport or neighbourhood-based sharing initiatives. This paper will provide an overview of the first Livewell trial and explore how asset-based approaches and social innovation can build capacity for groups to take individual and collective action to reduce carbon emissions for their own benefit and that of the wider community.

Dr MiJoung Shin

Senior Researcher, Korean Environmental Planning Studies Institute

Variations of pedestrian activity in urban residential blocks: A case study of the Gangnam area in Seoul

The most dramatic change with Korean residential blocks in the last 40 to 50 years has been the adaptation of apartment from the western area to the low-rise and detached housing blocks of the Korean urban context. Apartments entered the stage of Seoul residences in the 1950s, and this evolution has developed as huge apartment complexes during the new town developments of Gangnam and Yeouido in the 1970s. Recently, apartment complexes have become commonplace through projects for redevelopment, regeneration and reconstruction. Nowadays three types of residential blocks have become popular in the Korean urban context and they are 1) low-rise, detached housing block, 2) mid-rise, plate-shaped apartment complexes, 3) high-rise, tower-shaped apartment complexes. This study, which examines residential blocks of Gangnam that consists of these three typical residential blocks will examine residential street activity. The street activity analysis is divided by people counting and activity sorting.

On the stage of physical environments of these three typical residential blocks, low-rise, detached housing block is surrounded by commercialized principal roads and mixed use areas. The buildings of these residential blocks are all different in their height, shape and function. The block has a narrow and linear street pattern, a lot of land pieces with highly dense developed private buildings, and the streets are shaded with high-density residential conditions.

However, the block is well connected with various urban amenities and neighbor environments, because all the gates of buildings face the street as well as each other in order to allow easy access to the block from all three sides of the block. 'Mid-rise, plate-shaped apartment complexes are surrounded by principal roads and a single use area. The block associated with several land pieces of super blocks, have parallel street systems between vehicles and pedestrians, and have an irregular or linear type of street pattern. All the buildings in the block are similar in function, shape and height. There are view corridors available by the huge spaces in between the buildings and well lighted conditions are created by the south facing buildings. However, the spaces between the buildings are parking spaces, so the block is not well connected with its surroundings due to its limited access and fences. High-rise, tower-shaped apartment complexes are only land pieces of one super block, making sure that the ground level is a pedestrian only zone by distinctly dividing the street system between vehicles and pedestrians. All the buildings are similar with its single use, shape, height and the street is shaded by the high-rise buildings as well. This residential block is a closed (gated) structure to the surroundings with its limited access, fences and varying ground levels between the blocks and its surroundings.



Street activity analysis is divided into people counting and activity sorting. According to the people counting analysis, the low-rise, detached housing block is more crowded at night and on weekdays rather than in the daytime and weekends. This is due in part by the fact that the block is surrounded by commercialized and business purpose properties where the residents' crossing points are in mixed use areas and public transportation (Underground Station) is nearby. Street activities originate from both sides, but it is mostly from visitors living outside of this block as opposed to the residents inside this particular block. Therefore, it is safe to conclude that various purpose properties are directly linked to the activity on the street because there are distinguishable number of pedestrian activities at all times. On the other hand, the pedestrian activities for both complexes are not nearly as crowded as the 'low-rise, detached housing block'.

There are huge stream of busy pedestrian activities and the morning rush hour is busier than the later afternoon surge where all users of the area are either commuting from either schools or offices. In the mid-day, there are fewer activities on the residential streets and the pedestrians are accessing a underground station, school, community center, senior citizen center or the neighborhood commercial district. The remarkable results of the high-rise, tower-shaped apartment complexes are as follows. During the weekend, street furniture is provided, a pedestrian only zone is prepared, and ample parks exist between the buildings. It is also close to a underground station and there are many playgrounds and fountains. With a neighborhood commercial district nearby as well, this is a ideal area for meeting others because there are so many pedestrian activities available to residents of all ages. Activity sorting analysis is a research methodology from Jan Gehl's activity categories based on his written material *Life between Buildings*. From the book, there are three major activities on the street such as Necessary activity, Optional activity and Social activity.

The author applies Jan Gehl's activity categories to the street activities on the three types of residential blocks in Gangnam. According to the activity sorting analysis, the necessary activities on the low-rise, detached housing block are somewhat diverse, energetic and it contains many of the 'Necessary activities' of the people's lives. However, the necessary activities on the other two apartment blocks are simple and people pass away in a hurry. The result in the quantity and quality of 'Optional activities' in the low-rise, detached housing block and mid-rise, plate-shaped apartment complexes are poor, because both residential blocks are weak in its pedestrian safety, lack of street activity motivations and dirty street sanitary condition. The 'Optional activities' on the high-rise, tower-shaped apartment complexes are somewhat different.

Diverse and higher quality of activities is caused by the right number of street furniture placed on the street along with a good pedestrian safety zone and superior street maintenance conditions. The social activities on the low-rise, detached housing block are poorly recorded, because of the generation gaps between the residents, different living periods, and different life patterns between home owners and tenants. So, there is a lack of outdoor space in the low-rise, detached housing block, in spite of its physical benefit such as the open structure to the outer parts of the residential blocks. The social activities in mid-rise, plate-shaped apartment complexes are poorly recorded as well because there are no spaces for pedestrian activities, huge ground space between buildings are used for parking, outworn of residential facilities, and street maintenance conditions are poor. The social activities in high-rise, tower-shaped apartment complexes are poorly recorded as well because the block is closed and is a gated structure. However, it has the possibility to be a good social community place in the middle of a residential block, because the block is located in just the right place with plenty of street facilities, several street events, a pedestrian safety zone, and good street sanitary conditions are provided for the residents.



As a result of the analysis from each survey, the author has concluded several meaningful observations. There are no thoughtful considerations over the people and their lives when planning an urban area of residence. Communicable social place and a livable residential place for the people's activities has remained stagnant in the last 40~50 years of urban development history in Seoul. Therefore, a livable pedestrian activity on the street, social relations and an understanding of one another in residential blocks is a consideration being made only recently.

Residential blocks should be kept as relatively public places for better relationships among residences and the street activities must have a specific place for people to use. Also, the residential block should be cleaned thoroughly with a good street maintenance system and the physical environment must be designed in human scale. To be a successful livable residential block, the residential block should encourage a certain density population and mix use development is necessary rather than single use. Lastly, the residential block should be developed as an open structure to the surroundings for better communication and relations between people on the residential blocks.

Mr Ian Symmons

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cohealth Kangaroos - Building Resilience Through Community

The cohealth Kangaroos is a community health program that builds resilience with some of Melbourne's most marginalised communities. The program is run through cohealth in partnership with the North Melbourne Football Club. cohealth health is one of Australia's largest community health centres and operates from a human rights perspective underpinned by a social model of health.

In practice this perspective ensures that some of our most marginalised communities and citizens have access to services, have opportunities to work together and have a voice in the delivery of their services. The cohealth Kangaroos will be used as a case example of how this work can be achieved.

Parallels will also be drawn with the 100 Resilient Cities Project to highlight the role community health plays in helping cities become more resilient. In 2013 Melbourne was invited to become one of the inaugural 100 Resilient Cities through the Rockefeller Resilient Cities Centennial Cities Challenge. This project identifies four key dimensions underpinning a city's resilience. They include Health and Well Being, Economy and Society, Leadership and Infrastructure, and Strategy and Environment.

The work of the cohealth Kangaroos is a strong example of how community health programs work across the key four key dimensions of underpinning a city's resilience. This paper will explore how the program build resilience for communities and their most marginalised citizens.



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The joint work plan between Canterbury District Health Board and Environment Canterbury Regional Council demonstrates how Public health and planning collaboration informs health strategies and wellbeing outcomes.

Canterbury District Health Board (CDHB) provides primary, secondary, tertiary and public health services for the Canterbury region of New Zealand, population 550,000. The CDHB is promoting a Health in All Policies (HIAP) approach with other government agencies in the region. HIAP focuses on policy areas that lie outside the conventional scope of health services, recognising that public policy profoundly impacts population health. Policy making that does not explicitly consider potential impacts on health and wellbeing may have far-reaching negative consequences for communities.

CDHB approached Environment Canterbury Regional Council (ECan), proposing a joint work plan around common areas of interest, particularly air and water quality. This was agreed by both boards of Governors. The aim of this joint approach was to increase the capacity of both organisations to achieve outcomes which are beneficial to both health and the environment.

One example of this collaboration was the review of the regional Air Plan, looking at the current approach to managing air quality in Canterbury. The CDHB and ECan initiated a joint Health Impact Assessment (HIA) of the Air Plan to assess the potential impact of proposed plan changes on population health, especially the restriction of domestic wood burner use on householder's health.

The HIA revealed that air quality is closely linked with housing, heating, and energy use, and that these factors need to be taken into account in order to mitigate unintended health consequences. The HIA recommendations included the carefully phased introduction of home heating changes along with supporting measures, such as targeted heating and insulation subsidies.

ECan are currently leading the development of the Healthy Homes Implementation Plan to fulfil these aims. Both organisations have noted the value of using a HIAP approach to achieve the mutually beneficial outcomes of clean air and warm homes for the Canterbury community.



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Sustainability & Accessibility: The Next Step

By exploring the city structures in key world cities, the research identifies cities consistent with web like spatial layouts of trunk transport corridors or with the potential to be structured with this form. Initial case studies are drawn from a selection of these cities where suitable data is available. Evidence based sustainability metrics are derived for these case study cities, utilising a methodology first introduced in 2008 and refined for the current research program.

The framework culminates in metric visualisations for each of the three pillars of sustainability. The paper details some of the operational aspects of these metrics in the form of environmental sustainability - accessibility space, putting into practice measures of environmental stewardship, social equity and economic efficiency and the relationship between them.

In particular the paper focuses on how these metrics are able to become operational techniques from current transport and land use planning practice. Traditional transport and land use interaction modelling methods form the foundations of the required metrics methodology, enabling common land use and transport data to be used for building up a database and typologies of sustainability performance. The paper provides an update to the work begun in 2010 and gives the current status of steps to operationalise the concepts for use in decisions on transport and land use planning on a city scale.

The paper concludes with a call for other researchers to participate in developing a typology of sustainability performance using the strategic scan methodology to extend the principles of the methodology into a useful tool for city governments and contribute to assembling a database of city forms & transport structures and their sustainability performance.

Keywords: sustainability; accessibility, city planning; transport; methodology.



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Towards "Garden City" - the community gardens in the inner city areas

This research explores the design of the physical form of community gardens in the Sydney basin. Approaches to the form are typically constrained by location, topography, and community intention. Examining the visual elements and plans of a number of community gardens in the Sydney region, this research aims to understand the connection and interplay between these considerations. The considerations often manifest themselves as a combination of food production, horticulture, and social innovations discussions.

Two research methods, interpretive---historical research and correlational---data analyses, are used to explore how different community gardens' design outcomes occur. Evaluation of Local Government community garden policies and histories in concert with various community gardens provides material for the interpretive---historical research.

To conduct the correlational---data analyses, the author visited fourteen community gardens in Sydney region. He took photos, sketches and carried out a quantitative analysis based on observation of physical forms. The final outcome provides insights into successful productive, social, and aesthetic design approaches to developing community gardens.