Briefing: Secretary
<mark>FOR INFORMATION</mark>

Post travel report: Ed Steane (Wellington, New Zealand)

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Purpose: To report to the Secretary on the attendance of Ed Steane, Director, Urban Policy, Cities and Active Transport (CAT), as presenter at the State of Australasian Cities Conference 2023 (SOACC) on 6 – 8 December 2023 in Wellington, New Zealand.

Analysis: Attending and speaking at the conference provided an opportunity to showcase the leadership of the NSW Government on urban policy, including Transport for NSW's (Transport) high-quality work on Community Improvement Districts (CID). Mr Steane also attended a range of other presentations and spoke to various urban policy experts from New Zealand and Australia on issues relevant to NSW urban policy.

Summary:

1. The SOACC is a biennial event arranged by the not-for-profit Australasian Cities Research Network.

2. The conference is normally held in an Australian city, but this year was held in Wellington, New Zealand (reflecting the Trans-Tasman nature of the Research Network).

3. The conference attracted a range of practitioners (predominantly government representatives and academics) speaking on a variety of issues relating to urban policy in Australia and New Zealand.

4. Mr Steane spoke at SOACC as part of the City Economic workstream. Mr Steane's session was chaired by Professor Katharine Mckinnon from the University of Canberra.

5. Following Mr Steane's presentation, a 25-minute discussion was held on key issues relating to CID policy.

6. Mr Steane also attended various other conference sessions (see **Attachment A** for full book of abstracts presented at conference) and engaged with a range of other stakeholders across various urban issues relevant to Australia, New Zealand and the work of Transport.

Key learnings and outcomes

Presentation and engagement

Mr Steane's presentation provided an overview of the rationale for the NSW Government's investigations into Community Improvement District (CID) policy. The presentation detailed the CID Bill (now publicly released) and explored three policy decisions in more detail: (1)

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Who participates in a CID; (2) What level of support for a CID must be demonstrated for it to be established; (3) How government can be involved in CIDs.

The other speakers in Mr Steane's session were:

- Anna Edwards from the University of Melbourne ('Towards evidence-based policies for the night time economy: understanding nocturnal workforces in Australian Cities'); and

- Reazul Ahsan and Jantanee Dumrak from the University of Utah ('Synergy between urban planning practice and small and medium businesses (SMBs) management curriculum at the university level to mitigate urban climate risks to achieve sustainability for Australian cities').

Following Mr Steane's presentation a 25-minute discussion was held on key issues relating to CID policy. Matters discussed during this session included:

a. The role of residents in CIDs, including their representation on CID Boards and the rationale for the NSW not proposing to extend CID levies to residential property owners;

b. How CIDs policy can ensure that during the process of place improvement, vulnerable community members are protected and engaged (including access to affordable accommodation);

c. The role of CIDs in advancing new place ideas for the community without a formal role in the land use planning process;

d. The potential interest of the aged care sector in CIDs and the capacity for CIDs to be aligned to urban development that provides effective access to community facilities for all community members;

e. Connecting CID policy to other Vibrancy reforms in NSW including, particularly reforms to streamline the delivery of entertainment precincts and night-time entertainment; and

f. The capacity of CID policy to enable small businesses to engage in key urban issues such as first nations reconciliation and safety for women, girls and gender diverse people.

The presentation and related discussion were valuable for ongoing development of CID policy in NSW.

Mr Steane also attended a range of other conference sessions. Key themes emerging included:

a. Role of indigenous peoples (mana whenua) in governing the city – a range of speakers provided case study examples in New Zealand and Australia on issues relating to connecting with Country, engagement with indigenous peoples, and the relationship of urban governance principles to reconciliation policy;

b. Active transport as a key enabler in achieving broader place outcomes – recognising how walking and cycling policy is intertwined with the creation of high

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quality places for all. Exploring the role of place-making in active transport policy and vice-versa;

c. Gender as a lens for designing and understanding the city –emerging research and understanding on how effective urban policy can be co-designed with women, girls and gender diverse people;

d. Changing political priorities and implications for urban policy – noting recent changes in elected representatives in New Zealand; and

e. Urban transitions and effective governance – strategies to ensure all members of the community are involved in decision-making and providing streamlined structures for policy and programs to be advanced.

Benefits to the State

The conference was an opportunity to share information with leading Australian and New Zealand cities practitioners on the NSW government's leadership in CID theory and the development of high-quality urban policy. The conference also provided an opportunity for Mr Steane to gather insights from other attendees and speakers on Australasian best-practice across a range of urban policy areas relevant to the work of the NSW government.

Communication Strategy

Mr Steane has now briefed the CAT Executive team, and the Urban Policy team, on key insights from the conference following his return from New Zealand. Mr Steane has also shared details of the CID discussion with the CID policy team (led by the Urban Policy Branch).

Alignment with *Future Transport 2056*

CID policy is aligned with Future Transport Strategy's state-wide outcome relating to successful places (P2.1d, P2.2c, P2.5c). CID policy aims to support the creation of well-connected communities with quality local environments, and strong local economies.

Mr Steane's attendance at this conference supported the development of NSW CID policy and delivery of the Future Transport Strategy's aspirations in relation to successful places.

Disclosure Summary

Date	Organisation/Individual	Purpose of Meeting
6 Dec 23 – 8 Dec 23	Various conference attendees (including representatives from Otago University, Victoria University of Wellington, Wellington City Council, Monash University, the University of Canberra, the University of Sydney,	Discussions regarding emerging urban policy issues

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	UNSW and the University of Auckland)	

Next steps

Insights from Mr Steane's involvement in the SOACC conference will now be considered in the context future Transport urban policy, including CID policy.

Expense Summary

Breakdown of all costs incurred	Actual Cost
Airfares – GL 534030	$1031.82
Accommodation – GL 534040	$1101.34
Official hospitality – GL 534050	$0
Attendance fees for delegates – GL 534050	$493.50
Ground transport – GL 534050	$126.63
Meals and refreshments – GL 534050	$263.95
Other miscellaneous costs – GL 534050	$12.21
Total	$3029.45

Traveller endorsement   Secretary

Ed Steane Director, Urban Policy Cities and Active Transport	Anna Bradley A/Deputy Secretary Cities and Active Transport	Josh Murray Secretary Noted
Date: 22 December 2023	Date: 8 January 2024	Date: 8 January 2024

Background

Mr Steane's abstract to speak at SOACC was accepted on 19 May 2023. Mr Steane's attendance at the conference was approved by the Secretary, the Minister for Roads and the Minister for Transport prior to travel, consistent with Transport policy.

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Attachments

Attachment	Title
A	Book of Abstracts

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SOAC 2023

State of Australasian Cities conference

Pacific futures: Australasian cities in transition

6-8 December 2023

Wellington Aotearoa New Zealand

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Reckoning with Settler Colonial Cities

The incommensurate and the irreconcilable: A tangata Tiriti urban designers perspective

Hannah Hopewell, Te Kura Waihanga-Wellington School of Architecture

This paper shares a critical and creative narration of current issues and opportunities facing the practice of urban design in Aotearoa-New Zealand. Acknowledging that urban design is characterised by highly differential and unequitable power dynamics that tend to unearth contestation and competing value, the presentation works to create context for dialogue across difference. To that end a plural, open and situated understanding of urban design practice is offered as means to speculate upon spatial justice-to-come.

Alongside local and international decolonial and settler colonial discourse, the presentation uses personal experience, poetics, critique, photography and image as methods of invoking the complexity, courage, care, and specificity that urban design practice in Aotearoa New Zealand demands.

The colonial legacy of cantonments and fragmented cities in Asia: Case of Pune, India

Kiran Shinde, La Trobe University

Amongst the many vestiges of colonial rule, cantonments have emerged as a significant factor defining the trajectory of urbanization in many Asian cities. Spread over hundreds of acres, cantonments were established for military purposes including training and defense establishments. Of the 114 cantonments in south Asia, 66 are in India. The presence of cantonments triggered urban growth in the cities they were part of. Using the case study of Pune (4.5 million population) this paper examines how cantonments continue to influence its urban form. Two cantonments were established in the early 19th century around the periphery of the old city of Pune: the Pune Cantonment in the east covering 4266 acres; and Khadki Cantonment in the north covering 3207 acres. Their formal planning and street networks were a clear departure from the urban fabric of the dense old city. The social make-up was also different: with the officers and serving personnel coming from all over the country, the cantonments were cosmopolitan. These enclaves were separated with clear boundaries and fences but had some porous areas such as the bazaars from where the civilians supplied for the needs of the cantonments. Since the 1980s, with the rapid growth of the population (driven by IT, education, and service industry), the socio-spatial distinctions between the cantonments and their surroundings began to deepen and widen. Socially, the cantonment created almost an army of retirees from the defense forces that settled in housing societies in the fringes of the cantonments. Their next generation also added to the cosmopolitan culture. While this assimilation seems more inclusive, cantonments became more divisive in spatial sense. The massive land holdings locked away in the cantonments acted as barrier and the urbanization process had to leap-frog over into the surrounding rural fringes. The civilian areas that are repositories of colonial heritage including club buildings, markets, and colonies, are prone to dilapidation and hollowing of cantonment areas. Administered by Cantonment Boards, these islands of colonial prosperity now represented restricted opportunities for commercial activities. The defense establishments are under constant threat of encroachment and the pressure of releasing land for housing and other infrastructure is leading to speculative real estate. The socio-spatial fragmentation created by the cantonments represent a doughnut in the urban morphology of Pune. The contemporary urban pattern created by the colonial hangover of cantonments has serious implications for the sustainability of the city in terms of transportation and other services for the rapidly growing population.

Ask how not what: collaborative research practice in and on settler-colonial cities

Libby Porter, RMIT University

Elle Davidson,University of Sydney

Ani Landau-Ward, RMIT University

We are First Nations and settler-coloniser researchers collaborating with Indigenous communities about contemporary practices of Indigenous inclusion and "voice" in urban policy-making. And we are discovering (again) how the systems and structures of research work to make the very practice of research itself amenable to certain kinds of power relations and dynamics here in the colony. Our work is situated in a particular historical moment in Australia, where the question of "Indigenous Voice" is a matter of daily public debate. This complicated power dynamic, where the possessiveness of the settler-colonial order is reworking itself in different shapes, provides a vital context for considering afresh the role of research.

In this paper/yarn we want to examine the different facets of research practice that, like ours, purports to centre Indigenous ways of knowing, being and doing. As we do our research about how the structure of settler-colonialism shape the way urban policy-makers attempt to "engage" with Indigenous custodians, we are constantly aware that the structure of settler-colonialism shapes the very possibilities and practices of our own research. In this yarn, we seek to critically examine the structures and systems of research we ourselves are located within, what these incite in our own practice, and where we are finding tensions and possibilities and navigating these together. Asking "how not what" as Ambelin Kwaymullina suggests in her book "Living on stolen land", we consider the invitation to learn and re-learn anew in allyship with First Nations community partners, the opportunity to practice urban research differently and the forms of activism and accountability this requires.

Inclusive Australasian Cityscapes

Diane Menzies, Rongowhakaata

Lyndon Ormond-Parker, ANU

Dee Isaacs, Te Aupōuri, Tūwharetoa and Whanganui, and DPI Consulting

The lands or Country on which Australasian cities have been built have always been Indigenous places and spaces. Cities have been built by colonial governments largely in places that Indigenous previously were established: they were accessible, fertile, well-watered, with manageable climate and amenable landscapes. Colonial governments rapidly took over and made those places theirs: harbours, buildings, transport. Indigenous were driven out or subsisted at the edges, largely invisible. Indigenous migrants moving back into the cities to find jobs or places to survive, found few brown and black faces but alien cultures. The stories were often of despair and loneliness.

Invading colonists were previously disinterested in providing for Indigenous values in cities, but changes are happening. Social media adoption and the use of online meetings have allowed louder voices, and more frequent and effective dialogue among Indigenous. Innovations are now spreading more quickly as Indigenous groups find commonality in values and contested spaces. Indigenous critical mass in design and decision making has enabled examples of city design such as Te Wananga in Auckland or best practice strategy for heritage protection such as Dharuwan Ngilan.

But have we moved much beyond the issues identified by Kiddle, namely design for equity rather than the colonial majority, recognition of Indigenous diversity, seriously addressing Indigenous poverty, and Indigenous designing places for 'being Indigenous?   What effective strategies are in place for reconciling cityscapes for more inclusive healthy relationships of people and environment?

New innovations are including closer communities, natural blue and green networks for healthy waterways and habitats, and Indigenous visibility in transport networks and access routes. But how could we better include breathing buildings, thriving coastlines and equity? The Dhawuran Ngilan vision provides Aboriginal and Tores Strait Islanders with best practices, and the Natural and Built Environment legal changes may enable steps towards sharing power in designing equitable cityscapes in Aotearoa. But what if open spaces in cities could be land without ownership, managed by kaitiaki, as with Urewera? What if waterways in cities could be assigned

personhood with iwi/hapū to speak for them as with the Whanganui River and tributaries? Could such changes inspire action to revitalise the spiritual connections and relationships Indigenous still hold for cityscapes: lands, waterways and seas? This paper provokes thought for greater effort to improve the lived experience of Indigenous in Australasian cities.

Generation Kāinga: Rangatahi Māori Economic Well-being and Kāinga

Navana Matthews (Tūhoe, Ngāti Kahu), Pūrangakura Māori Research Centre, Aotearoa New Zealand

Jacqueline Paul (Ngā Puhi, Ngāti Tūwharetoa, Ngāti Kahungunu ki Heretaunga), Pūrangakura Māori Research Centre, Aotearoa New Zealand

Māori communities in Aotearoa New Zealand face a housing crisis characterised by a disproportionate overrepresentation in emergency housing, the public housing register waitlist and those experiencing homelessness. This crisis is particularly poignant among rangatahi Māori under 24 years of age, who constitute half of the Māori population. We must recognise that rangatahi Māori play a crucial role in shaping the nation's future. Understanding the intricate nexus between economic well-being and kāinga (housing) solutions is imperative. Their prosperity is integral to their personal growth and the collective strength and resilience of Māori communities.

This paper will present the preliminary findings and insights derived from a thorough review of existing domestic policy and academic literature, shedding light on a notable research gap surrounding the economic well-being of rangatahi Māori and their relationship with kāinga. Our research contributes to the Generation Kāinga research programme, which investigates rangatahi Māori and kāinga in Aotearoa New Zealand and seeks to unlock the capacity of rangatahi Māori to become key agents in promoting and developing whānau housing and kāinga solutions.

Repairing memory and place: the undergrounding of water in Naarm

Ana Lara Heyns[a], Martin Brian[a], Carolyn Briggs [a], Nigel Bertram[c], Laura Harper[c], Catherine Murphy[c], Melo Zurita[d],. Jack Mitchell[c]

[a] *Monash University*

[b] *RMIT*

[c] *Monash University.*

[d] *University of New South Wales*

This research takes place on Boon Wurrung Country, along the coast of Naarm / Port Phillip Bay, a region characterised by swampy lowlands and sandy geology. Before colonisation, this region contained numerous variants of saltwater and freshwater ponds, marshes, and intermittently open and closed lagoons in a complex array of above and below-ground water flows. The Boon Wurrung- original owners of these lands and waters - partnered with Country; to access the water they needed through wells and springs where rivers and swamps were absent or seasonally dry, developing a nuanced understanding of the changing water ecologies that supported food supplies. With the violence of colonisation, much of this watery landscape was gradually filled, piped underground, drained or built over, fundamentally changing the conditions of Naarm's lowlands and causing periodic water-related issues, including flash flooding and the contamination of waterways. This presentation proposes methods to think with /about the violent separation of surface and subsurface in city planning and water management- including yarning and immersive on-Country learning. We foreground the relational aspects of Indigenous ways of knowing, of conversing with Country about what is 'under' to repair memory and place. Water, in this project, is conceptualised as an entity with legacies of past flows that remain in memory, in stories and archives, and that sometimes have left material traces of their journeys, or they re-emerge as flooding surfaces or urban paths, as a reminder of disrupted connections and potential ways of repairing them.

Evaluation: A Locus of Possibility Towards Post-Colonial Placemaking?

Matt Novacevski, The University of Melbourne

Evocative in its promise and premise, placemaking has become increasingly popular globally as city governments and communities seek to instil vibrancy in the public realm and cultivate a more evocative sense of place. Yet the slippery nature of placemaking and its concern with qualitative concepts such as "sense of place" have created an enduring gap around how placemaking interventions are evaluated, and the potential role of evaluation in supporting practice. This gap is of greater significance and complexity in settler-colonial nations, where extractive and exclusionary approaches to urbanism have perpetrated a modus-operandi of disconnection, severing existential bonds between people and place and rupturing long-running Indigenous culture and stewardship. The reverberations today manifest in urban injustice, exacerbated climate and biodiversity emergencies and social isolation, all of which can be linked to the disconnectedness perpetrated by settler-colonial urbanism.

This research explores the potential for placemaking evaluation to support a move beyond the extractive and exclusionary logics of settler-colonialism, by investigating three placemaking interventions conducted on unceded Kulin Nations land in Naarm/Melbourne and Djilang/Geelong in the south-east of the land known as Australia. The research presents an evaluation approach grounded in ways of working, reciprocal engagement and presenting an overarching objective for placemaking practice as "fostering the ability of place to nourish life". The resulting work envisages placemaking evaluation as a window into a post-colonial way of working with place characterised by recognition, connectedness and mutuality, rather than a narrow exercise of bureaucratic accountability. While the work is developed in and with place, the insights may be transferrable to other settler-colonial contexts, providing a foundation for evaluation work that opens placemaking toward post-colonial ways of thinking and working with place.

Ōtautahi Christchurch in Transition: Placemaking in the Post-disaster City

Steve Matthewman, University of Auckland

Luke Goode,University of Auckland

Ōtautahi-Christchurch is a paradigmatic case of a city "living on the edge". Built on a swamp, by a capricious river, on a flood plain positioned at sea level, and on the boundary of two of the planet's great tectonic plates, it was a disaster waiting to happen. Indeed, the city has had to contend with multiple concatenating disasters: tens of thousands of earthquakes, devastating flooding, rural-urban interface wildfires. It is also the site of the country's worst modern terrorist attacks, the shootings at the Al Noor Mosque and the Linwood Islamic Centre which killed 51 people. Ongoing disasters include significant ground and freshwater pollution, and the COVID-19 pandemic.

The Canterbury Earthquake Sequence created the biggest urban renewal project in this country's history. Consequently, our oldest city is also now our newest. Ōtautahi's recovery is typically interpreted as crisis-driven urbanism "heavily market-led, non-democratic and highly unpopular" a textbook case in how not to build back better. Yet while often seen as the "most staid, most conservative, most settled of settlements," (Prentice, 2013) the earthquakes destabilised many of the city's assumed futures. The 2010 earthquake gave the city's poorest suburbs the equivalent of half a century of sea-level rise in a single hit. The future has already arrived here. Physical and political structures became precarious, as did the meaning of Christchurch itself. This produced a generative moment, literally creating spaces for new ways of being. Here the residential red zone, 602 hectares of land along the Avon Ōtākaro River Corridor, serves as a space of hope. Arguably the greatest area of managed retreat in an urban setting anywhere in the world, it is potentially a democratic commons as it cannot now be privately owned. And it is subject to a cross-culturally unique co-governance arrangement between local hapū Ngāi ngāi Tūāhuriri and Council. This builds upon Ngāi Tahu's partnership following the earthquakes, marking the first time globally that an Indigenous group has been an official party to recovery following major disaster. Roundly regarded as one of the most quintessentially English settlements in the colonial project, the city is becoming a post-colonial place.

Cities are the landscapes of the Anthropocene. This century's political ecologies will most sharply manifest in the littoral zone where places like Ōtautahi-Christchurch are located. This

presentation reports on their post-disaster placemaking activities pro and con to see what lessons can be extracted for an urban planet facing unprecedented environmental pressures.

Indigenous placefulness and wellbeing in urban settings

Joni Māramatanga Angeli-Gordon, Te Wānanga o Aotearoa

For Māori, place is imbued with spirituality. Through pepeha (ancestral landmarks) Māori articulate spiritual connections to ancestral homelands. These connections offer a source of important wellbeing for Māori. However, increasingly Māori live away from 'home' and do not have the ability to visit their homelands often or at all. The urban diaspora of Māori offers new ways of connecting to environments through a Māori lens.

In urban environments people have the capacity to experience waterways, skies, mountains, buildings, homes, suburbs, wildlife, and people through a Māori lens and find wellbeing and connection. We can connect with the mauri (vital lifeforce) of the 'place' that we occupy. Through this placefulness, we can foster wellbeing and become present with the earth beneath our feet, the stories that the skies tell, and the mauri in the buildings we occupy. Indigenous placefulness offers a response to disconnection in urban environments for Māori and a paradigm to decolonise urban places to enhance wellbeing for people and the environment.

The colonial legacy of reserves

Robin Quigg, Iwi - Raukawa, Ngāti Tamaterā. Mahi - University of Otago

Ella McDonald , Raukawa, Ngāti Tamaterā. Mahi - University of Otago

Parks and reserves are a colonial construct, reflecting a westernised approach to the health determinism of the nineteenth century to fight disease, be restorative, and build settler character. These parks were fundamental to the layout of early town proposals. Smith's (2012) explanation of the colonial spatial language of lines, the centre, and the outside, illustrated that park and reserve boundaries and regulations reflected the time concepts introduced to Māori, but further excluded them from their land. Current research focusing on the legacy of reserves from an Indigenous perspective will be presented.

Disrupting the Status Quo: Indigenous-Led Housing Initiatives in Canada & Aotearoa

Ashley Wilkinson, University of Northern British Columbia

Jack Barrett,University of Auckland/Waipapa Taumata Rau

Rebecca Schiff, University of Northern British Columbia

Tom Baker, University of Auckland/Waipapa Taumata Rau

Laurence Murphy, University of Auckland/Waipapa Taumata Rau

Indigenous-led housing initiatives are community-led efforts that prioritize Indigenous values, knowledge, and practices to create sustainable and culturally appropriate housing for Indigenous Peoples. These initiatives aim to address the homelessness and housing insecurity that disproportionately affects Indigenous communities in settler cities and urban areas, caused by the ongoing impacts of settler colonialism including displacement, forced removals, and land dispossession. These settler cities and urban areas continue to pose significant challenges to Indigenous peoples' access to safe and affordable housing, but Indigenous-led housing initiatives offer a potential solution to these barriers. Driven by the needs and aspirations of their communities and Whānau, Indigenous-led housing initiatives prioritize Indigenous knowledge and practices, such as traditional land use, ecological sustainability, and community-driven decision-making. Drawing on conversations with a Māori community housing enterprise, and Indigenous housing providers in Canada through the Community Housing Canada partnership, this presentation will demonstrate the ways in which Indigenous-led housing strategies improve housing security and self-determination of Indigenous Peoples, creating opportunities for positive health and wellbeing outcomes. Overall, this presentation aims to broaden understandings of Indigenous housing provision by bringing together empirical learnings from Aotearoa New Zealand and Canada.

The Politics of Inhabitation and Intersectional Struggles

Oluwafemi Olajide, Lincoln University

While international research shows a growing radical intersectional and decolonial literature on housing struggles and politics of inhabitation, the experiences of housing precarity and homelessness and its various intersections are under-researched in New Zealand, particularly from radical intersectional and decolonial perspectives. This paper explores the lived experience of housing precarity and homelessness and the politics of inhabitation of the indigenous population in New Zealand within the context of settler colonialism and capitalist state. The paper argues that the contemporary lived experience of homelessness and housing precarity can only be fully understood by exploring the historical legacies that (re)produce and maintain the conditions. The paper made a link between past and contemporary challenges and struggles for inhabitation, highlighting the historical, cultural and political economic contexts and mechanisms that (re)produce and maintain socio spatial inequality, housing precarity and homelessness among indigenous populations in New Zealand. At the core of the challenges is the historical marginalisation, racial capitalism and dispossession associated with settler colonialism and imperialism, which are being reproduced through neoliberalism, housing financialisation and capitalist-led housing development. One direct consequence is the high cost of housing with often substandard housing quality. The paper highlights that in New Zealand, the lived experiences of housing precarity, homelessness, housing struggles and the politics of inhabitation intersect with socioeconomic class and social demographic identities and differentiations such as class, race, gender, age, disability and sexuality. Also, observed is the interconnection of housing precarity and homelessness with other forms of precarity such as poverty, inequality, marginalisation, ill health and unemployment. In addition to these challenges, Indigenous people often face decontextualised negative stereotypes and neoliberal labeling, rather than contextualisation to the intergenerational and multidimensional trauma of colonisation. The paper concluded with a call for a renewed attention towards understanding housing as an essential racialised institution and its connection to the colonial and imperial legacies of dispossession, marginalisation and racial capitalism. Thus, there is a need for more critical and radical academic work, which draws on decolonial and intersectional approaches. This provides potential interesting entry points for a research agenda, with a great opportunity to contribute New Zealand experience to the ongoing global discourse of housing struggle and politics of inhabitation.

Mā te kotahitanga ka ora ai ngā tāngata: Together the people will be well, key features of a whānau ora-promoting community

Amber Logan, Otago University, Department of Public Health

Philippa Howden-Chapman,Otago University

Hera Cook, Otago University

Lawson-Te Aho, Keri, Otago University

The design of a community's social space is critical to the overall health of the community. There is a strong association between physical space and society's social fabric, an effect amplified at the community level. The whānau ora-promoting community is primarily a physical space that enables the wellness of its inhabitants. Research has shown that the ability of a community to meet the needs of community members is closely associated with community wellness, yet the voices of indigenous peoples have been noticeably absent from these narratives. Society, culture, history, memory, identity, and environment all play substantial parts in the lived experience of home and community, and therefore the needs of its citizens. If we do not, or cannot, apply knowledge of what a health-promoting community is for whānau Māori, we are critically compromised in our ability to promote health for whānau, hapū and iwi. This presentation discusses the findings of a study that, using a mixed-methods approach, including historical and geographical analyses and qualitative interviews, identified the key physical features of a whānau ora-promoting community. Critically, these findings are embedded in te ao Māori- based on a Māori worldview and a Māori understanding of what a health-promoting community is.

The lived experience of refugees in a settler colonial context

Mireille Kayeye, The University of Melbourne

Australia as a settler-colonial country is built on First Nations, Aboriginal and Torres Island lands. The history of dispossession, injustice, and rights violations by settlers towards indigenous communities influences the attitudes and perceptions towards newcomers including refugees and people seeking asylum. Similar to indigenous communities, displaced people who are seeking safety in Australia continue to experience inequalities, rejection and while living in the host country. Australia's immigration regime tends to have punitive and harsh policies towards people who come to seek protection. Asylum seekers occupy an in-between space where they live in a state of limbo while being subjected to a long wait of visa processing, immigration detention centres, visa pushbacks, family separation and the constant fear of visa cancellation.

This presentation explores how people seeking asylum are perceived in a settler colonial society. It explores the values of identity, sense of belonging with an objective to centre the voices of people with lived experienced of forced migration. This session seeks to share findings from women seeking asylum living in two cities in Australia; Melbourne and Sydney. It analyses how people seeking asylum negotiate a space of inclusion and participation to be heard and seen; the tactics of solidarity with first nations to advocate for issues that matter to them while highlighting everyday acts of resistance against racism and discrimination.

This paper investigates the types of violence inflicted on First Nation Peoples and people seeking asylum in a settler colonial state and the ways in which refugees create spaces of resistance. I discuss the literature on challenges, opportunities to empowerment with a focus on strategies to navigate power dynamics. Understanding of empowerment invite us to listen to people with lived experience of asylum from their perspective on how they engage with policies, service providers and the contribution they bring to society. The paper highlights creative ways of resisting, agency, power and understanding of meaningful inclusion. It suggests that it is critical to include first nations and newcomers ways of knowing and lived experiences to settler colonial societies. Every day challenges can lead to alternative forms of agency that allow refugees to resist, survive and thrive (Ghorashi, 2018).

MOKO BOYS, holding spaces in urban settings for intergenerational whānau to intersect and interact in impactful ways

Sally Rye, Te Manawahoukura, Te Wānanga o Aotearoa

Where colonial infrastructure, theoretical paradigms and western values dominate and continue to rule over indigenous lands, airways and water, the health and wellbeing of the People will suffer.

Indigenous writers Sir Mason Durie (2004), Dr Mera Penehira (2011), Milburn (2004) and Vyas (2019) concur that the abrupt and invasive way indigenous People were assimilated into the western World have disrupted the wellbeing of the People. This interruption has caused physical and spiritual disconnection to lands, people, culture, language, and heritage.

The recent disturbances, trauma and damages caused by COVID-19 and Cyclone Gabreille in Ngati Kahungunu have reminded us of how vulnerable we are in crisis situations when we are disconnected.

Moko Boys is a social enterprise of rangatahi research company, Toi Matarua. The initiative was created in response to research around COVID-19 and its negative mental health impacts on rangatahi and kaumātua in urban settings. With rāhui(restrictions), social isolation and marae used as COVID response centres, there were scarce opportunities for intergenerational whānau to come together.

Research found kaumātua felt even more "out of sight, out of mind" during lockdowns and as a result, felt disconnected & isolated. Rangatahi felt deflated and wanted to do something to help but didn't know how.

Through the provision of lawn mowing services, māra kai (building food gardens in land restricted spaces) and digital technology support, this kaupapa(initiative) connects rangatahi and kaumātua in a purposeful and practical way. Training, mentoring, and supervision is by provided by local tradesmen providing the rangatahi with skills for life while exposing them to pathways into trades.

What we have been reminded of through these recent disruptions is that Indigenous systems of intervention are the most responsive and impactful approaches to wellbeing. Holding indigenous spaces and places for generations to intersect and interact is critical. The aroha(love) and hiringa (energy) is a rongoā (medicine) that can be felt and received in multiple ways.

Reckoning with "urbanism": Why Aotearoa needs a Māori cultural landscape lexicon

James Berghan, Te Herenga Waka Victoria University of Wellington

Rau Hoskins,designTRIBE architects and Unitec

Kimiora Raerino, SHORE & Whariki Research Centre, Massey University

This session calls for the fundamental reconfiguration of cultural landscapes, in response to the problematic importation of Western urban design approaches and terminology. The use of imported language, often without consideration for the Indigenous peoples of a place, can perpetuate colonial values and mindsets. Indigenous, and particularly Māori, conceptions of the natural and built environments need to be more than the 'browning up' of Western urban design principles, and more than an afterthought to settler-colonial approaches to urban design.

The arrival of New Urbanism in Aotearoa heralded a new wave of colonialism, and one which largely disregarded Māori interests. Urban design became a site for assimilationist Pākehā practices and policies. Hapū and iwi, by and large, have been and continue to be largely non-participants in 'urban design' conversations and up until now, Māori practitioners have only been chipping away at the edges.

In 2006, the Te Aranga Māori Cultural Landscape Strategy first articulated Māori design interests and aspirations. With Te Aranga as a starting point, we are calling for a cultural landscape lexicon based on mātauranga Māori, to unlock a new conversation which critically involves mana whenua as central to any cultural landscape discussion. Following on from the successful and very intentional reclamation of the reo in kaupapa Māori initiatives in health, education, housing, justice, and social services since the 1980s, we argue that this conversation and reframing of 'urban design' is long overdue.

The session will begin with 3 short presentations, highlighting practical experiences and a fundamental shift in the ways that 'urban design' is taught and practiced, starting with a Māori cultural landscapes lexicon. Following these presentations, there will be an interactive, facilitated kōrero amongst the panelists and the audience. Here, we will explore these issues and the call to contribute to a national discussion on the development of a Māori lexicon for 'urbanism' and 'urban design approaches' that honour and acknowledge the unique cultural and historic perspectives of tangata whenua.

City Nature and Environment

Inequity in nature's contributions to people in Ōtautahi/ Christchurch: a low-density post-earthquake city

Dan Richards[a], Gradon Diprose[b], Maksym Polyakov[c], Angela Brandt[d], Jo Cavanagh[e], Grace Milner[f], John Ramana[g], Robyn Simcock[h]

[a,b,c,d,e,f,g,h] Manaaki Whenua Landcare Research;, Manaaki Whenua Landcare Research Whenua

Nature's contributions to people (NCP) include the regulating, material, and non-material benefits of urban vegetation that improve well-being. It is increasingly important to plan cities that provide multiple types of NCP equitably to all residents of the city. However, due to historical legacies and planning policies, it is common for the most socially and economically vulnerable urban residents to suffer reduced access to the benefits from urban ecosystems. Previous studies of urban NCP have drawn attention to inequity in one or several types of NCP, but few have analysed a broad range. Here we analysed inequity in nine diverse forms of urban NCP across an index of economic and social vulnerability designed specifically to characterise vulnerability to environmental pressures. Furthermore, we used a spatial analysis to map co-variance in vulnerability and a composite indicator of urban NCP, thus highlighting priority regions for future investments in green infrastructure. We applied this approach to the city of Christchurch/ Ōtautahi in Aotearoa/ New Zealand, which provides a valuable case study due to its multicultural population and recent history of widespread damage and regeneration following the 2011 earthquake. Overall, the distribution of urban NCP is inequitable to the disadvantage of more vulnerable residents. Residents of more vulnerable neighbourhoods experienced reduced provision of carbon stock, runoff retention, air quality enhancement, shade, educational green space, public outdoor space accessibility, private green space, and bird biodiversity contributions. Conversely, more vulnerable neighbourhoods had greater provision of erosion mitigation (although negligible in magnitude). The wide range of indicators used and assessed in response to vulnerability, coupled with assessment of the type of vegetation cover (i.e. grass, tall trees) provides greater insights as to how inequities in urban NCP can be addressed in future redevelopment.

Prospect Refuge Hazard Theory as a scaffold for democratising the city/nature experience?

Roy Montgomery, Lincoln University

There seems little disagreement that while cities continue to be the places where most human beings live something urgent needs to done concerning the city/nature relationship. Natural environments continue to be degraded and life in cities for most people is unpleasant to varying degrees. One could argue that the philosophy of urban planning is rooted in the idea that nature and urbanity can and should co-exist in some fundamental ways. The garden city dreams of Ebenezer Howard, the variations on city beautification in the early to mid-twentieth century, the eco-city and green city movements in the post-WWII era in the so-called global north all point to the same assumption: that humans need a constant connection with nature for their own well-being and the future of the planet. Lynch's The Image of the City (1960) and McHarg's Design with Nature (1969) exemplify attempts to codify this connection and environmental psychologists such as Kaplan and Kaplan have made the case for the human/nature link and author Richard Louv recently diagnosed a condition which he terms "nature deficit disorder" to describe life in cities for many human beings. For the wealthy and the educated amongst us there are ways to manage if not eliminate this deficit through wilderness excursions, private cabins in the woods or by the sea or the manicuring or rewilding of our own private gardens. But what if you are poor and don't own property, you have no political voice or power? Can we democratise the urban nature experience and if so, on what basis? This presentation explores the prospect-refuge-hazard theory first set out by geographer Jay Appleton in the 1970s alongside recent thinking about life quality enhancement for urban dwellers as a scaffold for making life in cities more natural and nurturing.

Reweaving nature into our cities

Fiona Gordon, Gordon Consulting

The proportion of the world's population living in urban areas is projected to rise to nearly 70% by 2050. As urbanisation intensifies and the ecological footprint of our cities continues to expand, the future success of nature conservation will depend in large part on the support of urban voters, consumers, donors, and communicators. Taking the view that the value of nature can best be appreciated when it is both experienced and understood, and that people living in cities have diminishing contact with nature, the future of nature conservation faces the conundrum of how to reconnect urbanites with nature in ways that enable them to realise their vested interest in it. Considering that seeking out nature away from the city is not obtainable by all, and how vital access to natural space is for mental well-being, a challenge for city planners and conservationists alike is how to bring nature to the people. A potential approach is to put nature at the heart of urban development and to take a broader view of "nature" so as to encompass historical, spiritual and cultural elements. This paper presents Urban Eels in Palmerston North, a space created for nature within the existing urban fabric, which makes nature more accessible and provides interpretation and education though the expression of the Māori world view. The paper explores the key principles of the planning approach deployed, including the criticality of building an authentic partnership with iwi, the focus on tikanga Māori, collaboration and shared leadership, and discusses key outcomes. Looking at new, innovative, community-empowered planning approaches may assist planners to identify and mobilise support for initiatives that bring nature back to the city, and to deliver associated social, cultural, environmental and economic benefits. Urban Eels drew its inspiration from the International Union for Conservation of Nature (IUCN) Urban Protected Areas and work of the IUCN Urban Specialist Group. "Urban Eels: Our Sustainable City" received the New Zealand Planning Institute Rodney Davis Project Award 2021 and won the Commonwealth Association of Planners Award (CAP) 2021 for Conservation of the Built and Natural Environment and Cultural Heritage, announced at the Malaysia City Expo November 2021.

Knowing, being and planning in cities: representing contemporary environmental values through planning and projects

Judy Bush[a], Ella Anderson[b], Rechelle Brookes[c]

[a,b,c] *University of Melbourne*

Urban planning should have regard for the social and cultural values of both human and non-human actors. It is much more than legislating the built environment. The Victorian Planning Provisions utilise rules and metrics to regulate land use and development through straight-lined and neatly drawn shapes. Yet cities are more than physical environments, urban areas are places of intangible heritage and social values. Whilst the designation of cultural heritage sensitivity attempts to incorporate Aboriginal values, it may also serve to fragment and ranks parcels of land, and therefore fails to offer a holistic understanding of Country. We ask, "how can urban planning address environmental significance, local values of place, and Indigenous connection to Country?".

People's connection with place, including with urban nature and biodiversity, are key contributors to creating a unique city. These factors also underpin liveability, character, and sustainability. Social values are difficult to acknowledge and "measure" within the regulated formats of planning systems. Different voices and knowledge systems may struggle to be heard in formal planning processes. Indeed, as political and social values shift, planning must listen to diverse and everyday knowledge and the more-than-human. Presently, there is little scope to engage with lived experiences, though alternative engagement processes offer pathways for understanding and thus supporting connection to place.

The Yarra River Protection (Wilip-Gin Birrarung Murron) Act 2017 (Vic) seeks to create a new approach that accounts for connection to place. This is the first legislation in Australia to be co-titled in an Indigenous language and also to legally recognise the river as a single living and integrated natural entity. Additionally, the public realm redevelopment of the Greenline along the Yarra-Birrarung offers an opportunity to cultivate connections with nature and bring biodiversity back to the urbanised centre of Melbourne. These initiatives may point to new, more expansive approaches to urban planning.

In this conference presentation, we utilise the Greenline project and other Yarra-Birrarung initiatives to consider the opportunities for urban planning to holistically encompass different ways of knowing, being and planning for nature in cities.

Canopy cover dynamics in New Zealand's cities

Justin Morgenroth, University of Canterbury

Canopy cover and greenspace in cities are associated with a variety of ecosystem services, generally improving the quality of life for residents of urban and rural settlements in New Zealand. But canopy cover and greenspace differ across space and time. These dynamics result in inequity in the distribution of benefits from ecosystem services. This talk will present results of recent canopy cover surveys in Christchurch and Wellington. Canopy cover differs by orders of magnitude across neighbourhoods in both cities and the city-wide canopy cover in Christchurch is decreasing. A discussion will include the challenges to maintaining existing canopy cover, establishing new trees, and effectively setting canopy cover goals.

Life and death of the suburban front yard

Peter Davies, Macquarie University

Chathurika Perera, Macquarie University

Adrienne Keane, Sydney University

The front garden and street verge form part of a contiguous landscape within which planning controls are set to reinforce the established streetscape pattern and allow for landscaping and open space to complement the streetscape. The ownership is shared with local councils managing the footpath and street verge and citizens managing the front yard of their homes. Front setbacks are controlled through state and local government planning provisions. These have multiple objectives that range from setting frontage limits to prevent the forward movement of buildings and infrastructure crowding the streetscape, supporting the neighbourhood aesthetic, enabling front garden landscaping, providing a sound, visual and lighting buffer between the road and neighbours and enabling utilities and essential services that benefit the lot to city scales. Increasingly, front setbacks are promoted through state and local government policies to augment off-street parking that reflects trends in increased car ownership and the contested space on roadways. The front garden and street verge are progressively considered as offering ecosystem services to cities through their capacity to support deep soil zones, infiltration, canopy trees and urban greening. In short, these shared public and private spaces are expected to provide many and often conflicting objectives within a relatively small envelope. This paper provides a temporal assessment of what is actually occurring at the lot level within the front yard setback area. It examines the land use activities in these zones through two development approval pathways, the NSW Government's exempt and complying development environmental planning instrument and the merits-based process via a council's development control policy. In both cases, the front garden is under threat. Hardstand areas are encroaching on previously deep soil landscaped areas, and urban canopy trees are being lost. This incremental shift is reflective of broader trends in urban green cover loss with the incremental gains captured by development outcomes and grey infrastructure. This trend is at odds with broader social and environmental concerns seeking to promote urban greening reflected in state and local government strategic plans. The research suggests the multiple objectives from which front setbacks are founded when operationalised disproportionally favour private property development outcomes at the expense of the socialised natural environment and ecosystem services. We suggest development outcomes in this zone require

tighter and prescriptive controls if this shared streetscape is to offer both private and public benefits and support liveable city outcomes.

Impacts of COVID-19 pandemic on perceived ecosystem services of urban parks: A study of Western Australian Capital city

Mohammad Shahidul Hasan Swapan, Curtin University

Jeremy Maher,Water Corporation

Parks are a critical part of urban environment providing multiple ecosystem services to urban dwellers. The types and quality of ecosystem services provided by urban parks has increasingly been utilised to determine the socio-psychological and health benefits and to understand the human-nature relationships. However, COVID-19 has caused unprecedented shifts in every sector of urban life and has prompted critical questions of contemporary understandings and approaches to planning for resilient urban formations. While ecologically and functionally diverse parks are able to offset the traditional living space lost during the process of urban transformation, the importance and frequency of park visits have further enhanced during the pandemic in recent times with limited mobility in lockdown situation. In this regard, we examined the change of nature and intensity in park visits and perceived ecosystem services before and during the COVID-19 pandemic on more than 1200 parks users in ten local government areas in Perth city. We conducted an online semi-structured questionnaire survey in the study areas. The results show that park visit was increased by 30-40% in most of the areas for daily walking and walking the dog during the pandemic lockdown. The lockdown experience has further informed more recreational activities in future parks proposed by respondents contributing to a resilient urban context. The study also noted significant variations in experience and perceptions of various demographic groups. The findings suggest the authorities in designing urban parks that not only satisfy the quality of life but also contribute to resilient urban communities to deal with uncertainties.

Protecting Ngā Rākau: the urban greening tool

Alex Wierzbicki, WSP in NZ

Courtenay Northcott, WSP in NZ

Background

Increasing development pressure, both in Aotearoa and globally, has led to the removal of many trees from the soils of papatūānuku in favour of carbon-heavy surfaces, leaving our urban centres more vulnerable to climate-related disasters, such as flooding and extreme weather events. The Urban Greening Tool (UGT) responds to this by quantifying the benefits of retaining and enhancing biophilic design elements within projects. This will enable practitioners to push for protection and enhancement of Ngā Rākau, in turn contributing to climate resilience and increasing the liveability of our cities and towns.

How was the UGT created?

International precedents were adapted to Aotearoa's unique cultural, environmental and built form using a multi-disciplinary, case study-based approach that also added a carbon counts component. For example, greening that is native, has a community value (such as rongoa) and is existing were added and assigned a high score. For the carbon counts, more specific, low-scoring hard surface materials were added, and the materiality of each surface cover type was noted in detail to allow the UGT to estimate the embodied and sequestered carbon per square metre for each surface cover type.

How does the evaluation criteria work?

There are two evaluation components of the UGT: The UGT score and the carbon counts. The UGT score is a holistic measure of the overall quality of a development, including water permeability, habitat creation and social value. In contrast, the carbon counts are reductionist and use assumptions regarding the materiality of each surface cover type to provide the embodied carbon at construction and the LCA carbon over a 50-year life cycle.

What are the benefits of the UGT?

The UGT is highly effective at evaluating the overall quality of a project and where its strengths and weaknesses lie. This is because the UGT score prioritises high value decisions, such as retaining existing vegetation and minimising asphalt and concrete, while including nuanced

design features, such as green roofs and walls. Complementing this, the carbon counts provide an objective environmental measure.

In practical application this means the tool allows for complex analysis and comparison of design options through simple evaluation tools, enabling constructive practitioner- client discussions. In the future, this makes the Urban Greening Tool vital for restoring warmth to papatūānuku and invaluable in quantifying the environmental impact and resilience of development projects.

Into the Urban Wild: Spatially mapping human-nature interactions on informal green spaces in Melbourne, Australia

Hugh Stanford, RMIT University

Georgia Garrard, University of Melbourne

Holly Kirk, RMIT University

Hurley, Joe, RMIT University

Urban human populations are becoming increasingly separated from the natural world with disastrous implications for the conservation of biodiversity. Termed the extinction of experiences, the loss of contact between people and nature that occurs in urban environments results in a decreased understanding, appreciation, and ultimately, willingness to act towards conservation. Informal green space (IGS), the overlooked and unplanned green spaces found in cities, provide a potential solution to combat the extinction of experience through providing a space for people to interact with nature in a spontaneous and open-ended way. However, the degree to which this occurs in reality is uncertain. This paper seeks to address this research gap by investigating to what extent people use IGS to interact with wild urban nature. The paper uses a novel method to map urban informal green spaces in Melbourne, Australia, and uses citizen science and open data available through the Atlas of Living Australia to identify instances of interactions between humans, flora and fauna within IGS. The results reveal that IGS do provide a space for human-nature interactions in urban environments, with a range of implications on both human well-being and ecological sustainability. The paper concludes with recommendations for how urban planners and policymakers can better support and enhance the role of IGS in facilitating and encouraging these human-nature interactions in a way that can benefit both human and non-human urban populations.

Where town meets country: Negotiating social licence at Agricultural and Pastoral Shows in Canterbury, New Zealand

Donna Patterson, Lincoln University

Sarah Edwards, Manaaki Whenua-Landcare Research

Suzanne Vallance, Manaaki Whenua-Landcare Research

Agricultural and Pastoral (A&P) shows have a long history as the meeting point for town and country. They are public events that are often held in New Zealand's towns and cities, showcasing animals, food, equipment, skills, and recreation associated with agricultural activities, and providing sideshow entertainment and family fun. They can also be interpreted as places where social licence to farm is negotiated by creating linkages across rural and urban communities. Initially established through England's Royal Society of Agriculture, New Zealand's earliest A&P shows were held in the 1840s; by the 1950s, over 100 A&P shows were occurring annually. The Canterbury A&P show is now New Zealand's oldest A&P association and traditionally the largest show, attracting regular attendance of over 100,000 people over three days, with the final "Show Day" enshrined as a public holiday for the mid/north-Canterbury region. While the institutional structure of these shows still reflects their settler-colonial roots, the physical site of many A&P shows has shifted over time, and the array of activities on offer has also changed. In this paper we will trace the development of five A&P shows across the Canterbury region: Amberley, Ashburton, Banks Peninsula, Canterbury and South Canterbury. We will consider who and what is included in (and excluded from) A&P shows in New Zealand, and changes they have undergone to ensure their ongoing survival. In doing so, we will discuss how A&P shows are responding to community concerns over sustainable farming, animal welfare, and cultural diversity in their own efforts to negotiate a social licence to operate.

Negotiating social licence to farm: What, how and where

Sarah Edwards, Manaaki Whenua-Landcare Research

Suzanne Vallance, Manaaki Whenua-Landcare Research

Peter Edwards, Manaaki Whenua-Landcare Research

Stronge, Dean; Manaaki Whenua-Landcare Research

The idea of a "social licence to operate" has a plethora of meanings, and often suggests an industry's legitimacy, credibility, and transparency, and the public or community's endorsement of the activity. In recent years, this term has been tied to agricultural activities through a "social licence to farm", and can imply a negotiation (and associated division) between rural food producers and urban food consumers. By drawing together the literature on social licence and public participation we add nuance to this understanding of social licence to farm, pointing to debates about: who grants social licence; what types of activities and impacts enhance, maintain, and undermine social licence; the relationship between social licence and formal regulations; and the factors influencing the ebb and flow of negotiations. Questions remain about what aspects of farming are being negotiated; how social licence to farm is negotiated, awarded, withheld or rescinded; and where these negotiations occur. To answer these questions, we develop an indicative inventory of the places and spaces where diverse publics encounter and experience farms, including in urban and peri-urban spaces; programmes and campaigns that, one way or another, shape these publics' opinion of farming; and the types of issues being negotiated. Producers, consumers and publics have a range of options when it comes to negotiating social licence to farm. Developing a good match between the complexity of the issue, the places and spaces where the negotiation takes place, and how to undertake negotiation may be key to more 'productive' and less adversarial outcomes.

Urban citizens and the conception of the good farmer

Peter Edwards[a],Dean Stronge[b],Robyn Kannemeyer[c], Suzanne Vallance[d], Sarah Edwards[e],

Jim Sinner[f], Hugh Campbell[g], Sam Lang[h], Chloe Dear[i], Daniel Eb[j], Richard Kate[k],

Pam Booth[l], Nikki Harcourt[m], Gwen Grelet[n], Nick Kirk[o]

[a,b,c,d,e,l,m,n,o] *Manaaki Whenua Landcare Research*

[g] *University of Otago,*

[h,l] *Quorum Sense*

[j] *Dirt Road Communications*

[k] *Thriving Southland*

[f] *Cawthron*

For some time, there has been a disconnect between urban citizens and consumers and the farmers that produce our food in Aotearoa New Zealand (A-NZ). As the urban footprint of A-NZ expands, the peri-urban areas of cities provide an opportunity for farmers, consumers and citizens to connect, build relationships, trust and eventually negotiate a social licence to farm (SLO). Most people recognise that farming and food production have a variety of impacts, and that the way in which people farm can determine what these impacts are and how severe they may be. What we don't know or understand is what urban citizens and consumers consider to be good farming practices, and whether their expectations around farming are or can be met by farmers.

Within this context, we have surveyed over 1000 urban citizens of A-NZ to understand what they think about farming and what characteristics of farming would make a "good farmer". We have also asked approximately 600 farmers across A-NZ, both in the rural and peri-urban environments what characteristics they believe make a "good farmer". In examining the concordance and/or disconnect between what these two groups expect from a good farmer, we are currently exploring opportunities for closing the gap and allowing the peri-urban area to open up as a fertile ground for building relationships, trust and allowing farmers to gain a social licence to farm.

Investigating the relationship between the loss of social license to farm in peri-urban areas and the development of regulation.

Jared Brenssell, Manaaki Whenua/University of Otago

Sean Connelly,University of Otago

The term "social licence" is often used to describe a type of "informal permit" which communities may issue for a certain activity to take place. There is a multitude of literature which emphasises the need for a social licence to operate (SLO) within primary industries. In Aotearoa New Zealand, issues associated with freshwater pollution have been a focal point for challenges to the social license for agriculture.

In August 2020, the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NES-FW) were released with subpart 3 being related specifically to Intensive Winter Grazing (IWG) activities. This signposted the start of IWG regulation in Aotearoa, an activity which had not previously been regulated, with farming operations now requiring a resource consent. Prior to the implementation of these guidelines, the public perspective on IWG has been heavily critical as expressed in a multitude of media articles. This indicates that the social licence to operate (SLO) to undertake IWG activities may have been compromised. Given the IWG regulations have only recently come into force, the true ramifications of these regulations are largely unknown. However, for now, the majority of agricultural operators have been able to continue IWG in the manner that they always have. This raises the question; how has the SLO changed due to the presence of regulation, when the activity itself has not dramatically changed?

Drawing on a media analysis, interviews and survey responses, this research explores the relationship between the social licence to farm in peri-urban areas and statutory/regulatory change in New Zealand. The IWG regulations under the NES-FW may be aimed at addressing concerns that are critical for maintaining a SLO. However, findings from previous research suggests that SLO cannot be obtained through regulation alone, and therefore the relationships between regulation and SLO should be more carefully considered.

Advancing water sensitive cities through blue-green projects: A study of community design preference in Perth, Western Australia

Mohammad Shahidul Hasan Swapan, Curtin University

Jeremy Maher,Water Corporation

Shania Hunt, Curtin University

Blue-green infrastructure (BGI) projects have gained increasing acceptance by local governments as a means of integrating the water cycle with urban design and development needs. The objective of a Blue-Green City is to replicate a naturally-oriented water cycle while enhancing the city's amenity by combining water management and green infrastructure. To date, around 30 BGI projects have been implemented in the Perth metro areas, with an additional 35 projects currently in progress. As the city becomes more densely populated and land becomes more valuable, the community, academics, and urban designers are seeking appropriate design outcomes by transforming underutilized urban land. Despite the increasing popularity of this initiative, little is known about the community's design preferences for such interventions. Therefore, this study aims to comprehend the current public narratives on blue-green spaces, their contributions to sustainable communities, and people's desires for their local blue-green spaces. To achieve this goal, we conducted a semi-structured questionnaire survey of 285 residents, using photographs of the BGI interventions' before and after stages. The survey examined preferred land use forms, allocation in BGI interventions, and the desired eco-system services expected from future schemes. The results indicated overwhelming support for the transformation of blue-green spaces, as respondents saw it as a financially beneficial investment for the community that also mitigates the heat island effect. Respondents expressed a desire for a greater percentage of nature playgrounds, bushland, and waterwise upgrades in future projects. Participants tended to prioritize regulating services, such as water quality, climate change, and energy saving, over other ecosystem services. This study offers insights into the various opportunities for local governments of different shapes to create a water-sensitive and liveable city. The future challenge for governments is to consider how best to plan at the macro and micro levels for current and future uses of blue-green spaces.

Effectiveness of Strategically Located Green Stormwater Infrastructure Networks for Adaptive Flood Mitigation in a Context of Climate Change?

Suphicha Muangsri, School of landscape architecture, Lincoln University

Wendy McWilliam, School of landscape architecture, Lincoln University

Tim Davies, Faculty of Geological Sciences, University of Canterbury

Lawson, Gillian, School of landscape architecture, Lincoln University

Studies indicate Green Stormwater Infrastructure (GSI) on industrial land can provide substantial adaptive flood mitigation within urban catchments under climate change. To identify a cost-effective adaptive GSI network, planners need to evaluate flood mitigation capabilities of industrial properties through time and understand key characteristics informing when, where, and how GSI should be implemented for maximum effect. We applied the Hydrology-based Land Capa- bility Assessment and Classification (HLCA+C) methodology to a catchment in Christchurch, New Zealand, to evaluate the capabilities of industrial properties clustered into Storm Water Manage- ment (SWM) zones under different climate change scenarios. SWM zone potentials and limitations were assessed to develop the most capable adaptive flood mitigation network with climate change. We prioritised six of twenty SWM zones for inclusion in the network based on their substantial flood mitigation capabilities. To maximise their capabilities through time, we orchestrated, and implemented GSI in zones incrementally, using different implementation approaches based on key characteristics determining their capability. The results indicated that the most capable zone could mitigate climate change-induced flooding, by itself, up to the end of this century under the moderate climate change scenario. However, if its capability was combined with that of five others, together they could mitigate flooding just shy of that associated with the major climate change scenario up to the end of this century. The resulting adaptive industrial GSI network not only provides substantial flood protection for communities but allows costly investments in flood mitigation structures, such as barriers and levees, to be safely delayed until their cost-effectiveness has been confirmed under increased climate certainty.

Architecture as Green Infrastructure: Using building envelopes to enhance habitat connectivity and stormwater management in built environments.

Maggie MacKinnon, Wellington School of Architecture, Victoria University of Wellington

Maibritt Pedersen Zari,School of Future Environments, Auckland University of Technology

Daniel K. Brown, Wellington School of Architecture, Victoria University of Wellington

Cities perpetuate biodiversity loss and climate change through the destruction of ecosystems and the critical services they provide. However, these negative impacts can be mitigated, and potentially reversed, with urban habitat restoration and the large-scale implementation of urban green infrastructures. Building-integrated green infrastructures (such as green walls and green roofs) are not often included in urban green infrastructure planning, despite their potential to increase the amount of vegetation in densifying cities with little available ground-level space. The quality and performance of building-integrated and ground-level green infrastructures are often limited by the lack of consideration given to the synergistic relationships between ecosystem services. A holistic approach to the design of urban green infrastructure networks is needed to integrate both ground-level and building-integrated green infrastructures that optimise the benefits of multiple ecosystem services. This research aims to develop a holistic urban green infrastructure plan that improves habitat connectivity and stormwater management in central Wellington, New Zealand. ArcGIS Pro, with the Nature Braid and Linkage Mapper toolboxes, was used to conduct ecosystem service analyses for flood mitigation and habitat connectivity. These analyses identified priority areas for flood-mitigating features and stepping-stone habitats for native birds. A green roof network was designed for each ecosystem service separately and then combined to identify overlaps in the amount and location of proposed green roofs. The results indicated that the green roof network improved flood mitigation (11% reduction in unmitigated flooding areas) and habitat connectivity (7-12% reduction in dispersal costs for native birds). There was a 58% overlap in the green roofs needed for habitat connectivity and stormwater management, indicating that these green roofs should be the highest priority for implementation. Holistic urban green infrastructure planning approaches, like the one conducted in this research, will be necessary to address the interlinked issues of biodiversity loss and climate change in built environments.

Nature-based Solutions in Urban Flood Mitigation and Adaptation to Climate Change: Evidence from Bangladesh

Md. Esraz-Ul-Zannat, PhD Candidate, Cities Research Institute, Griffith University - Gold Coast Campus, Parklands Drive, QLD 4222, Australia

Aysin Dedekorkut-Howes,Senior Lecturer, Cities Research Institute, Griffith University - Gold Coast Campus, Parklands Drive, QLD 4222, Australia

Edward Morgan, Research Fellow, Policy Innovation Hub, Griffith University - Nathan Campus, Kessels Road, QLD 4111, Australia

Flood is a common phenomenon in Bangladesh, where several good practices for flood risk management especially flood mitigation and adaptation have been reflected. Furthermore, Bangladesh is one of the most vulnerable countries to climate change impacts, increasing the likelihood of flood risk, especially in cities, coastal zones, and low-lying areas. In response, various government institutions are adopting policy measures including development plans and adaptation plans, strategies, and policies to manage floods. So far grey infrastructure is used much more compared to nature-based solutions (NbS). NbS is an umbrella concept including Green Infrastructure (GI), Ecosystem-based adaptation, and other similar concepts. NbS are considered sustainable and cost-effective whereas grey infrastructure has adverse impacts, especially on the environment, economy, and society. Evidence from the literature shows that while Bangladesh started to adopt nature-based solutions for urban flood mitigation and adaptation along with grey infrastructure the rate and extent of their implementation remain low. Thus emerges the pressing need to explore the present situation on how cities are currently planning to tackle the predicted flood risk to facilitate the stakeholders including policymakers and planners in actuating the timely and appropriate policy measures. This study uses a case study approach and applies content analysis to the policy documents of the city of Khulna adopted over the years to evaluate the use of NbS for urban flood risk management. This study also examines the NbS policies in the context of planning and how they are being translated into actions in this coastal city, which is vulnerable to the impacts of climate change. The findings of the study can be useful in encouraging city managers and planners to adopt the best practice urban flood mitigation and adaptation approaches and help researchers to deal with the gaps relating to flood risk management strategies.

How has the conceptualization of green infrastructure Evolved, and what are the implications for its implementation in urban areas?

Frances Ifeoma Ukonze, University of Otago, Dunedin

James Berghan, University of Otago, Dunedin

Ben Daniel, University of Otago, Dunedin

The conceptualization of green infrastructure (GI) has evolved from a focus on individual green spaces to a more systemic approach that considers the interconnectedness of these spaces. This growth has even progressed to involving both natural and semi-natural /engineered infrastructure that provides ecosystem services. This progression in perspective has led to increased recognition of the importance of integrating GI into urban planning and development. This article explores the evolution of GI, highlighting the factors that have contributed to its changing conceptualization. These factors range from changes in societal values to scientific advancements in our understanding of ecological processes and policy frameworks. This paper will go further to examine the implications of this evolution for the implementation of GI in urban areas. A critical literature review of articles from two selected databases covering the period of 2012 - 2023 will form the methodology for this research. The primary purpose of this review was to understand the current conceptions and discourses of GI over time. This research is vital because integrating GI into urban planning and development requires a collaborative and integrated approach involving multiple stakeholders, including government agencies, private sector actors and community groups. However, challenges to implementing GI, among others in urban areas, include disagreement with the conceptualization of GI and arriving at a defined meaning of what GI should entail by all professions. By recognizing the evolving conceptualizing of GI and adopting a collaborative approach to its implementation, urban areas can unlock the potential benefits of GI for both people and the environment. Therefore, this research has implications for policy development to guide the effective implementation of GI in urban areas

How can Social Resilience best be Enhanced Through the use of Urban Blue-Green Infrastructure?

Tyler McNabb, University of Canterbury

Frances Charters,University of Canterbury

Rita Dionisio, University of Waikato

Challies, Ed, University of Canterbury

The impacts of climate change and COVID-19 have necessitated the consideration of social resilience and community wellbeing within methods of urban design and hazard mitigation. Urban blue-green infrastructure (BGI) has been identified as a nature-based method to mitigate the impacts of these hazards through the provision of bio-physical and socio-cultural co-benefits. BGI has been defined as the infrastructure of natural, semi-natural, and artificial spaces that mimic natural processes to enhance socio-ecological resilience to confer a range of associated co-benefits. These benefits range from the more bio-physical, including; reduced urban flood risks and temperatures, improved water quality, and biodiversity growth, to socio-cultural, including; improved mental and physical wellbeing, the facilitation of social cohesion and a sense of place, and enhanced cultural connections and values. This research seeks to understand (1) the ways in which urban BGI may provide these benefits to the surrounding communities in practice, (2) the potential synergies and trade-offs between these benefits, (3) what social and design aspects may influence the efficacy of BGI projects, and (4) how the incorporation of community and indigenous knowledge may offer a more nuanced understanding and application of urban BGI. This is important as benefits are often studied in isolation which may undervalue urban BGI, while there is a current lack of understanding of the ways in which co-benefits may best be enacted in practice, thus potentially limiting the frequency and efficacy of implementation. The research first undertook a narrative literature review to highlight the potential of, and need for, a holistic, systems-based approach to the design and implementation of urban BGI to maximise positive community outcomes. Ōtautahi-Christchurch BGI case studies were then undertaken to understand the provision and possible synergies and trade-offs between bio-physical and socio-cultural co-benefits. These case studies included the use of surveys, focus groups, and interviews with communities, iwi, and practitioners to understand not only what benefits are provided, but what social and design aspects may influence this. Survey results to date have confirmed the provision of a wide range of socio-cultural co-benefits, alongside a broad and often contrasting array of site uses. Overall,

this research highlights the importance of nature in cities to enhance social resilience and community wellbeing in the face of a variety of interconnected hazards and identifies multi-functional urban BGI features as a potential method to achieve this.

Towards a new framework for mainstreaming nature-based solutions in cities

Clare Adams, Centre for Urban Transitions, Swinburne University of Technology, Melbourne, Australia

Magnus Moglia,Centre for Urban Transitions, Swinburne University of Technology, Melbourne, Australia

Niki Frantzeskaki, Human Geography and Spatial Planning, Faculty of Geosciences, Utrecht University, the Netherlands

Urbanisation is a major driver of climate change and biodiversity loss worldwide, resulting in cities becoming increasingly important places to implement adaptive and transformative solutions. City-level governments are responding to these challenges by adopting and implementing a mix of policies to improve resilience and liveability that address issues including heat mitigation, water security, and climate risks. These responses require not only a shift in knowledge and understanding of the essential benefits of urban nature, but also understanding how to re-configure governance to achieve the benefits of nature-based climate adaptation in cities.

We refer to mainstreaming agendas, as the process of embedding novel sustainability solutions into governance and practice. Comprehensive frameworks for achieving mainstreaming are needed, as a key enabler of sustainability outcomes. Therefore, in this paper, to better understand the governance of nature-based solutions in cities, we define an entirely novel and comprehensive mainstreaming framework from the perspective of the operationalisation of governance mechanisms, their interactions with the roles actors undertake and the institutional spaces they create and re-shape to address urban climate and ecological challenges over time. We show how our mainstreaming framework can be applied through a case study of urban forestry governance across metropolitan Melbourne, Australia.

We find that the interaction and inter-relation of governance mechanisms, actors' roles, and institutional spaces can, at least in some circumstances, produce ongoing conditions that facilitate, create, and embed the functions, capabilities, capacities, and longevity of mainstreaming agendas and actions. In this paper, we specifically examine these relationships from the perspective of our identified governance mechanisms. Therefore, our new mainstreaming framework emphasises the need for integrative planning approaches and the encouragement and support of experimentation. Furthermore, that planning powers and responsibilities are (in)formally re-scaled to produce new governance platforms that transcend

administrative fragmentation, and that networks are facilitative and active in order to diffuse policies, practices, and knowledges. Finally, as mainstreaming is conceptualised as an ongoing process, that there is a commitment to continuous social and policy learning processes to improve outcomes. These findings are important for understanding the actions required to transform the governance of urban nature-based solutions, to reframe the social processes so that they can enable positive governance dynamics to create and pursue mainstreaming agendas.

Blue & Green resilience in Aotearoa Cities: the case of St Albans stream in Abberley Park, Christchurch Ōtautahi

Maria Rita De Jesus Dionisio, University of Waikato

Mirjam Schindler,Victoria University of Wellington

Edward Challies, University of Canterbury

Yates, Amanda, AUT

St Albans stream traverses Abberley Park, a Christchurch heritage park, playing a vital role in local urban ecological networks. However, the stream shows declining water quality since the 2011-12 Canterbury Earthquakes. The social networks "caring for" the stream are complex, including residents, volunteers, associations and boards, council and its various teams and subcontractors. The ecological and social diversity, history, and inclusive designs seen at Abberley Park provide the basis for its conviviality, rich in multicultural, intergenerational and multi-species interactions. Abberley Park is the home of multiple species including native birds and insects, and connects to various public spaces and ecological corridors, through local water ways. Such connections, however, remain largely unknown to residents and invisible to visitors, running underground. The community is vested in finding best practices for collaborative approaches to enhance blue and green resilience in the park, and the visibility of natural features in the urban fabric. With a community partnership approach, this research seeks to incorporate local knowledge and community views in the research aims and methodological design. The research investigates collaborative networks in place, interfacing management and volunteering, recreational and social activities in Abberley Park, relating to St Albans stream. The main question is how can collaborative networks be strengthened for resilience outcomes with/in the local community, and with/for More-than-human communities in Abberley? This study contributes with key recommendations to advance collaborative planning focused blue and green, urban resilience, supporting More-than-human life in the city.

Green space's role in the resilience and sustainability of Aotearoa's cities

Paul Blaschke, Blaschke and Rutherford Environmental Consultants and NZ Centre for Sustainable Cities

Maibritt Pedersen Zari,Huri Te Ao Hoahoanga School of Future Environments, Te Wānanga Aronui O Tāmaki Makaurau Auckland University of Technology

Ralph Chapman, NZ Centre for Sustainable Cities and Te Herenga Waka Victoria University of Wellington

Green space (GS) is needed in urban areas to provide resilience to climate and other shocks (e.g. Covid), and health and human wellbeing benefits. Urban GS is increasingly seen as green infrastructure, highly complementary to hard urban infrastructure such as water and transport networks. But GS also needs to help the city become more sustainable, not only by mitigating greenhouse gas emissions. Resilience, sustainability and equitable future wellbeing require that GS supply features prominently in the planning, design and upgrading of our cities, especially in parts of cities where it has been underprovided.

An overview of GS analysis in larger Aotearoa cities (in particular for Auckland, Hamilton, Wellington, Christchurch, and Dunedin) shows significant differences in GS availability, accessibility and quality within and between cities. Some of these differences stem from these cities' ad hoc patterns of colonial development, and topography. They contribute to apparently growing inequalities in GS availability and accessibility. But GS quality and accessibility are as important as quantity, in order to deliver most cultural ecosystem services, especially wellbeing, and connections to place and to nature. We suggest that broader health and wellbeing considerations, encompassing indigenous and community values, should be at the heart of design and decision making.

What of sustainability? Most of Aotearoa's cities are trying to intensify and decarbonise to accommodate a growing population without costly sprawl. But to date, sprawl continues, possibly linked to a consumer preference for greenery in the housing market. We argue that the emphasis should frequently be on designing and providing high quality, well-integrated GS, within and servicing areas of dense housing, which are typically areas of cities where there is already a demonstrable GS deficiency. There is also a pivotal role for GS corridors in strengthening linkages between different parts of a city.

We explore some of the implications of these conclusions for urban development at a moment when the resilience, wellbeing and sustainability of Australasian cities is being challenged.

Urban wastelands: Reimagining multispecies just futures

Melissa Pineda-Pintoa, Trinity College Dublin, Ireland

Mairéad O'Donnell,Trininty College Dublin

Marcus Collier, Trininty College Dublin

Urban regions encompass a complexity of entangled dynamics of people, nature and place that are driven by socio-economic forces. In some cases, these dynamics result in prosperity and benefit a great number of city inhabitants, but in many other cases, it leaves behind unequal geographies, with displaced and marginalised communities exposed to depleted landscapes, lack of infrastructure and opportunities. These depleted landscapes sometimes are the result of post-industrial activities, or other forms of abandonment, shaped by colonial forces. They tend to be viewed as depleted because they might have traces of contamination and pollution, they serve no value or purpose for the neo-liberal market forces that continue to dominate city planning, or they are simply 'forgotten', cast aside until they can serve a better purpose. Nevertheless, these spaces in fact hold deep social-ecological values, not only from their historical, colonial legacies – a reflection of displacement and violence – but also because they have now resurfaced, re-emerged with new life. In this paper, we present preliminary findings from workshops carried out in Dublin, Ireland, NYC, USA, Penang, Malaysia and Melbourne, Australia. In these workshops we explore how these new ecologies and the people entangled with them, can help us revalue this emerging nature. We explore ways in which we can reorganise or rethink the way we relate to 'abandoned', post-industrial, wild sites in our urban regions. Through this work we envision different futures for these sites in which injustices are repaired through relational processes to achieve climate and multispecies justice.

Building for Biodiversity: Integrating Performance Monitoring and Adaptive Management into Regenerative Urban Development Strategies

Kamiya Varshney, Wellington School of Architecture, Victoria University of Wellington

Maibritt Pedersen Zari,School of Future Environments, Auckland University of Technology

The degradation of natural habitats and ecosystems in urban areas has led to significant biodiversity loss, as well as increased vulnerability to the impacts of climate change. Integrating vegetation in built environments, such as green roofs and green walls, creating habitats and ecological corridors for connectivity and reducing fragmentation, could help address these challenges and foster regenerative urban development. However, to ensure the success of these architectural interventions (green roofs/walls), it is crucial to include performance monitoring and adaptive management in the design process. By setting clear performance goals and metrics, built environment professionals could measure the success of their strategies in ameliorating biodiversity health through habitat provisioning. This includes assessing the quality and quantity of habitat created, tracking biodiversity indicators, and monitoring the environmental and social benefits of the biodiverse built environment. Through performance monitoring, built environment professionals could identify areas for improvement and make informed decisions about future design strategies.

Adaptive management is a systematic approach to recognising that maintenance and management interventions may have unintended consequences and ensuring that the built environment is able to adapt to the impacts of climate change. As such, it emphasises the need for flexibility and openness to new ideas and approaches, recognising that natural systems are dynamic and often unpredictable. The key steps in adaptive management are: defining management goals and objectives, developing a plan that identifies potential management actions and monitoring protocols, implementing the plan and gathering data through monitoring performance indicators, adjusting management strategies based on performance indicators, and continually learning from the results for future projects.

Effective performance monitoring and adaptive management require stakeholder engagement and collaboration, training and educating stakeholders (including designers, developers, policymakers, community members, and other experts) on the importance of biodiversity health and habitat restoration, and involving them in the maintenance and management process. By involving these stakeholders in the design process and incorporating their feedback into ongoing monitoring and evaluation efforts, built environment professionals could ensure

that their efforts are aligned with the needs and priorities of the community. Moreover, community involvement could also help build a sense of ownership and pride in regenerative urban development. In conclusion, incorporating performance monitoring and adaptive management into urban design strategies could ensure that design strategies are effective, efficient, and sustainable over the long term.

A novel framework to combine/mainstream Biodiversity Sensitive Urban Design (BSUD) and Water Sensitive Urban Design (WSUD) in urban developments.

Fiona Hoegh-Guldberg, ICON Science, RMIT University, Melbourne, AUS

Sarah Bekessy,ICON Science, RMIT University, Melbourne, Australia

Matthew Selinske, ICON Science, RMIT University, Melbourne, Australia

Tim Fletcher, University of Melbourne (WERG)

Yung en Chee, University of Melbourne (WERG)

Holly Kirk, RMIT University, Melbourne, Australia

Casey Visintin, RMIT University, Melbourne, Australia

Georgia Garrard, University of Melbourne

The global rise of nature-based solutions to address conflicts between development, biodiversity and human wellbeing reflects limitations in the status-quo of current development norms to protect biodiversity and human wellbeing. Urban sprawl and road-centred planning are prominent examples of technocratic solutions that remain obstacles to more synergistic uses of space; especially as climate change pressures on ecosystems and communities increase. Here, we propose an alternative approach within urban planning that focuses on the integration of development with water and biodiversity networks from an early stage. Water and biodiversity are critical components within nature-based solutions. However, the interdisciplinary exchange of knowledge or coordination of planning between Water Sensitive Urban Design (WSUD), biodiversity and climate objectives is currently limited. We apply a novel framework that integrates the principles of WSUD with Biodiversity Sensitive Urban Design (BSUD) based on literature analysis, and workshop outputs from a panel of experts in water, biodiversity, architecture, and urban planning fields. This framework includes rules of thumb to account for development with synergies between the ecological and hydrological factors of connectivity, resources, threats, and human/nature interactions. The framework is applied to a case study site in Melbourne, Australia to showcase: 1) ways to test synergies; and 2) methods to measure and monitor outcomes for accountable water and biodiversity net-gains. The results of the case study illustrate the importance of incorporating historical biodiversity and hydrological dynamics within predevelopment and early-stage planning, and in addressing the appropriate audience for each planning stage.

Residential Biodiversity in the Densifying City

Claire Freeman, Victoria University Wellington, Te Heranga Waka

Yolanda van Heezik,University of Otago

New Zealand in common with many cities internationally is experiencing major housing pressures, in particular pressure to provide accessible affordable housing in the city. One approach supported by the New Zealand government is to promote medium and higher density housing in cities. This paper is part of a major five-year MBIE funded project; People Cities and Nature: Restoring indigenous nature in urban environments. Our paper focuses on residential developments, which have huge potential to contribute to urban biodiversity through improved and innovative design. Current residential design and planning fails to recognise the vital role biodiversity plays in supporting ecosystem services and human wellbeing. In our paper we explain how we are devising means and goals for optimal biodiversity to be applied to urban residential greenspace, architecture and built infrastructure. The aims of the research that are profiled in this paper are as follows:

- Through -led case study analyses, we define new urban biodiversity goals in residential settings, identifying design, behaviour, and policy-related strategies to improve practice, and to incentivise and motivate behavioural change by professionals and residents.
- We are analysing optimal biodiversity measures and processes to be applied to residential urban greenspace, architecture and the built infrastructure. These are based on interviews and online surveys with residents and housing development-related professionals. We explore motivations, constraints and barriers to the adoption of practices that enhance native biodiversity.
- We are developing a biodiversity assessment and enhancement tool that is reliably indicative of residential biodiversity and can be used to quickly rate current and potential biodiversity enhancement value of residential green spaces,

In our presentation we present early findings from analysis of a range of medium density developments in New Zealand cities that indicate current practice in relation to domestic greenspace, that range from abysmal to reasonable. None so far are good. We ask why is it that New Zealand seems currently unable to create better more biodiverse medium density housing and present alternative better residential spatial designs that could be used.

Plants of Place: (Re)Planting our natural heritage in urban Aotearoa New Zealand

Rodgers Maria, Te Herenga Waka Victoria University of Wellington

Climate change has led to urgent calls for environmental action and justice which is likely to include increased urban vegetation. The benefits of this planting could go beyond ecological and climate benefits, to contribute to decolonisation, and environmental and spatial justice, and build on the well documented links between ecological and human wellbeing.

In Aotearoa New Zealand, past and ongoing injustices have disconnected Māori, the Indigenous people, from their land. Māori see themselves reflected in the landscape and te taiao, the natural world. The process of colonisation has mostly erased natural heritage, intrinsic to Māori identity, from urban areas where a high proportion of Māori live. Many plants growing in urban areas represent the colonial situation and colonial identity rather than natural heritage. Many native plants that have been planted are from other parts of Aotearoa and were not naturally occurring in the area in the past.

A review of the literature has established reasons for further research to determine the benefits of urban planting design prioritising plants that naturally occurred in the past, termed here 'plants of place'. Interviews with Te Ātiawa iwi will seek to determine the benefits of these plants being planted in urban public spaces, as well as their values and wishes. Te Ātiawa o Taranaki Whānui ki te Upoko o te Ika is mana whenua of the focus area, the CBD and Te Aro areas of Te Whanganui-a-Tara Wellington. Preliminary findings will be presented.

In settler colonial countries, where it is a well-accepted practice to acknowledge built and predominantly colonial heritage, making pre-colonial natural heritage visible can have many benefits. It has the potential to contribute to climate change mitigation and adaptation, decolonisation efforts, spatial justice, and environmental justice. Celebrating natural heritage and planting 'plants of place' can contribute in some part to righting past injustices and preparing for a changing future.

Consideration of managed retreat in adapting to coastal hazards

Aysin Dedekorkut-Howes, Griffith University

Managed retreat is one of the three main strategies used to adapt to coastal hazards and involves abandonment of land and structures in vulnerable areas and resettlement of inhabitants. Planning research so far largely focused on protection and accommodation strategies. Managed retreat is politically the most controversial and least publicly acceptable adaptation option and community resistance poses a significant barrier. Retreat has been viewed as a 'dirty word' or a 'last resort' in planning and due to the negative connotations of the term, it has occasionally been reframed. Research on managed retreat case studies mostly focus on reactive post-disaster resettlement rather than proactive cases. Globally, proactive managed retreat initiatives have so far been limited to very small-scale settlements or infrastructure due to the political, legal, financial, social, technical, and regulatory complexities.

In Australia coastal policies in most states focus more on protection and accommodating coastal climate change impacts. In 2016, the most vulnerable Australian state to coastal climate change impacts, Queensland, launched the QCoast2100 program which funds coastal local governments to prepare Coastal Hazard Adaptation Strategies (CHAS). This paper examines QCoast2100 to understand how CHAS documents consider retreat and how local governments navigate the complexities of this controversial adaptation option. The study includes content analysis of 21 CHAS documents and 47 in-depth semi-structured interviews with stakeholders in CHAS preparation and implementation.

Findings indicate that the term retreat is viewed to be controversial and in general avoided where possible. Some interviewees pointed to the "combative" and "military" nature of the traditional "Protect, Accommodate, Retreat" language and argued that this approach is not helpful in climate adaptation discussions. Transitioning and repurposing are popular substitutes used. This change originates from elected local government officials avoiding controversy, local government staff or consultants who managed the public engagement process. In general, the CHAS documents do not view retreat as an urgent issue, but as something that needs to be considered in a couple of decades time. Local governments are unwilling to commit to options they cannot fund and that may prove unpopular in their electorates. In this regard, adaptation pathways approach provides local governments a way to consider retreat broadly and generally without making any firm commitments. The couple of decades ahead is expected to get the

local area residents used to the idea of transitioning. However, current plans and discussions do not provide a roadmap of how retreat can happen and be financed.

Managing Residual Flood Risk in New Zealand?

Fu Xinyu, University of Waikato

Rob Bell, University of Waikato

Iain White, University of Waikato

Silvia Serrao-Neumann, University of Waikato

Flooding is one of the most frequent and costliest natural hazards around the world. Traditionally, flood risk management has relied on building protective structures such as levees and dams to protect assets based on historical data (e.g., 1% AEP flood), which encourages development on floodplains, provides a potentially false sense of security to communities, particularly in the context of climate change, and increases residual flood risk (the risk remaining after implementing risk reduction measures).

This paper aims to contribute to the management of residual risk by drawing on empirical findings from a survey carried out with flood risk practitioners from the public and private sector in Aotearoa New Zealand. Findings indicate fundamental concerns relating to how to best manage residual flood risk, despite its long profile and integration in current policy and practice. Other issues revolve around the use of outdated information to guide decisions and the lack of regulatory power to restrict developments in flood-prone areas protected by hard defense structures. Identified barriers to improving current practice include the lack of national guidance and support, financial resources, public awareness, and some technical constraints such as uncertainties in flood modeling, staff expertise, and data availability.

Drivers, barriers, and enablers to urban greening for heatwave adaptation: Insights from a regional Australian city

Jason Byrne, University of Tasmania

Roxane Bandini-Maeder,Geoneon

Heatwaves are the leading killer of Australians, killing more people than all other natural hazards combined. Until recently, temperate cities were considered relatively insulated from extreme heat events. But extreme weather events over the past few years have shown that some temperate cities are increasingly vulnerable. This research examined the vulnerability of Launceston, Tasmania to extreme heat by mapping land surface temperatures, tree canopy cover and socio-demographic risk factors. Next a series of workshops were undertaken with key stakeholder groups, including older people, people living in lower-income communities, and culturally and linguistically diverse people. The workshops assessed people"s awareness of heatwave risk, preferences for trees and urban greening, and experiences in coping with extreme heat. Findings show that a cross-section of residents in Launceston are generally favourable towards urban greening, but their past experiences with trees and gardening knowledge suggests local government needs to co-design interventions with residents if urban greening is to be successful. The City of Launceston has recently adopted recommendations into their new urban greening strategy.

Delivering the co-benefits of managed retreat: insights from the Ōtautahi Christchurch residential red zone.

Eric Pawson, University of Canterbury

The issue of managed retreat is attracting growing attention both globally and in Aotearoa (Peart et al 2023). The focus however, as in much of the debate about climate change, tends to be on obligation rather than opportunity (Carr 2023), or the problematic nature of retreat per se, rather than the longer-term co-benefits for urban living that could be delivered. This presentation draws on involvement in a recently published analysis of recovery in post-earthquake Ōtautahi Christchurch (Cloke et al 2023), and ten years experience of working, in semi-official and community capacities, in the residential red zone in the city. This area of 600 hectares extends for 11 km along the Ōtākaro Avon river corridor. It sunk by up to 1.5 metres during the Canterbury earthquake sequence from 2010 to 2013 and is the largest area of urban managed retreat in Aotearoa, and possibly the world.

Three themes are highlighted. First, the importance of developing collaborative governance structures that are capable of delivering long-term benefits (Pawson 2022). Second, the opportunities for experimentation in new forms environmental, economic and social resilience (Pawson et al 2023). Third, the spaces opened for the restoration of biodiversity, ecological connectivity and ecosystem services (Cloke et al 2023). The analysis emphasises the realisation of environmental, social and cultural benefits not only for the red zone corridor, but as a means of building urban resilience into the fabric of the city more widely.

Climate change is complex: the importance of human factors and sociotechnical systems thinking to explore the risk of natural hazards in our urban environments

Nicholas Stevens, Bioclimatic and Sociotechnical Cities (BASC) Lab, University of the Sunshine Coast

Silvia Tavares,Bioclimatic and Sociotechnical Cities (BASC) Lab, University of the Sunshine Coast

Our cities and towns face a range of increasingly frequent and severe natural disasters as the climate changes. Floods, fires, droughts, storms, cyclones, and heatwaves are but a few of the hazards. It is unfortunate then, that our urban environments and infrastructures are not designed with the necessary adaptive capacity to withstand the anticipated impacts.

We need new ways to understand and manage the complexity of the range of risks presented from natural hazards. Indeed, the cumulative and compounding risks of natural hazards, a drought, a heatwave, then fire; a cyclone, then heatwave, followed by disease. The continued compartmentalisation, politicisation, and linear thinking of our urban decision-makers to the risks of natural hazards will kill thousands and cost billions, the time to act is well overdue.

This paper and presentation outline the approaches and projects being undertaken to deal with this complexity which utilise human factors and ergonomics (HFE) and sociotechnical systems (STS) thinking. HFE and STS approaches are conventionally used in the design and management of all types of complex health and safety critical systems - road transport, aviation, defence, healthcare - and are now emerging urban development. HFE is the discipline dedicated to understanding the interactions and interface of humans with their environments. It explores the optimisation of human behaviour, well-being, and system performance with a risk management lens. There are significant parallels between the HFE and urban development disciplines - neither resides exclusively in engineering, nor is it pure social science. Further, the values of STS are valuable to urban systems thinking technology as a tool assist, humans as assets in the system, promotion of quality of life, and responsibility to all stakeholders. A key strength of the outcomes of HFE and STS is that they embrace complexity and consider ways of including multiple perspectives and the input from all disciplines and decision-makers.

Through a range of funded research projects, exploratory studies, and PhD research programs, HFE and STS approaches have been offering new insights for managing risk, and for the planning and design of more resilient urban systems. This paper and presentation will outline these approaches and detail natural hazards case study projects emerging from the Centre for Human

Factors and Sociotechnical Systems, and the Bioclimatic and Sociotechnical Cities (BASC) Lab, at the University of the Sunshine Coast, Queensland, Australia.

City Movement and Infrastructure

Better public transport in Australasian cities: Can a longitudinal accessibility analysis reveal the policy settings for success?

Jan Scheurer, RMIT University

Improving the public transport networks of Australasian cities is a critical component of addressing the climate crisis, and to maintain and enhance their liveability in a carbon-constrained future. During the 2020s, five of the six largest cities in the region expect to open transformative expansions to their rail systems. However, local and international experience suggests that in order to move towards a public transport system with a central presence in the daily lives of an ever-growing share of urban citizens, infrastructure development is only one of several critical policy components. Of similar importance are service planning, network design and integration, and a land use policy that supports public transport use without leading to excessive congestion effects.

This paper will use longitudinal accessibility measures from the Spatial Network Analysis for Multimodal Urban Transport Systems (SNAMUTS) tool for a comparative investigation of all four policy components in Australasia's six largest cities during the 2011-2021 period. It will be shown that specific policy priorities, as well as decision-makers' disposition as such to address all critical factors in the transport-land use interplay, are characterised by significant variation across this sample. The same holds true for measurable outcomes in spatial accessibility: SNAMUTS data suggests that during the 2010s, the greatest progress in creating a better public transport system and a more public transport-oriented urban experience was made in Sydney and Auckland. We will discuss the success factors behind this performance and draw some conclusions about whether other Australasian cities can, or should, learn from the associated policy settings in transport and land use planning.

Coping with the Disruption of Community Mobility during Floods: A Fuzzy Cognitive Mapping Approach

Shashini Ranabahu, School of People, Environment and Planning, Massey University

John Lowry, School of People, Environment and Planning, Massey University

Imran Muhammad, School of People, Environment and Planning, Massey University

Climate change has triggered the frequency and intensity of floods worldwide, accompanying devastating impacts. Coping with these floods is challenging for all the communities, while some communities would find it more difficult than other groups. Different levels of capacities of communities result in varying levels of resistance to flood impacts. Recently there has been growing attention towards studies on community coping capacities and resilience building, given that enhancing the coping capacity of local communities can play a significant role in dealing with disasters. This paper explores community-level knowledge to identify how a flood disrupts mobilities and how local communities cope with the disruptions by taking Kaduwela urban area of the Western Province of Sri Lanka as a case study. This study uses Fuzzy Cognitive Mapping (FCM) to explore the community resistance to mobility disruption from a systems perspective. FCM illustrates the causes and relationships of system components and the system's behaviour as perceived by the local knowledge. This tool allows for developing scenarios incorporating different perspectives identified by the local communities. The scenario development approach is helpful, especially when data in Sri Lanka is scarce for proceeding with quantitative models. The first FCM workshop was organized to create FCMs; the second was to validate the consensus FCM. Local community, local administrative officers and experts participated in these workshops. FCM structure analysis revealed the most central variables that demonstrate community mobility disruption and resistance, such as the flood height, displacement, evacuation and travel needs during floods. Among the community mobility system drivers were income, preparation, social connection and support and physical ability and fears.

The second part of the research tested three scenarios to understand the travel requirements based on the choice of place to stay during the floods. The results show that evacuation needs, travel needs for essentials, and watch property are minimal if the people can stay in their place or a neighbouring house, so using boats and walking is minimal. If the people decided to stay at the displacement camps, the travel need for health and essentials is minimal, yet requires many evacuations. This study recognizes the importance of a place of stay during a flood as a

determinant of different levels of travel needs during a flood event. This study can provide insights into community mobility-related policy planning and community-level capacity enhancement programs to improve the resilience of urban communities.

Open digital twins adapting data-oriented system architecture and artificial intelligence for Australian infrastructures

Fathima Nishara Abdeen, School of Built Environment, Faculty of Arts, Design & Architecture, University of New South Wales

Samad ME Sepasgozar, School of Built Environment, Faculty of Arts, Design & Architecture, University of New South Wales

Australia's investment in transportation infrastructure has seen a gradual increase over the past decade and it is anticipated that the investment in major public infrastructure to exceed A$218 billion between 2021 and 2025. As part of its 2021 plan, the country seeks to ensure that all government-funded infrastructure projects incorporate a digital twin throughout the course of the next 10-15 years. The openness of the digital twin is a key initiative that leads to realising the vision of a digital twin ecosystem by improving the inclusivity of democracy, the standard of laws and regulations, and the efficiency of city governance. An open digital twin uses the wisdom of crowd to allow an additional feedback loop along with the capabilities for the citizen to interact with the digital twin and update the digital twin in real-time. This open and collaborative approach for infrastructure digital twins would ensure a digital twin ecosystem remains current and relevant for a wide spectrum of contributors and users. A new paradigm of data-oriented architecture is adapted to present a novel theoretical framework for developing Open Data Oriented Digital Twin (ODODT) with the potential to lead towards open infrastructure maintaining systems. This system engages citizens to participate in updating the system and receive real-time data about the services provided by the infrastructure facilities. The paradigm drives through three sets of principles considering data as a first-class citizen, decentralisation as a priority and openness. This leads to the development of data-driven, loosely coupled, autonomous, and open infrastructure digital twins. However, data-oriented architecture as a concept is not widespread yet, and there is no consensus on how it may be implemented for open digital twins. The review addresses this gap by setting the data-oriented architecture paradigm's guiding principles as the underpinning method to realise open digital twins for Australian infrastructure. The study argues how the prospects of first-class citizens, decentralisation as a priority and openness could address the challenges inherent to open digital twins. Similarly, the study proposes the use of artificial intelligence as a problem-solving paradigm for open digital twins and the use of different tools and software to enable digital twin functionality. The study findings will assist in increasing awareness of the use of

data-oriented architecture as an emerging paradigm to ignite interest in the development of open digital twins.

Measuring spatial inequality of urban park accessibility and utilisation: A case study of public housing developments in Auckland, New Zealand

Jessie Colbert, The University of Auckland

I-Ting Chuang, The University of Auckland

Katarzyna Sila-Nowicka, The University of Auckland

Urban parks and green spaces in cities are essential neighbourhood assets, however the vast urbanisation and densification of urban areas highlights an increasing problem of spatial inequality in the accessibility of urban green spaces. For those living in socioeconomically vulnerable neighbourhoods, the impact of spatial inequality of urban park access can be the greatest. These populations tend to suffer from greater risks of social-economic related health inequalities, which can be further exacerbated by a lack of access to urban green spaces.

We propose a methodological framework utilising mobile phone locational data collected in 2020 for the Auckland Region of New Zealand to investigate accessibility to urban parks and assess urban park utilisation. We use mobile phone locational data to draw connections between the most likely "home" location of a mobile phone user and the parks they visited. We focus on public housing tenants, who are among the most vulnerable groups in society, and compare park accessibility and utilisation between neighbourhoods with the highest concentrations of public housing developments and those without. We assess accessibility using Euclidean distance, network analysis, and gravity models, and we develop four new metrics to assist in understanding the actual urban park utilisation of green spaces available to residents: difference in distance between closest park available and visited (DAT) from a user's home; used park opportunities (UPO) within a distance from a users' home; locality of park visits (LPV); and nearest park visitation rate (NPVR), the proportion of users who visited their closest park. The area deprivation of neighbourhoods is assessed using the New Zealand Index of Multiple Deprivation 2018.

The results reveal that public housing neighbourhoods tend to have poorer park accessibility, with fewer neighbourhood parks available that are also smaller in size, compared to areas with no public housing. In addition, those living in public housing neighbourhoods tend to travel greater distances to reach parks of larger size, which offer more amenities, rather than utilising the park closest to their home. Public housing neighbourhoods that have poor urban park accessibility were found to have higher levels of area deprivation, highlighting the importance of addressing spatial inequalities in accessibility and park opportunities for these

neighbourhoods. The results are pertinent for policy makers and urban planners regarding the distribution of future urban greens. The novel park utilisation analysis approach of this work provides an opportunity for further research and could be applied to other case study locations and population groups.

A clustered-based approach to analyse the impact of cycling infrastructure on travel mode choice in Melbourne, Australia

Jafari Afshin, RMIT University

Singh Dhirendra, RMIT University

Giles-Corti Billie, RMIT University

In cities dominated by cars, such as Melbourne, Australia, there is typically limited information on cyclist preferences and differences between socio-demographic cohorts when it comes to cycling, which makes it even more complicated to design effective cycling infrastructure interventions.

Transport models, although traditionally designed to model motorised travel, have the potential to be used as a decision support tool for large-scale cycling transport simulation, as they can capture heterogeneous interactions and decision-makings of the travelling agents. However, there is a lack of understanding of how different clusters of cyclists value time and cycling infrastructure in their decision to cycle for transport.

In this paper, we clustered different demographic cohorts of cyclists in Melbourne recorded in the travel survey data based on how far and for how long individuals cycled. Four clusters were identified: 1) an all men cluster with a high bicycle travel time and distance; 2) a cluster of mostly male and middle-aged commuters travelling above average time and distance; 3) a cluster of mostly female travellers in working age who cycled below average travel distance and time; 4) and a cluster of under 20 travellers as well as females 60 to 65 who cycled short distances and times.

A popularity-based routing module was adopted based on the traffic volume of the road segment from aggregated smartphone application data to assign a cycling route for each trip from travel survey data. Car, walk and Public Transport routes were assigned using Google Maps Distance Matrix API.

Next, we developed and estimated a multi-nominal logistic regression mode choice model for four modes of walking, cycling, public transport and driving, for all trips recorded in the travel survey data. The model parameters were estimated for each demographic cluster separately.

The results of the mode choice model showed that the travel time was significantly correlated with the choice of travel mode for all clusters, while cycling infrastructure was shown to be

significantly correlated for all clusters except for cluster 1, and travel cost was found to be significant for all clusters except for cluster 4.

The findings of this research can inform cycling infrastructure planning for highly sprawled and low cycling cities such as Melbourne build. Additionally, estimated choice parameters can be used to build city-scale transport mode choice models incorporating the heterogeneous impact of cycling infrastructure on different demographic cohorts.

Network effects of green bridges: A case study of the Gold Coast Green Bridge Program

Madison Bland, Griffith University

Heather Shearer, Griffith University

Kelly Bertolaccini, Griffith University

Burke, Matthew, Griffith University

The provision of dedicated and connected active transport infrastructure is critical to supporting the efficient and safe movement by foot or by bike. Providing direct network linkages are made problematic in cities that possess physical impediments, such as natural features like rivers and constructed ones like highways. To overcome the fragmenting effect these barriers place on cities' active transport networks, larger-scale infrastructure implementations such as "green bridges" (i.e. pedestrian and cyclist-only bridges) are being delivered by Australia's local and state governments. The rationale behind this is that by linking disconnected active transport desire lines and nodes, a city can begin to generate a walking and cycling network effect. For the Gold Coast, fostering an active transport network effect is viewed as critical in undoing the historic development of canals and waterfront detached housing estates that has resulted in a dispersed urban fabric and fragmented transport system. Drawing on a case study of the City of Gold Coast Council's Green Bridge Program, this industry-supported research sought to evaluate the active transport accessibility benefits from Council's strategic investment in 28 green bridges. The research draws on a GIS network analysis approach, using ArcGIS Pro 3.1 software and open-source data to build and analyse both a pedestrian and cycling infrastructure network for the Gold Coast Local Government Area. This process adopted a novel approach to internalise a cycling infrastructure road hierarchy based on perceived cycling safety and a road crossing facility typology that factors dwell times for active transport users. The accessibility analysis based on users' travel time savings was then run across three scenario types: 1) each individual green bridge; 2) a packaged implementation of those bridges in close proximity; and 3) across the whole network. Applied results directly inform the implementation of Council's program by prioritising green bridges based on enhancements to walking and cycling accessibility. Importantly, it also reflects the conceptualisation that networks are the sum of all parts by providing insights for the delivery of the entire scope of works. Additionally, it also underlines the importance of factoring in the supporting infrastructure (i.e. pathways and crossing

facilities) that contribute to generating network effects by ensuring large-scale green bridge implementations appropriately connect to the existing network.

Multiple Accessibility Analyses of Neighborhoods in Sydney

Ayse Ozbil Torun, Northumbria University

Ozgur Gocer, The University of Sydney

Rashi Shrivastava, The University of Sydney

Alvanides, Seraphim, Northumbria University

Climate change, hybrid working, and the pandemic have triggered significant changes in cities, including inner-city shrinkage and shifts in transportation modes and lifestyles. These changes have sparked interest in developing decarbonisation strategies to sustain socially and economically vibrant, inclusive cities that promote health and well-being through active mobility. Modifications to street network infrastructure have been a prominent focus of investment in this context, as it has now been demonstrated that street network design has a considerable influence on people's mobility behaviour in cities. Changes to street networks, such as prohibiting through-traffic and applying traffic calming strategies, can reduce car usage while also encouraging active travel, particularly over short distances. Increased active travel has significant environmental (i.e., enhanced air quality, reduced carbon emissions) and public health (i.e., enhanced physical and mental wellbeing) benefits.

This study, which is part of an ongoing larger research project, showcases a novel and technically advanced methodology to objectively evaluate the existing urban street networks in terms of their walkability and accessibility potential. Focusing on two SA2s (Statistical Area Level 2), which are medium-sized general-purpose areas, in Sydney, Australia, we employed refined GIS-based measures of accessibility using Place Syntax Tool (PST). PST is an open-access software that combines the space syntax description of the urban environment with traditional descriptions of the attraction. We conducted multiple accessibility analyses: (i) Syntactic centrality measures, including integration and choice, that can differentiate between well- and less well-connected streets within a given area; (ii) Attraction Distance, which measures network-based proximity to key amenities; and (iii) Attraction Reach to Population that calculates the number of people served by each amenity within a predetermined distance threshold. Through these analyses, we identified areas with a high residential population density but limited accessibility, and vice versa, and we identified spatial inequalities in how well key services (i.e., public transportation systems, and food outlets) serve the local population. These analyses offer a valuable tool with which to inform design interventions in the street network design, such as pedestrianisation of specific streets, improving the

connectivity of access routes, including creating cycle corridors between the peripheral and central parts of the city, as well as improving access to key urban functions.

Transport through the lenses of diverse women

Nicki Williams, University of Otago

The design of our cities and transport systems create different experiences for women and these experiences are further affected by individual circumstances. Traditionally, transport systems, urban areas and public spaces were designed by men. As a result, these spaces are designed to meet the needs of the men who designed them, resulting in cities that work best for those who work full-time, have adequate disposable income and have no unpaid caregiving roles. These decisions were not intentional, but occurred because diverse needs were not considered. When we apply a female lens to urban design and transport we find that city zoning practices, priority of road users, cycle facilities, public transport services, transport infrastructure, footpath design and lighting can all affect travel patterns and safety for women.

To date the majority of research in this space has considered women as a homogenous group. However, factors such as level of income, ethnicity, age, disabilities and caregiving roles all have varying impacts on women's experiences of towns and cities. Not considering these additional factors has resulted in a gap in knowledge about women's travel needs. As such, my PhD seeks to understand how to improve urban and transport planning and design outcomes for women from a diverse range of backgrounds and circumstances.

My research uses a qualitative approach with data generated from thirty-three in-depth interviews. Nineteen interviews were with diverse women about their daily travel experiences and fourteen interviews were with people who work in, or who have influence on, the transport sector, about their experiences and understanding of women's travel needs.

This presentation will provide background to the topic by bringing together local and international studies, examples and data about how city and transport planning and design impacts on women. This will be followed by a discussion of the early findings from my PhD research. This information will lead to new insights about the travel experiences for diverse women; the complexities of addressing these in policy and the built environment; and the potential mechanisms required to improve these experiences.

Circle: migrations and mundane mobilities of childhood

Jennifer Kent, The University of Sydney

The focus of this conceptual piece is one primary school's celebration of the migratory bird, the Bar-tailed Godwit. The Bar-tailed Godwit is an unassuming bird with a migratory pathway that scales the globe, infamous for its ability to fly longer distances than any other bird in the world. In Spring, flocks of Godwits come from the Arctic Circle to a small selection of bays along the Australian east coast. Over the summer, they recover from their voyage, and feed on mudflats, in preparation to fly again in Autumn.

At Abbotsford Public School, situated on a bay of Sydney's Parramatta river, the birds are celebrated and supported, with their journey, precarity and place in indigenous stories incorporated into the curriculum and iconography surrounding the school. The message is global, respectful and communal. Juxtaposed to this message is the day-to-day transport practices of families in Abbotsford, which is a suburb, in a city, in a nation, shaped by private car use.

Abbotsford's streets are quiet, characterised by reduced speed limits, marked bike lanes, adequate footpaths and grid-like designs. Although it provides an ideal environment for active transport use, the suburb echoes the practices and preferences of the city that hosts it. The area is relatively wealthy, and at school drop off time the curbsides lining the perimeter of the public school are temporarily adorned with SUVs which eject uniformed children, school bags and packed lunches before driving off, or turning to head back home.

In this piece, attention is drawn to the simultaneous contrasts and parallels between the flight of the Godwit and children's experiences of mundane mobilities. The intention is to demonstrate the scales and subjects used to entrain children to different images and practices of mobility. The children are inspired by the Godwit's unique ability to travel and in this way the bird is elevated to the realm of needing care and concern. The connection, however, between what the children do each day to arrive and depart from school, and what the Godwits do annually, is missed. The imagery fails to call upon the children to consider their own routines of mobility against that of the Godwits. The circle, between the tale of the Godwit and the reality of children's mobility, is interrupted by routines, roads and role modelling which are all defined by the private car.

Community transport and Australia national disability insurance scheme: problems, operator responses, and a possible pathway forward

Daniel Clarke, Griffith University

Matthew Burke, Griffith University

Leung Abraham, Griffith University

Samid SULIMAN, Griffith University

Australia's National Disability Insurance Scheme (NDIS) was a signature reform of the Rudd-Gillard Labor Governments, enacted via legislation in 2013. One of the decisions of the scheme designers was to include transport, including community transport operations, within the scheme. Community transport offers pre-booked, door-to-door services, mostly for persons with a disability and for seniors. Usually run by non-profit operators, the community transport sector tends to get the least funding, the least government attention, and the least research interest, of all transport modes in Australia. There has been limited research as yet into how money actually gets to operators via clients through the NDIS, how this compares to other funding sources such as the Commonwealth Home Support Package (CHSP), and how the arrangements encourage fragmentation of an already precarious community transport system. A Griffith University study has commenced to respond to these research gaps. The study's first phase findings are presented. Conceptual diagrams show how funds are allocated, delivered to clients, then through to operators via the NDIS and CHSP schemes. The arrangements have set up a competitive multi-operator community transport sector in a field that is in many senses a natural monopoly. This reduces shared trip-making, adding significant cost to everyone involved, from the client-passengers, to the operators, through to the taxpayer. The basic economics lead to low service levels and kms travelled, but high costs. Innovative trials of shared community transport operations, most notably in Townsville, Queensland, show potential for the sector to overcome some of these problems, but only where and when there is operator and political will. Novel algorithms designed through the good will of key actors for the community transport sector, are making a difference. How these innovations work, and the potential social and economic benefits if expanded widely, are explained in-depth. The methods for the next phase of the study are outlined, including a comparative case study of Townsville and Mt Isa, to further understand the outcomes for clients and operators under these different models of provision.

Integrating micromobility and public transport: Evaluating Brisbane's first/last mile trial for sustainable urban mobility

Abraham Leung, Griffith University

Matthew Burke, Griffith University

Queensland is an early adopter in legalising personal mobility devices (PMDs), including e-scooters. Since then, PMDs have become an integral component of urban transport across the state. Micromobility, which encompasses shared e-scooters or e-bikes, has proven particularly attractive in areas underserved by public transport, as well as for short journeys typically lasting less than 10 minutes. The potential for integrating micromobility with public transport to enhance accessibility has been proposed with further aims to reduce car usage and promote sustainable transportation.

To foster intermodal integration of alternatives to car use, in the capital city Brisbane, local and state governments have collaborated with micromobility sharing operators to introduce Australia's inaugural first/last mile trial scheme for micromobility and public transport. This involved the provision of dedicated parking spaces at busway stations and a publicity campaign, with the objective of creating more seamless transfer between transport modes.

This research work presents a summary of the scheme's key findings, drawing on data from two surveys conducted before and after the scheme's implementation. The analysis focuses on whether users have replaced car use (either parked near stations or drop-offs), user perceptions, as well as the enablers and barriers that influence the trial's outcome. Additionally, the socio-demographic profile of scheme users and general trip patterns were also investigated.

Results indicate the car replacement effect is modest but remains limited. While the provision of dedicated parking spaces was well-received, users expressed that additional financial incentives could be the missing ingredient required to encourage the use of micromobility as a first/last mile connector to public transport. In light of these findings, this study proposes a framework for the development of mobility-as-a-service (MaaS) solutions to further the integration of micromobility and public transport modalities, including the introduction of subsidised fares or discounts for micromobility users who combine their trips with public transport.

Brisbane's pioneering first/last mile scheme for micro- and mass-mobility has demonstrated its potential to contribute to a more integrated and sustainable urban transport system. This

first/last mile trial can set a precedent for other cities to follow, paving the way for more accessible, sustainable, and efficient urban transport.

Fear of Missing Out (FOMO)? Australasian cities and our transport futures

Matthew Burke, Griffith University

Australia and New Zealand are missing out on urban improvements other nations are currently experiencing. This paper reports on investigations into three failures to adapt and innovate: i) adoption of light electric vehicles (EVs); ii) retention of the world's highest posted speed limits in local streets; and, iii) incapacity to deliver transit-oriented development (TOD). For light EVs, state and city successes with micro-mobility, especially e-scooters, are hampered by a lack of Australian standards. States are left trying to regulate these vehicles via road rules. New EV categories, such as the Citroën Ami, are prohibited due to Australian Design Rules (ADRs). For street speeds, Australia and New Zealand cities are now left with the handful of global laggards (Saudi Arabia, Qatar, Chile) still using 50kph local street speeds. Even US cities like Washington D.C. and Denver have moved to 20mph (32kph) local street speeds. For TOD, twenty years of TOD taskforces and TOD guidelines has not translated into much in cities like Brisbane. Regional plans across Australia for market-led secondary CBDs are stymied by economic and practical reality. Tidal passenger flows in and out of central areas create great inefficiencies and congestion across all modes; public transport subsidies stay stubbornly high. Analysis reveals the role of institutional structures. For Light EVs, they face the near impossibility of quickly altering Australian Design Rules, involving the Strategic Vehicle Safety and Environment Group (SVSEG), the Australian Motor Vehicle Certification Board (AMVCB), the Technical Liaison Group (TLG) and the Infrastructure and Transport Senior Officials Committee (ITSOC), plus the relevant Transport Ministers across Australia, the states and Territories and New Zealand. Bringing in quadricycle EVs will likely need all these bodies to agree, then for the Ministers to vote. For street speeds, Chief Engineers in the states and territories, and equivalents in NZ central government, have more power, but tend to look to local governments to move first, or to wait for others to move in the national land transport reform processes of the National Transport Commission (NTC). Australia's move from 60 to 50kmh took a decade from first steps in the mid-90s, to Commission approval in 1999, to implementation in Queensland in 2003. For TOD, a mixture of state and local government interface issues, feasibility, land assembly, and the threat of NIMBY land-holders, led to planning failure in cities like Brisbane. Pathways to reform institutions and make more radical change, are identified.

The Walking Tourist: Safely Home

Swarnali Dihingia, PhD Student, Victoria University of Wellington, New Zealand

Morten Gjerde, Associate Professor, Norwegian University of Science and Technology, Trondheim, Norway

Brenda Vale, Professor, Victoria University of Wellington

Walking is a popular and sustainable mode of transportation, particularly for tourists exploring new and unfamiliar places. Although walking is a relatively safe travel mode, pedestrians are still exposed to potential hazards. At the same time, concerns about personal safety can impact the walking experience, potentially leading to decreased enjoyment and even avoiding certain areas altogether. Despite the extensive literature on walkability studies, there remains a lack in studies involving the perceptions of tourists while out walking.

This paper investigates the perceptions of safety amongst tourists and locals while walking in two New Zealand cities, Christchurch and Wellington. Data was collected through a mixed method, paper-based Walk Diary, which allowed for the capture of differences in perceptions between the two groups. The results indicate that tourists were more likely to perceive an area as unsafe, reacting particularly to matters such as other users and traffic, crime, and visibly dilapidated areas. Conversely, locals tended to feel safer due to their familiarity with the area and the presence of social connections. However, both groups identified certain areas as problematic, indicating that improvements could be made to enhance safety for all pedestrians.

The paper assesses differences in the perceptions and experiences of both tourists and locals when walking, with a particular focus on identifying effective strategies to improve safety and enhance the overall walking experience.

Overall, this study contributes to the growing body of literature on walkability, providing insights into the unique perceptions of tourists and locals when it comes to safety. By highlighting the areas of concern and potential solutions, this research provides guidance for urban planners and policy makers in creating safe and enjoyable walking experiences for all.

The impact of local context factors on practitioner approaches to effecting change in sustainable transport

Helen Rowe, RMIT University

Urban transport is linked to many sustainability issues, particularly in cities which have developed around, and continue to be wedded to, the car. While sustainable transport policy and research has grown in prominence in recent decades, in many car-centric cities this has not necessarily translated into sustainability gains on the ground. A gap here, which this research contributes to addressing, relates to the observation in the transport literature that transport research tends to focus on the what of transport policy rather than the how of policy making. Addressing this gap yields useful insights into effecting change as well as factors contributing to the lack of progress in sustainable transport, including considering if this research gap is reflective of a similar lack of attention in transport practice to the how of policy making. The current research contributes to the emerging discussion here by exploring how practitioners, who are striving to effecting change related to sustainable transport, go about this task. This qualitative research draws on semi-structured interviews with over 60 mid-level, change agent practitioners in three case study cities: Auckland, Melbourne and Vancouver. The findings not only offer new insights into practitioner agency and ways they influence change, building on existing understandings of deliberative practitioners, reflective practitioners and policy entrepreneurs as well as actors engaged in transitions management. The findings also reveal the influence of local context, including factors related to governance and political and institutional cultures, on the suite of approaches the change that practitioners have in their arsenal. Exploring the impact of these context factors is the focus of this presentation, which set out the strengths and weaknesses of practitioner approaches across the case study cities as well as insights into how practitioner capability might continue grow and go on to improve sustainability outcomes. Emerging from this work, a typology of city contexts and the related change agent strategies is then proposed.

Automated Mobilities and Cybercities: Barriers and Opportunities

Moayad Shammut, School of People, Environment and Planning, Massey University

Muhammad Imran, School of People, Environment and Planning, Massey University

Syed Faraz Hasan, University of New England

Automated Vehicles (AVs) are commonly presented as a fundamental part of the future of transportation. AVs can potentially offer positive outcomes for cities concerning safety, shared mobility, congestion, emission, and the wider economy. However, readiness of AV technology and infrastructure are crucial for AV's future safe operation and adoption. Through the lens of the mobilities paradigm, we have identified the AV technology risks and readiness in New Zealand (NZ) and have explored how that may influence AVs uptake in the future. We conducted a focus group and 11 in-depth interviews with the AV automotive industry, AV consultants, telecoms and cybersecurity experts to gain an industry perspective on AV technology risks and readiness.

Our findings are categorised into three broad themes: (1) infrastructure readiness; (2) business feasibility; and (3) cybersecurity. First, AVs should ideally operate without significant interaction with other road users due to issues related to object classification, GPS positioning and connectivity, which requires considerable adjustments to existing infrastructure in order to accommodate AVs' safe operation. Second, the installation and trialling of AVs hardware and infrastructure were described as very expensive. Thus, from an industry perspective, the lack of government's funding and industry support programs along with complex regulatory processes were found to be the main barriers to business entry in NZ. Third, our findings reveal various potential scenarios for surveillance and exploitation of AV users' privacy. The AV industry may be able to track people's mobility habits, send advertisements, and monetise users' data to improve their systems which might violate existing privacy practices. Findings also show that AVs are potentially at the risk of hijacking, GPS manipulation, and generating false traffic alerts. In NZ, there has been no concrete action towards establishing standards around AVs cybersecurity according to participants. Collectively, our findings argue that: government-industry partnerships, removal of regulatory barriers, standardisation, and digital infrastructure trial projects are essential components that would move the AV industry towards a feasible implementation of AVs in the future.

This paper concludes that NZ infrastructure and regulatory processes are yet to evolve to

enable the operation and uptake of fully automated vehicles. There is an opportunity for AVs to be deployed in major cities as shuttles to continuously learn and adapt from operating in complex real-life urban environments. Overall, this paper provides a context-specific overview for policymakers, urban planners, and researchers to understand the barriers and opportunities towards the implementation of AV technology in urban contexts in the future.

Last Stop Goongerah high speed mobilities and the Australian VFT saga

David Nichols, University of Melbourne

Elizabeth Taylor, Monash University

Robert Freestone, UNSW

In December 2022 the Australian Parliament passed legislation to enact a new High Speed Rail Authority (HSRA) to evaluate the case for high speed (and faster) rail networks and corridors linking capital cities and regional centres in NSW, Victoria and Queensland. This initiative represents the latest investigative step towards the feasibility of what would be a massive infrastructural commitment that stretches back four decades. Australians have been alternatively entranced and disheartened by a succession of Very Fast Train (VFT) proposals which have promised to not only deliver clean, fast, cheap travel between capital cities, but also potentially reshape the demographic spread of populations. None have come close to eventuating. Framed by the politics of infrastructure and mobility, this paper revisits this history and its legacies beginning with discussion of the travel, lifestyle and future urban developments of the 1970s, notably the 1975 Land Use and Travel System Alternatives for New Cities (LUTSANC) report. The focus is on the first prominent VFT project proper in 1983 "the brainchild of CSIRO scientist Paul Wild" and its decade-long rise and demise under businessman Peter Abeles. The initial proposal, supported by a consortium of private interests with Abeles' TNT the major player, used a suite of sophisticated documentation to promote the idea via proposals to buy up real estate and develop new towns. The preferred route was between Melbourne, through Gippsland and the Snowy Mountains to Canberra and ultimately Sydney. One commentator pointed out that not only would the VFT redistribute population throughout Victoria "achieving national decentralisation like no other previous mechanism" but that it would engender unprecedented upheaval. This would take the form of extraordinarily inflated property values and the reshaping of Gippsland as a population corridor or, as another prominent set of lobbyists asserted in anti-VFT campaigns, cataclysmic damage to regional forest ecologies ("Last Stop Goongerah: A documentary on the Very Fast Train"). Concurrent contentious proposals, notably the Japanese-funded Multifunction Polis, were linked with the VFT in the public mind. Notwithstanding the prominent "headline" on VFT "fast and efficient travel between capitals" a key element of most business models has been the value capture mechanism. Our paper examines successive stages of the VFT process, its advocates and detractors, and seeks to establish not merely the historical contexts within which these specific enterprises faltered but what such failure says about the present and future of comparable

initiatives including HSRA.

Is Bigger better? Post-Merger Transport Performance Evaluation of Auckland Council

Fawad Ahmad, Massey University

Imran Muhammad, Massey University

Dimu Ehalaiye, Massey University

Laswad, Fawzi, Massey University

Do bigger and amalgamated councils perform better than their prior diverse and smaller predecessors in delivering transport and infrastructure planning? In New Zealand, a significant amalgamation of local councils occurred in 2009 when the eight local authorities (including Auckland Regional Council, four city councils, and three district councils) were merged into one super or metropolitan council, called the Auckland Council (AC). According to the Royal Commission Report on Auckland Governance 2008, key drivers of this restructuring were a growing dissatisfaction regarding the performance of local councils in the Auckland region, the ineffectiveness of local leadership, difficulty on the part of the central government to deal effectively with scattered voices, the underperformance of the local economy in general, and envisaged economies of scale.

This paper examines the financial and service performances of the Auckland Council in the post-amalgamation era with a particular focus on transport infrastructure planning. Auckland Council is spending around 70 per cent of the total capital budget on transport in the post-amalgamation period. We analyse the financial performance of the Auckland Council and Auckland Transport by two methods, 1) using the key performance indicators (KPIs) applied by Sinnewe et al. (2016), and 2) using service delivery measures of Auckland transport roading and public transport. The data has been collected from 2013-2021 annual reports of Auckland Council and Auckland Transport publicly available on their website.

The data analysis will highlight public transport and roads related capital expenditure (CAPEX) and operating expenditure (OPEX) in the last decade. This analysis will contribute to the debate of whether the post-merger transport performance of the Auckland Council has improved or declined. The second phase of the research explores the effectiveness of the policy towards public transport and potential motivations for increased commitment to public transport infrastructure investment and service delivery in the post-Auckland Council formation era.

A sociospatial perspective on regional integration: the case of high-speed rail planning in Hume

James Whitten, The University of Melbourne

The relationship between Australia's metropolitan areas and their hinterland regions has rapidly evolved since the turn of the twenty-first century. Government industrial policies, climate change mitigation strategies and demographic trends accelerated by COVID-19 have all increased social, economic and political interdependencies between metropolitan and regional communities. These dynamics are typically analysed through an economic geography lens to understand the implications of internal migration, shifting mobility patterns and labour markets for regional policy; however, this lens typically does not capture crucial institutional and political dynamics at play. This paper aims to extend economic perspectives on regional integration by exploring the sociospatial dimensions of large infrastructure planning in non-metropolitan regions. A case study of high-speed rail planning in Hume "an administrative region in northeast Victoria" will examine how different modes of infrastructure governance interact with regional institutions. The institutional and political structures that underpin three high-speed rail proposals will be analysed in relation to regional governance reforms that transpired in Hume between 2008 and 2017. Findings from the analysis illuminate the emergence of hybrid political structures that mediate between the institutions of project planning and formal and informal regional institutions. The findings have implications for the way that academic researchers and public policymakers understand the social agency of large infrastructure planning in regional areas, which differ fundamentally from metropolitan areas by virtue of their peripheral status-both economically and politically. In closing, the paper will briefly reflect upon the implications of current high-speed rail plans for regional governance in light of a post-COVID "technocratic turn" in project governance.

A systems approach for the integration of Green Infrastructure within urban design and planning policy.

Renata B. Peres, Federal University of São Carlos (UFSCar), Department of Environmental Sciences, Brazil / Visiting Research Fellow, University of the Sunshine Coast - UniSC, Australia

Silvia Tavares, University of the Sunshine Coast

Nicholas Stevens, University of the Sunshine Coast

The emergence of the term Green Infrastructure (GI) dates to the 1980s; but its approaches are closely related to the trajectory of knowledge in landscape ecology, greenways, Garden Cities and the sustainable urbanism literature. In relation to more contemporary approaches, GI, is also articulated within the concepts of ecosystem services, urban forestry, and Nature-based Solutions (NBS), all of which are anchored in quite complex and systemic approaches. Consequently, the concept of GI remains many things to many people when considering it across spatial scales and discipline domains – this has resulted in some challenges for its operationalisation and implementation within complex urban systems. This research seeks to establish a clearer articulation of GI approaches in urban settings, with an objective to support its integration within urban design and planning policy at the regional and local government levels. In recognition of the variety of approaches and complexity associated with GI, the research utilises sociotechnical systems methods to explore the range of impacts and actors, to enable enhanced GI policy development and deployment. This presentation will overview fundamental GI principles and detail the more contemporary principles the research has revealed. In addition, it will identify the range of actors and their relationships, who are required for GI policy integration which supports necessary climate change adaption and mitigation at the urban and regional scale.

Best practice for urban transport decarbonisation: a case study of Brisbane (Australia)

Anais Fabre, School of Environment and Science, Cities Research Institute, Griffith University

Michael Howes, School of Environment and Science, Cities Research Institute, Griffith University

Tom Deweerdt, School of Environmental and Earth Sciences

Avoiding the worst impacts of climate change requires a transition to net-zero greenhouse gas emissions by mid-century, if not before. Urban transport systems significantly contribute to emissions, so effective mitigation strategies for this sector are needed. Our research paper drew a best practice framework for transport decarbonisation based upon a review of the international research literature that entails shifting passengers to net-zero or low-emission travel modes; investing in more energy-efficient technology options; and managing the demand for transport through a combination of land-use planning and socioeconomic policies.

Many drivers and conditions are necessary to achieve these outcomes, including polycentric governance, firm institutional commitments, urban renewal, and technological change. This set of solutions leads to various co-benefits for the city, such as economic productivity, more efficient/attractive transport systems, and improved liveability for residents. Nevertheless, negative emissions in other sectors are needed to achieve net zero emissions in cities, and constraints on the ground must be considered.

This best practice framework was then applied to a case study conducted in Brisbane (Australia) to see how the gap between the concepts developed in the research literature and the practice of making a change may be bridged. A policy analysis of key transport projects in the city was undertaken, such as:

-The Brisbane Transport Plan, which provides general guidelines for making Brisbane's urban transport system more attractive, efficient, and sustainable.

-The Cross River Rail project, which is a large-scale public transport project aiming at improving the rail network.

-The Green Bridges program, which involves land use and urban planning to promote active mobility.

Brisbane has the advantage of providing a reasonably reliable public transport system, expanding its bicycle/walking paths, and engaging local communities in the decision-making and implementation. However, Brisbane faces a high degree of urban sprawl and car dependency, exacerbating its ecological footprint. The current level of the city's reliance on cars requires significant efforts from decision-makers to shift travel behaviour towards more sustainable transport options.

Rethinking parking futures: A critical exploration of street parking imaginaries in the planning literature

Rebecca Clements, University of Sydney

In transitioning Australian cities away from their current car dominated states, urban researchers and advocates must critically re-examine the normative role of car parking: one of the most powerful elements of change in just and sustainable mobility transitions. On-street parking represents a major source of conflict amongst growing demands for street space reallocation such as for health and safety, urban greening, disaster resilience, and mobility justice outcomes that challenge the hegemony of the car. Practically achieving just and sustainable mobility transitions are contingent on collectively making sense of the prevailing and normative place of street parking within progressive parking and transform reform alternatives.

Despite the importance of grappling with this ubiquitous urban phenomenon and its politics, amongst emerging professional and media discourses regarding parking policy reform options, there is often a lack of clarity or vision around the role and value of street parking. This gap in the framing of street parking includes its complex array of urban impacts, its relationship with other elements of parking reform (such as off-street options), and knowledge of available alternative policy approaches. This confusion and absence arguably play a role in the chronic failures of parking and active transport reform proposals (such as for safe cycling infrastructure) which continue to get entangled in strong, and often repetitive patterns of, public opposition.

In this research, I shine a light on the role of planning researchers in perpetuating or challenging common framings of street parking. The work draws on a systematic literature review of urban planning research to examine discursive norms regarding understandings and normative views of street parking. The findings reveal key areas of limited understanding and contradictions in many professional framings of the role of street parking and reform possibilities. Contrasted with existing literature on parking policy best practice, this research highlights research gaps surrounding the current and future role street parking plays in urban environments and future imaginaries. Extending from this, I also critically question the role current planning research may be playing in the emerging political discourses surrounding parking reform. I posit productive avenues for planning researchers to develop more robust, critical approaches to imaginaries of parking futures.

Let's call it out for what it is: Our transport discourses are not only culturally maladaptive but delusional

Hulya Gilbert, La Trobe University

Marco te BrÖmmelstroet, University of Amsterdam

Ian Woodcock, The University of Sydney

The history of planning and transport is littered with examples of questionable practice, from poor urban planning and design principles to the harmful cultural and social norms (including the language used in reporting road trauma or traffic) and regulatory practices that continue to entrench social and environmental injustice by privileging cars. Boyden's description of cultural maladaptation as "the propensity of culture to influence people's mindsets in ways that result in activities that are not only nonsensical in the extreme but also sometimes cruel, destructive and contrary to nature" (2016:77), is useful in understanding the ever-slow progress of the transition to sustainable mobilities in Australasia.

Using this notion of Boyden's cultural maladaptation within the framework of urban and transport planning, this paper conceptualises the social, economic and political barriers impeding this transition to more sustainable mobilities in Australasia. In particular, it will assess the culturally maladaptive processes that Australasian cities are subject to, with attention to their roots and the ongoing practices that sustain them. By tracing both historical and contemporary transport discourses along with the key actors, reformers and counter-reformers, this paper aims to provide further insights into the stubbornly resilient nature of maladaptation and the magnitude of the social and political change we need to overcome them. Understanding the evolution of the problematisation and politicisation of this topic is essential to not only explain but to ultimately overcome the policy-outcome gap regarding car dependence across Australasian cities.

Such insights are also critical to develop the body of knowledge and professional status that the planning discipline continues to lack (Yiftachel 2001) compared to other disciplines which have been hitherto more successful in influencing behaviour to improve health and wellbeing. For example, unlike well-established positions such as "smoking kills" long-held by the medical profession, the planning discipline is yet to be directly guided by clear empirical evidence regarding the detrimental and long-term effects of car dependence when planning and

designing our everyday environments, even though car crashes remain a leading cause of death across the globe.

By exposing the culturally maladaptive framings that dominate current transport discourses that reproduce these disciplinary deficiencies and replacing them with a new paradigm, one that adequately enables a sustainable and just transition, it is hoped that this paper will raise a critical discussion and self-reflection we urgently need.

Is there a normal state of the urban?

Joshua Evans, University of Alberta

A key tenet of smart city development is that real-time, 'big data' can be harnessed to create a better city. But what metrics and models can we use to determine what is better? The 'new' urban science provides an answer to this question. This nascent field advances a computational and predictive understanding of urban systems. True to its namesake, urban science is distinctly positivist: it searches for empirical regularities (or 'universals'), particularly ones that relate to infrastructural properties, which can be used to understand the processes that drive and sustain cities. The new urban science has been proposed as a possible paradigm for the 'smart' city and thus may have consequences for future urban configurations in Australasia and beyond. This paper presents a philosophical engagement with a key framework of urban science - settlement scaling theory - in an effort to draw attention to its normativity. To do so, the paper applies the philosophical ideas of George Canguilhem who traced the birth of scientific medicine to the development of objective understandings of the normal and the pathological. The purpose of considering the normativity of urban science in this way is not to discredit it; rather, it is to make a series of issues explicit. Namely, the paper aims to make explicit the way in which ideas regarding the nature of cities are operative in urban science and how these ideas disclose particular forms of urban inquiry and urban futures.

From the Golden Mile to the Millenium Square- A vision for Wellington City from the study of urban morphology and pedestrian movement

Minh Nguyen, WelTec, Te Pukenga

Diane Brand, University of Auckland

Thu Phuong Truong, Victoria University of Wellington

This research project investigates the interaction between urban morphology and pedestrian movement within Wellington City, New Zealand. By analysing current planning strategies, observing the transformation of the inner-city suburbs over a period of ten years, analysing street patterns and block sizes, and periodically counting pedestrian movement, this research aims to contribute to solving the following issues:

Identifying commercially appropriate locations for small and medium businesses.

Shaping the future urban development for Wellington City

This research offers policy makers and planners a positive urban vision for central Wellington by clarifying strategic locations for improving the urban fabric and pedestrian patterns of the city. The Golden Mile and the city CBD represent a morphological and built heritage where Te Aro can develop as the hub for creativity, innovation and a local knowledge-based economy.

City Housing

"It feels smaller now": Exploring the impact of the COVID-19 lockdown on apartment residents and their living environment

Alexandra Kleeman, RMIT University

Sarah Foster,RMIT University

Introduction: The COVID-19 pandemic and associated lockdown restrictions profoundly altered daily life across the world. Australia's national lockdown, beginning in March 2020, lasted for six weeks and was followed by a series of targeted lockdowns initiated by state governments to control outbreaks. The impact of this prolonged exposure to the home environment could be heightened for apartment residents as they typically have smaller, less versatile homes, and may be more vulnerable to virus exposure via shared communal and circulation spaces. This study examined changes in apartment residents' perceptions and experiences of their dwelling before and after the Australian national lockdown.

Methods: Participants consisted of 214 Australian adults, sampled across Melbourne, Sydney and Perth, who completed the HIGH LIFE survey on apartment living between 2017-2019 and a follow-up survey in 2020. Questions focused on residents' perceptions of their dwelling design, apartment living experiences, and personal life events/changes due to the pandemic. Differences between pre- and post-pandemic periods were explored quantitatively (via paired sample t-tests) and qualitatively (via a thematic analysis of residents' lived experiences at follow-up).

Results: Compared to the pre-pandemic period, after the lockdown residents reported poorer perceptions of their apartment design, including the amount/layout of their apartment space and private open space (e.g., balconies or courtyards), and worse crowding issues if sharing their home with others. Increased noise annoyance from indoor and outdoor noise sources was also reported, however disputes with neighbours decreased. The qualitative findings highlighted a complex interplay of personal, social and environmental impacts of the pandemic. Some residents gained a newfound appreciation for their circumstances, while others struggled to adapt, re-evaluated the dwelling attributes that were most important to them, or signalled their intent to relocate.

Conclusions: Findings suggest an increased "dose" of the apartment facilitated by stay-at-home orders negatively influenced residents' perceptions of apartment space and functionality.

Researchers and policymakers have an opportunity to emphasise apartment design strategies that maximise spacious, flexible dwelling layouts with health-promoting elements (e.g., enhanced natural light/ventilation and private open space), and engage the development community in delivering on these outcomes to promote healthy and restorative living environments for apartment residents.

Is living in high-density housing for immigrants a matter of preference or a result of limited housing choices?

George Greiss, Western Sydney University

Awais Piracha,Western Sydney University

Overseas-born residents have been a salient contributor to the development of Australia's urban environment in general and its high-density development, especially in Sydney. Early post-war immigrants from Italian and Greek backgrounds were concentrated in high-density areas in Sydney. While Italian immigrants selected the high-density areas of Leichhardt, Ashfield, Drummoyne and Concord, Greek migrants congregated in the high-density area of Sydney, Marrickville, South Sydney and Botany (Spearritt, 2000).

The pattern of new immigrants settling in high-density areas and apartments continued. By 2001, 49 per cent of all apartments and 62 per cent of all high-rise apartments in high-density areas were occupied by residents born overseas (Burnley, 2006). According to the 2021 Census, overseas-born residents are still heavily concentrated in cities, with 87% per cent of all overseas-born residents located in major urban areas (ABS, 2021), accounting for 56% of all apartment residents in Australia. Asian overseas-born immigrants alone account for 26.1% of all apartment residents in Australia (ABS, 2016).

In some areas of Sydney, the link between apartment living and overseas-born immigrants is significant. For example, Rhodes has 95% of its residents living in apartments, 82% were born overseas, and Wolli Creek has 97% of its residents living in apartments, and 78% were born overseas (Ho, Liu & Eastho 2018). Asian overseas-born immigrants alone accounted for 60% of Rhodes and 52% of the Wolli Creek population (ABS, 2021).

This paper investigates the housing choices of overseas-born immigrants residing in the Sydney metropolitan area and their perspectives on high-density development based on an extensive survey. It highlights the discrepancy between immigrant housing preferences and actual choices and argues that high-density living is not the primary determinant of immigrant housing decisions. As immigrants stay longer in Sydney and their financial situations improve, they tend to gravitate towards urban sprawl housing due to this disparity.

Understanding perceptions of value and risk among recent apartment purchasers in New South Wales

Charlie Gillon, City Futures Research Centre, UNSW Sydney

Hazel Easthope,City Futures Research Centre, UNSW Sydney

Privately developed apartment buildings tend to take full advantage of land use and zoning allowances to maximise size and scale, resulting in the highest apartment yield that a building site can accommodate within the constraints imposed by planning controls and apartment design regulations. This results in limited options for consumers with regard to available building types and apartment designs. Apartment towers and large complexes on a shared podium tend to dominate where planning regulations allow for such density. Much attention has been given to the "missing middle" in NSW but there is little information available about the types of buildings (with regard to scale and form) that apartment purchasers prefer and why.

This paper reports on findings from a NSW-wide survey and follow-up interviews investigating the preferences of apartment purchasers who have purchased an apartment in the last 10 years. The survey and interviews investigated the decision-making, options and choices made by apartment purchasers, with a particular focus on perceptions of value and risk. We examine whether supply is meeting purchaser preferences, considering the preferences of different purchaser types (Easthope and Tice 2011; Randolph and Tice 2013). The paper contributes to understanding the intersection between the planning system and the housing market by providing a consumer-side perspective to long-standing planning debates around "more variegated approaches" to urban renewal in Sydney (see Pinnegar et al. 2020). It also adds to scholarship that seeks to understand the emotional and financial decisions of home purchase and investment (Gillon and Gibson 2018; Cook et al 2013) by considering how consumers weigh up decisions related to apartment building design, amenity, and perceptions of value and risk.

Housing allocative power and inequitable outcomes in Sydney: off-the-plan apartment sales intermediaries and their structurally embedded agency

Rupa Ganguli, University of Sydney

Bill Randolph,University of New South Wales

Hal Pawson, University of New South Wales

Apartment development is complex and risky. Financing and construction are underpinned by off-the-plan exchange of property ownership rights facilitated by specialist real estate agents, or project marketers (PMs). They play a crucial market-matching role in the absence of physically completed dwellings.

Australia's largest city, Sydney, witnessed a "boom-bust" apartment market cycle in the 2010 - 2020 decade following the Global Financial Crisis. In parallel has been a rise in private investor-landlord ownership of this highly "financialised" housing asset class. A sign of market failure has been structural defects in new apartment buildings, resulting in government intervention and regulatory change to improve consumer protection. Yet, the connection between the role of PMs in enabling apartment sales and production in a "boom" and investor-led housing commodification remains unexplored.

Historically, agency based institutional theories have emphasised the power of market "gatekeepers" to shape access to housing. Structure-based approaches, stress the allocative power of property market institutions through historically embedded practices, roles, goals, and adaptability. This research investigates the embeddedness of PM actions and relations within an institutional "structure", using a blended institutional theory-based conceptual model. It is proposed that a structure- agency interaction empowers them to influence housing market outcomes. Their ability to evolve over a market cycle and with technological disruption of the industry also makes them key "institutions", or "urban managers".

A mixed-methods approach draws upon interviews with industry professionals involved in new apartment sales in the peak (2012-17) and downturn (2018-2020). This is supplemented by secondary data to chart the sales industry structure during the "boom".

A typology of "players" emerges, each communicating their superior knowledge, experience, and social networks, collectively giving them agency to affect who buys what and where. Organisations associated with a large quantum of sales, by volume and value, have vertically integrated businesses that can sell development land, source construction and mortgage

financing, lease and/or manage investor-owned properties. During a "boom", a rising apartment price cycle helps offset the high commissions paid to channel agents who help maximise pre-sales volumes, especially to investor purchasers. These agents are also "tech-mediaries" adopting technology to scale up sales across geographic boundaries. In the "bust" more sophisticated marketing tools are deemed essential to prop up sales to owner-occupiers, particularly "cashed up downsizers". By adapting to shifting market contexts, PMs become institutionalised while the engines of production continue churning in cities, where equitable access to housing continues to be a challenge.

Making money in the City: Value creation in the Sydney apartment market

Bill Randolph, City Futures UNSW

Reg Wade,City Futures UNSW

Laurence Troy, USyd AHURI Research Centre

Pinnegar, Simon, City Futures UNSW

The recent apartment boom in Australian cities resulted from a confluence of a range of factors which in little more than a decade has radically restructured significant parts of the Australian city. While apartment development is not a new phenomenon, the scale of the recent density boom has been unprecedented in Australia. Sydney has been at the epicentre of this density revolution, however high-rise apartment developments are now commonplace across many urban housing markets in Australia.

The apartment boom was underpinned by a search for profit extraction from the development process. In the context of constrained public financing, there has been a renewed interest in the issue of how the value created by development might be better captured for public benefit. However, little is known about the scale of the value uplift that the development process actually generates or how this is distributed across different housing submarkets.

This paper will present a novel analysis that quantifies the value created from a sample of almost 2000 apartment buildings developed across the Sydney region during the 2009 to 2019 period. This is complemented by the analysis of a sub-sample of 30 apartment schemes which explores the costs and revenue outcomes in more detail. This analysis employs a feasibility modelling approach that uses an integrated geo-located dataset covering land sales, development approvals, strata registrations and apartment sales for each building.

The paper will argue that the planning system acts as the "value switching trigger" that permits value to be generated through the development approval process. The planning approval system therefore represents an essential component of the value creation process. Without a development approval, the potential for value extraction cannot be realised. Hence the intense focus on the planning system by the development industry as their principal target for policy reform. We argue that this act of public decision making should not simply benefit private profit making but can also be sensibly shared for public good. In the process, the value to be extracted from the land development could be more equitably distributed.

High hopes: The impact of apartment design policy on resident's experience of apartment living and well-being

Sarah Foster, RMIT University

Paula Hooper,University of Western Australia

Alexandra Kleeman, RMIT University

Background: Comprehensive apartment design policies have been legislated by Australian state governments to address concerns about poor apartment design. Effective implementation of these policies promises to improve design outcomes and create apartments conducive to good health and wellbeing. However, there is little policy-specific health evidence to shape the content of design guidelines and advocate for the inclusion or protection of key health-promoting standards. The HIGH LIFE Study was established to evaluate the implementation of design requirements from three State Government design policies (i.e., SEPP65 in NSW, SPP7.3 in WA, Better Apartment Design Standards (BADS) in VIC) and assess their impact on residents' health and wellbeing.

Methods: Apartment complexes (n=114, built 2006-2016) were sampled from Sydney, Perth and Melbourne. Building plans and elevations were used to measure apartments (n=10,533) and buildings (n=172) for their implementation of 96 quantifiable policy-specific requirements. Residents (n=1326) completed a self-report survey on their apartment design and health. Building-level scores benchmarked the uptake of design requirements, which were compared by city and area-level disadvantage. Multi-level models examined associations between increased implementation of requirements, residents' perceptions of apartment design and wellbeing; and cluster analysis identified the combination of design requirements associated with positive mental wellbeing.

Findings: Sydney and Perth buildings implemented 60% and 55% of all measured requirements, respectively, whereas Melbourne implemented 43% (p = 0.000). There was little evidence of a socioeconomic gradient in Sydney and Melbourne, however Perth buildings in advantaged areas implemented more requirements. Residents in apartments with greater implementation of requirements for solar and daylight, indoor space, private outdoor space, communal space and parking had more positive perceptions of these attributes (all p<0.05). Finally, residents in "high policy performance buildings", characterised by a greater implementation of 29 specific

requirements, had significantly higher (+1Â·96 points) mental wellbeing compared with those in "low policy performance buildings."

Conclusion: Sydney buildings were developed under a comprehensive policy (SEPP65) and implemented most requirements, whereas Perth and Melbourne buildings pre-dated the introduction of detailed design policies. New policies in WA (SPP7.3 in 2019) and Victoria (BADS in 2017) should improve apartment design in these cities and address the area-level disparities identified in Perth.   However, BADS contains fewer design requirements (i.e., 11/29 characteristics of "high policy performance buildings") suggesting its current settings may be insufficient to bring about positive wellbeing. The study results can be used to support the adoption or retention of specific design requirements in future policy reviews.

Can experimental governance reshape housing practice in Australia?

Laura Goh, The University of Sydney

Frustration at the stagnation of an already "broken" housing system has created an environment where experimentation and "innovation" are seen as pathways to solving entrenched policy problems. In this context, "experimental governance programs" have gained popularity across government agencies as a method for developing new solutions to longstanding difficulties by encouraging or enabling "innovation". The Australian states have often sought solutions to longstanding housing problems through often term and "innovative" programs. However, some question whether short term "innovative" housing programs can deliver lasting change, or see claims about "innovation" as ways to distract from system level policy failure.

Appetite for innovation and experimental methods in the housing space can be seen across all three levels of government in Australia, with the National Government recognition of role of innovation and digital disruption in Australia was highlighted by the release of the Smart Cities Plan in 2016 and local government programs such as the Alternative Housing Ideas Challenge established by the City of Sydney Council. However, it is at the state level where the impact of experimental governance is most explicit, with both state housing policies and state-led programs, such as the Demonstration Housing Project in the Australian Capital Territory and the Future Homes Project in Victoria, exhibiting experimental features.

Experimentation is not a new concept in the housing space but what makes this new version of housing experiments unique is their status as a new method of policy production; the idea of "hacking" established practice as a precursor to reform (Maalsen 2021). This paper utilises comparative case study analysis of three current housing experiments in Australia, revealing unexpected barriers to moving from experimental approaches to genuine policy reform. These barriers include precarity of projects, unclear pathways for program scaling, and financial constraints. In addition, the resulting complications of formal policy review unexpectedly intersecting with experimental governance programs, where the government tries to "hack" its own planning regulations, are also a key finding from this paper. Overall, the paper highlights some promise in the recent willingness of state and local governments to disrupt established housing and planning practice, but entrenched obstacles to lasting change remain.

Urban citizenship and the spatial reordering of the precarious city

Laurence Troy, University of Sydney

Bill Randolph,UNSW Sydney

Rupa Ganguli, University of Sydney

Security in housing has long been considered a central feature of the various constructions of post-WW2 welfare state models, with recent debates centring on housing assets as a contingent feature of welfare outcomes (Doling & Ronald 2010). In Australia, this was supported by a long-standing commitment across classes to deliver secure employment and high wages in return for a low taxing state. Gleeson (2006) argued commitment to these values of income, justice, employment and security found their expression in cities, delivering what he termed the Australian Suburban Settlement. The demise of this compact since the 1980s has seen the rise of what Standing (2014) refers to as the "precariat", a group in "non-standard" insecure, flexible, and lower paying employment for segments of the workforce, particularly the young. Simultaneously, we are witnessing generational fractures in housing pathways, epitomised by the emergence of "generation rent" and asset-based class regimes where access to family resources has become a defining cleavage. This twin breakdown in home-ownership and income security has deep implications for patterns of urban settlement, and ideas of social citizenship upon which they are built.

However, the impact of these changes is contingent, complex, generationally specific and locationally varied. In recognition of the complex ways in which housing is embedded in ideas of social citizenship delivered through various welfare state models in the post-war period, we seek to explore contemporary housing experiences of the "Millennial" generation through the lens of "precarity". Specifically, we are interested in the concept of precarity as an emergent condition being experienced by this group in many advanced economies through four distinctive 'realms' -employment, housing, household and spatial- and how these coalesce within cities to produce the precarious city. The first part of the paper will outline a conceptual framework to understand the precarious city. The second part will draw on a principal component analysis of census-based measures of precarity across Sydney and Melbourne and reveals a variety of millennial sub-groups reflecting different experiences and impacts of these four dimensions of precarity, each with distinctive spatial outcomes. Third, we will explore the experiences of millennials across Sydney and Melbourne as they navigate through their housing and employment pathways. Finally, we draw together these four "realms of precarity" into a

common urban social citizenship framework and explore the implications for understanding contemporary urban transitions.

Will millennial key workers leave the city? Housing affordability, spatial inequality and its implications

Catherine Gilbert, The University of Sydney

Zahra Nasreen,The University of Sydney

Nicole Gurran, The University of Sydney

In global cities internationally, housing affordability challenges are escalating up the income spectrum and manifesting in new socio-spatial and intergenerational inequalities amongst urban residents (Wetzstein 2017; Haffner and Hulse 2021). These issues sit within the domain of urban policy (Haffner and Hulse 2021). However, limited empirical and spatial evidence of how different cohorts of low- and moderate-income earners are being impacted by, and are responding to, these challenges, means the implications for cities are unclear. In this paper, we contribute to addressing this gap by investigating the impacts of declining housing affordability on the housing situations and residential locations of key workers across Greater Sydney. Performing essential public services that require physical presence, the spatial nexus between home and work is particularly important for key workers. But with low to moderate incomes, they can struggle to afford housing in expensive housing market areas, exacerbating recruitment and retention challenges (Gilbert et al 2021).

Focusing on this important demographic cohort, with particular attention to early-career key workers, we (1) examine contemporary geographic patterns of rental and purchase affordability; and (2) ask whether and how the tenure and suitability of key workers' housing and their residential location decisions have changed over a decade (2011-2021) of significant housing market inflation. We use custom and non-custom ABS data for three Census periods in our statistical and spatial analysis through GIS.

We find that housing affordability is a metropolitan-wide problem, but is most acute in inner and middle ring areas where lower-income and millennial key workers are increasingly renting, living in housing stress and living in overcrowded homes. We also find evidence of a "hollowing out" effect, with key workers residing in and moving to outer suburbs and ex-urban locations, despite jobs continuing to be concentrated in more central areas. Our findings contribute to a more nuanced understanding of the nature and implications of the new spatial inequalities emerging within financialised urban housing systems, while also providing empirical evidence to support policy intervention.

Managing increasing summer heat extremes in city housing in Aotearoa

Kimberley O'Sullivan, University of Otago, Wellington

Rachel Dohig,University of Otago, Wellington

Terence Jiang, University of Otago, Wellington

Nevil Pierse, University of Otago Wellington

Erana Manu, University of Otago Wellington / PÅ«horo STEMM Academy

Amber Logan-Riley, University of Otago Wellington

Summer heat extremes, with more frequent and severe heat events, are increasing in Australasia and worldwide. Maintaining comfortably cool and healthy indoor temperatures at home in summer to manage heat health risks is a growing concern. As climate warming continues, cooling practices may be adapted to maintain wellbeing during summer heat through increasingly available active cooling strategies, including the use of heat pump air conditioning. Aotearoa NZ has widespread low residential dwelling thermal quality, with private rental sector dwellings being of the poorest quality. Households already experiencing poor-quality housing and energy poverty that leads to cold indoor temperature exposure in the winter months with associated health burdens, are also most at risk of indoor overheating. This has important implications for equity and future carbon emissions.

We describe our research exploring cooling practices and reported wellbeing in some of Aotearoa's warmest regions. We present results from a mixed mode survey undertaken in summer 2021/2022 finding that over half of our respondents reported difficulty keeping cool at home during summer. We share initial results of online qualitative surveys focussing on the experiences of summer heat and keeping cool at home by tāngata whaikaha or disabled people, and parents and caregivers of tamariki- two groups that typically experience higher rates of energy poverty due to increased time spent at home. Our findings indicate a growing risk to population health and wellbeing from indoor overheating at home in Aotearoa. As with our earlier research exploring energy poverty and exposure to cold indoor temperatures, we find that Māori report higher rates of summer heat exposure and negative health and wellbeing outcomes from indoor overheating. The results suggest that improved housing thermal performance combined with behavioural change will be required to avoid reliance on active cooling solutions that will further contribute to emissions. Current housing and energy injustices

must be addressed so that energy poverty is not entrenched as cities improve housing resilience and undergo energy transition when responding and adapting to climate change.

Future Housing in Vanuatu: Exploring contextually appropriate housing through design research

Wendy Christie, Monash University- Art, Design and Architecture

Rapid urbanisation in the Pacific Islands region has created a demand for housing and infrastructure in urban and peri-urban areas, leading to overcrowding and poor living conditions. Vanuatu has one of the highest urban growth rates in the region, and Port Vila, the capital, is characterised by unsafe makeshift dwellings. Poor housing also extends to rural and remote areas influenced by the proliferation of urban building practices.

The absence of a national housing policy and limited residential building control reveals that there needs to be a cohesive strategy to improve housing in Vanuatu. Housing projects in Vanuatu are approached haphazardly without guiding design-build frameworks. Projects often stem from a myopic focus on structural adequacy that neglects cultural and environmental context, inevitably failing to provide appropriate housing propositions.

This research explores how an interactive design process prioritising an indigenous ni-Vanuatu perspective can contribute to appropriate, long-term housing in Vanuatu. Research through design reveals complexities and interrelationships between existing housing conditions, residents' aspirations, issues with typically built outcomes, and the genius loci. These are overlayed with spatial observations, resident experiences and design processes developed through participant engagement using narrative threads to highlight residents' voices and perceptions.

A design study activity is central to my practice-based PhD, which involves working with families via an explorative sketch design process. Within this activity exists the traditional roles of the architect and the client, involving detailed site documentation, briefing and an iterative design process with each family. The fieldwork is in three regions, demonstrating urban, peri-urban, and rural island conditions. The design study activity includes multi-scalar design analysis and documentation of the engagement process. The tailored design proposals are expected to serve as case studies informing guidelines for future housing in Vanuatu for disaster and long-term applications. It will also create a precedent of place-specific design research for other Pacific Island countries.

Through combining local knowledge with place-specific multi-scalar design explorations, the research will speculate on opportunities for contextually appropriate housing design for Vanuatu. A summary of the design case studies will be presented to illustrate the findings from the design research process.

Redefining Home: Exploring Informal Housing Arrangements and Community Action among Filipino migrant Students in Sydney

Aireen Grace Andal, Macquarie University

This paper explores informal housing arrangements among migrant students in Sydney. Such informal arrangements have emerged as a response to the housing precarity faced by international students, a phenomenon that has become increasingly common in the face of the broader housing issues experienced by residents and governments throughout Australian cities.

Through observations of the lived experiences of migrant students, the paper discusses the ways in which such informal arrangements are able to provide a sense of security, stability and belonging, whilst also challenging the dominant market-oriented frameworks that are shaping urban housing outcomes. Specifically, the paper argues that the informal arrangements fostered by the Filipino community in Blacktown City Council offer a form of communal housing that not only eases the financial burden on international students, but also provides a supportive environment in which students are able to thrive academically and socially.

The paper contributes to the broader debates surrounding housing and social justice in cities by offering a unique perspective on the ways in which communities are redefining what it means to make a home in the city. Rather than relying on top-down solutions that prioritise market outcomes, the paper argues that bottom-up processes are essential to producing transformative housing outcomes that promote social justice and a sense of belonging for all city dwellers.

Overall, this paper contributes to the ongoing conversations surrounding contemporary urban housing issues, processes and solutions in Australian cities. It highlights the need to consider alternative housing arrangements that challenge dominant neoliberal frameworks and prioritise community action and indigenous housing aspirations and practices.

Informal Housing Submarkets and Socio-Spatial Inequalities in Australian Cities

Zahra Nasreen, The University of Sydney

Nicole Gurran, The University of Sydney

Pranita Shrestha, The University of Sydney

Despite ongoing rises in the value of residential real estate; many lower income earners in cities and regions throughout the world are unable to access appropriate housing. Reflecting affordability barriers, discrimination, and a chronic undersupply of social housing, these marginalised groups are increasingly dependent on a variety of precarious and informal arrangements to meet basic shelter needs (Banks et al., 2020). Although the submarket contours of formal housing markets are well known- divided by the owning/renting tenure binary; and differentiated by preferences and trade-offs around dwelling attributes, cost and geographic location; informal rental markets are both poorly understood and largely neglected by housing policy makers and planners.

Focussing on three Australian cities which have seen intense housing affordability pressures over the past decades (Sydney, Melbourne and Brisbane), this paper draws on online rental listings data (n=19,410) to answer the following questions: what are the geographies, typologies and scale of informal housing practices in Australian cities? To what extent are housing submarkets visible within the informal rental sector? And how do informal housing submarkets reflect particular socio-economic or socio-spatial characteristics, relative to Australia's wider private rental sector? Data was collected via web-scraping in August 2021 from three pre-eminent different Australian housing platforms: realestate.com.au, gumtree.com.au, and flatmates.com.au, and examined against Australian Bureau of Statistics (census) and real estate market data, using critical analyses of descriptive statistics, spatial autocorrelation, regression modelling and clustering techniques.

The paper reveals geographic concentrations of informal housing which correspond to distinct rental submarkets (using housing submarket indicators advanced by the established literature (Rae, 2015; Keskin and Watkins, 2016); corresponding with cost, tenure arrangements, dwelling type, spatial attributes such as proximity to education or employment centres, and the availability of neighbourhood amenities. However, although these characteristics echo those of the formal housing sub-markets, within the informal housing sector compromises between residential dwelling type or tenure tend to reflect trade-offs between basic features (privacy, security, building safety) and or precarious tenure arrangements. Understanding these informal

housing submarkets and their spatial geography across Australia's major cities reveals how deep socio-economic disparities are expressed and exacerbated by housing wealth and inequality. The findings highlight that digital platforms have facilitated the previously non-marketised informal housing practices into informal rental markets, but these platform also facilitate reproducing existing socio-spatial inequalities among urban residents (Boeing, 2020). The research contributes to planning scholarship and practice by explaining key drivers, related typologies, associated risks and regulatory challenges presented by informal housing practices in Australian cities.

Sharing Housing and Sharing Risk: Rental Regulations and Non-Normative Households

Zoë *Goodall, Centre for Urban Transitions, Swinburne University of Technology*

Wendy Stone, Centre for Urban Transitions, Swinburne University of Technology

Kay Cook, Department of Social Sciences, Swinburne University of Technology

Shared housing in the private rental sector (PRS) is becoming more significant across many countries, in response to both housing affordability pressures and people's desires for alternative ways of making home. However, research suggests that shared housing may present challenges beyond, or different to, those experienced by people living in other housing occupancy arrangements. While shared housing in the PRS may be becoming increasingly significant, it is non-normative in relation to the nuclear family household. The question is whether housing policies and regulations based on normative understandings of households are equipped to effectively support shared housing renters. Through a case study of Australia, which operates on a "consumer protection" model of rental regulation, we explore how shared housing is represented in policy and the implications for shared housing renters' navigation of the renting experience. The paper examines how the consumer protection model accommodates "consumers" in shared housing, and how the regulation frames and responds to risks that may be experienced in shared housing. We conduct a critical discourse analysis of consumer-oriented tenancy information published by Australian state and territory governments, and identify explicit or implicit risks in the text that may be experienced by shared housing renters. Findings indicate that risks in relation to finance, eviction, and disputes are variously not acknowledged within the text or responded to with warning, guidance, or stated inability to help. The findings are discussed in relation to PRS reform in Australia and other countries where the nuclear family household is the policy norm. As housing configurations transform further in response to both cost-of-living pressures and changing life trajectories, we contend that there is need for housing policy to take account of a diversity of household forms and experiences, and accommodate those who make home in alternative ways.

Regulating for or against informal housing? Planners' perspectives from Australia

Pranita Shrestha, The University of Sydney

Nicole Gurran,The University of Sydney

Zahra Nasreen, The University of Sydney

Gilbert, Catherine, The University of Sydney

Informal housing options such as secondary dwellings are increasingly seen as a potential source of low-cost, affordable rental supply. Often prevented by restrictive residential zones, unauthorised garage conversions or "granny flats" have emerged as important sources of lower cost rental supply in high value housing markets, and efforts to regulate their production are becoming more widespread. More broadly, interest in secondary dwellings as a form of low-cost rental housing can be understood within the context of neoliberal policy settings including the retreat of the welfare state and an emphasis on "market solutions" to policy problems. Within this context, not only are states reluctant to provide direct support for low-income earners through public housing or additional rental subsidy; they must also actively "roll back" regulations seen to impede market activity.

This paper examines state planning strategies in Australia which have sought to both remove restrictions preventing secondary dwellings in residential areas and encourages the establishment of a new market in secondary dwelling production. Our focus is the perspectives of local planners in the state of NSW, where state planning policy has sought to override restrictive local zoning controls to enable secondary dwellings as a source of lower cost rental supply since 2009. Through interviews with more than 25 local planners, we examine perspectives on (a) regulatory strategies for enabling or constraining secondary dwelling production; (b) trade-offs between housing quality, costs, and residential neighbourhood impacts; and (c) wider implications for affordable rental supply. We also examine the geographic spread of secondary dwelling production over a decade and review recent real estate listings to determine the nature and cost of such housing as a source of low-cost rental accommodation in the market.

Findings show that although secondary dwellings can potentially be an important source of lower cost rental supply in high value housing markets such as Sydney; local planners are concerned about the impact on amenities and dwelling quality produced. They also expressed

concern about informally rented and/or illegally constructed secondary dwellings giving rise to a new, shadow rental market. Overall, the study sheds light on the conditions in which regulation can support or inhibit forms of secondary dwelling production, and the potential positive outcomes arising from more flexible approaches to residential zoning and development control. However, the study also highlights the limitations and risks associated with formalising secondary dwellings as a principal strategy for affordable rental supply within high value housing markets.

Understanding trends of informal housing supply and demand in Australian cities through web scraping, data analysis and visualisation

Fuad Yasin Huda, Monash University, Department of Civil Engineering, Public Transport Research Group

Sanaz Nikfalazar,Monash University, Faculty of Monash Art Design & Architecture, School of Urban Planning and Design

Md. Kamruzzaman, Monash University, Faculty of Monash Art Design & Architecture, School of Urban Planning and Design

Sin Yee Koh, Monash University Malaysia, School of Arts and Social Sciences; Institute of Asian Studies, Universiti Brunei Darussalam

Dharmalingam Arunachalam,. Monash University, Faculty of Arts, School of Social Sciences.

Lukose, Dickson. Monash University, Monash Data Future Institute

The difficulty in identifying and documenting informal housing practices has been recognized as a major challenge to devise appropriate policy responses for the sector. Anecdotal and sporadic evidence suggests a growing trend of informal housing practices in Australia. However, little is known about their spatial patterns and temporal trends to inform population-, place- and time-based interventions. This study is a first attempt to document informal housing practices across Australian cities both spatially and temporally using big data. Through web scraping techniques, the study gathered data on informal housing activity from 9 websites (e.g. Flatmates.com.au, Gumtree.com.au, flatmatefinders.com.au) over twelve months (October 2021- September 2022) to monitor both demand and supply trends. Subsequently, more spatially disaggregated data at the postcode level were scraped from Flatmates.com.au from June to September 2022 to identify the patterns and extent of housing informality. Results show that: a) there is a big gap between demand for (103,249) and supply of (14,447) informal housing on any given week across Australia; b) the demand for informal housing increases in January (by 17%) and February (by 11%) perhaps due to the Christmas and end of year public holidays and the Australian government's announcement regarding the re-opening of international borders after years of restrictions during the pandemic; c) the most demand for informal housing was found to be in postcodes 4218 (Broadbeach, Gold Coast), 2010 (Surry Hills, NSW), 4220 (Burleigh Heads, Gold Coast) and 4101 (West End, Highgate Hill and South Bank, Brisbane), that is in contrast to the suburbs with a relatively higher level of informal

housing supply (e.g. 2026 (Tamarama, NSW), 4215 (Southport, QLD), 3168 (Clayton, VIC)), suggesting a mismatch between supply and demand; and d) social and demographic characteristics influence preferred accommodation types where the highest demand is for rooms in existing shared houses and studio flats. The study's findings unlock the potential to devise affordable housing policy to tackle the issue of informal housing in Australia and serve as a benchmark to monitor policy effectiveness over time.

Below the Radar, Documenting Aotearoa New Zealand emerging informal housing patterns

Mark Southcombe, Victoria University of Wellington

Increasing financial inequality in Aotearoa New Zealand has disenfranchised many people and families from easy access to good quality housing. Groups of people and individuals have in recent years found they are in a poverty trap where most of their income is required for housing, and there is a deficit in their day to day costs to survive. This leads to indebtedness and often to the sourcing of alternative more financial affordable housing solutions to be able to change their prospects and live within available income. Examples of alternative housing include a range of innovative stopgap housing solutions such as sleepouts, garages, secondary housing units, portable and relocatable buildings, recreational vehicles, caravans and tiny homes, permanently occupied campgrounds, and structures on marginal land subject to hazards, and informal unconsented housing structures ranging from tents, to encampments and groups of structures and high density shared marae style accommodation. These alternative housing solutions operate formally and informally below the radar and in the margins of legal and planning approvals. Some have recognised planning approvals, others do not require consents depending on exemptions and planning loopholes, others are not considered to be buildings and so do not need to meet housing standards or gain official approvals. A third group of houses is not designed or constructed to meet planning and housing standards that are increasingly expensive and out of reach for some of the community. Local and governmental authorities are caught between the practicality and illegality of many of these solutions and tend to turn a blind eye to housing activity in this sector. To do otherwise is problematic to enforce, and would require the local authorities who enforce to face lack of alternative housing available for many of the vulnerable working poor in our society.

This paper documents a series of new Aotearoa New Zealand bottom-up, self-help housing solutions in relation to their site planning and environmental qualities towards identifying emerging housing patterns, and relationship to planning rules, regulations and standards. Because of the vulnerability of the occupants and their serious and often urgent housing need the documentation occurs anonymously. It is compiled through a systematic survey of an anonymous selected housing community, where qualities of this bottom up housing sector are evident. The paper further considers medium term implications of this new, partially informal, below the radar housing sector and its housing patterns.

Housing Equity: Care and Scale in the Digitalisation of Public Engagement

Benai Pham, University of Sydney

This research paper investigates the digitalisation of statutory public consultations for new housing schemes and local housing plans. The dominant logic driving digitalisation is that digital consultation technologies will increase democratic engagement and, in effect, produce generative care, particularly pertinent to planners and developers addressing the housing crisis. However, the contingent nature of public consultations obstructs the ability to scale, because scale requires uniformity and predictability. The paper argues that it is difficult to scale public engagement because care and everything that comes with it (for example, "trust and transparency") are moral questions and not objects that are neatly measurable. Based on interviews with key industry partners and participant-observations of industry events and public consultations, the author theorises the structural limitations of "wide-scale" digital engagement and proposes a digital engagement strategy that focuses more on care than scale.

Planning for Community in Public Housing in North America and Australasia

Derick Anderson, University of Illinois Chicago

Planning for Community in Public Housing in North America and Australasia

As public housing approaches its 100th anniversary in globally, communities and governments at all levels face the daunting task of housing the least advantaged people in their jurisdictions in the context of dwindling funding for social programs, a call for more representative government resources, deteriorating housing stock, rising construction costs, and the global climate emergency amongst other issues.

This dissertation research looks at the tenant relocation and site return processes of four public housing developments in Toronto, Canada, and Chicago, United States. Focused on how local decision-making affects outcomes in and around these communities, I work to understand how the tenure structure and the interaction between the decision-making bodies and public housing communities influence the redevelopment outcomes in the context of national policy agendas.

This study will use a comparative case study approach to understand how these two cities handled contentious public housing redevelopments when their respective national governments moved to privatize their public housing and transferred the control of their sites to local authorities or private actors. This case study offers lessons on what Australasian governments can learn and avoid from the North American experience.

Overcoming housing challenges in regional WA: the case of the North Midlands

Francesca Perugia, Curtin University

Mohammad Swapan, Curtin University

The covid-19 pandemic has put regional housing back on the research and policy agenda relative to population growth (internal migration) and regional investment. However, the conversation is far from simple; migration phenomena and investment patterns are not homogenous. Generalising, what has been recorded in regional Australia is either growth in population in areas close to major metropolitan centres and coastal tourist locations and loss in inland and remote towns (Beer, Crommelin et al. 2022). The North Midlands region (in WA's Mid West) is an example of the latter. A relative lack of social, educational and health services and broad housing market failure have negatively impacted the capacity of the region to attract and retain the population (InfrastructureWA 2022). Against this backdrop, the region is currently drawing public and private investment- with mining, gas and alternative energy projects in the pipeline for delivery. Whilst economic growth is welcomed, the impacts of this growth on small communities that are already constrained in terms of housing and service delivery will need to be managed. This presentation will discuss the outcome of the engagement with local stakeholders and outline the implication of these findings for developing local housing policy and delivery mechanisms using a case study approach.

Metropolitan Brutopianscapes: Mapping the Nature and Extent of (Sub)Urban Blendscapes in Metropolitan Australia

Paul Maginn, University of Western Australia

Australia is a largely metropolitan society. Approximately 80% of the population live in the five major metropolitan regions of Adelaide, Brisbane, Melbourne, Perth and Sydney. These metropolitan regions comprise a dynamic constellation of "urban" and "suburban" landscapes. In spatial and morphological terms, Australian metropolitan regions are primarily characterised by a dense urban core surrounded by an ocean of low density residential suburbs. Strategic metropolitan plans over the last two decades have sought to manage and stem "suburban sprawl" via the promotion of transit oriented developments, activity centres and densification. This has, in part, resulted in a proliferation of apartment developments, within and across major capital city LGAs, especially Melbourne and Sydney, as well as middle-ring suburbs along transport corridors and even in some outer-ring suburbs across metropolitan regions. Despite these trends metropolitan regions have continued to grow outwards - the Perth metropolitan region now extends 150kms along the Western Australian coastline making it one of the longest cities in the world. The socio-spatial evolution of metropolitan Australia has been underscored by a symbiotic relationship between the urban and the suburban that has given rise to what Maginn and Phelps (2023) refer to as a (sub)urban blendscape. This paper considers three key inter-related issues: (i) the role of metropolitan strategic plans in managing (sub)urban development and growth; (ii) the concept of (sub)urban symbiosis and its role in creating (sub)urban blendscapes; and, (iii) an empirical analysis of the geographies and typologies of (sub)urban blendscapes that prevail within and across Australia's major metropolitan regions.

Urban planning myths: why regulations are not responsible for high housing costs

Cameron Murray, Post-doctoral Research Fellow, School of Architecture, Design and Planning, University of Sydney

Tim Helm, Research and Policy Director, Prosper Australia

Town planning regulations- density limits, heritage rules, environmental protections- are often blamed for high house prices. This is an "urban myth" with no grounding in economics. Summarising a decade of research in the economics of new housing supply, this talk will explain why the common assumption about planning is wrong, and situate this myth in the neoliberal tradition of deregulation driven by vested interests.

Earthquake damage to housing in Christchurch and the subsequent recovery effort

Harvey Perkins, The University of Auckland

This paper examines earthquake damage to housing in Christchurch and the subsequent recovery effort since 2010, producing an array of outcomes in the central city, suburbs, and satellite towns. Theoretically, the paper relies on ideas associated with urban planning and residential real estate development practices. It begins with the observation that most of the housing stock in the Christchurch urban region was in some way affected by the earthquakes. The paper then discusses the complex and protracted responses in the housing recovery from house owners, renters, the insurance sector, central and local government politicians and planners, residential property developers, their financiers and the building industry. It shows also how the recovery was and continues to be influenced by arterial transport infrastructure development planned before the earthquakes and built during the recovery period. This recovery process intensified the central city and parts of the suburbs residentially, but in an illustration of path dependency, also significantly increased a long-established tendency to urban sprawl on the margins of the Christchurch region.

Using Spatial Analysis and AI to Identify Infill Potential in South East Queensland Australia

Heather Shearer, Griffith University Cities Research Institute

Paul Burton,Cities Research Institute Griffith University

Australia has a highly urbanised population located predominantly in coastal towns and cities, and increasingly vulnerable to the impacts of climate change. Moreover, Australia is ranked consistently as having one of the most unaffordable housing markets in the OECD, with large, expensive houses and high levels of urban sprawl. Our ongoing research project investigates innovative ways to introduce greater equity and diversity into Australian housing markets and systems, while considering the future challenges posed by climate change. The research focusses on South East Queensland (SEQ), including some of the fastest growing suburbs in Australia which are vulnerable to multiple climate impacts, such as bushfire, flooding, cyclones and storm surges.

An important element of increasing the diversity of housing, and especially affordable housing, lies in enabling smaller scale dwellings within established suburbs. Our initial empirical research set out to calculate the proportion of residential zoned lots within the urban footprint (as defined by the South East Queensland Regional Plan) with sufficient space for small to medium scale infill, such as ancillary dwellings, granny flats, and tiny houses.

Using spatial analysis tools such as ArcGIS Pro, Google Earth Engine, satellite imagery and AI deep learning models, we calculated the total coverage of built infrastructure on each lot and estimated how much remaining land was suitable for an additional small dwelling. We then used environmental overlays, bushfire and flood risk mapping and slope analysis to further refine which lots were suitable for further infill. Finally, we mapped demographic changes between the 2016 and 2021 Census in relevant areas and included recent results from a survey of over 200 Australian LGAs on their planning policies regulating tiny houses etc.

Our results suggest there is significant physical capacity for accommodating new, small scale infill development in established suburbs that could benefit from proximity to existing services and community infrastructure, as well as reducing development pressures on peri-urban greenfield sites. The challenge for planners is manage this opportunity in the face of local opposition from well-organised groups who want to "save our suburbs". We conclude by comparing and contrasting this Australian experience with that of Auckland's Unitary Plan designed, in part, to facilitate and expedite the provision of low to medium density infill.

Heritage and Housing - current politics of planning in Wellington city, New Zealand

Richard Norman, Inner City Wellington, LiveWellington

Pre 1930s housing in Wellington's oldest suburbs has been protected since the 1990s by a requirement for major changes to notified and to receive formal consent from the Wellington City Council. This rule emerged from significant loss of older buildings from the 1960s from motorway development and limited heritage protection. During the review of Wellington's District Plan in 2021 and 2022, a small majority of mostly Labour and Green councillors voted to reduce heritage protection by 75 percent or from 4000 houses to about 1000. Politically this change has been advocated at local and central government levels to increase affordable housing close to existing amenities. Campaigners have polarised debate by portraying house owners as Nimbys (not in my backyard) and change advocates as Yimbys (yes in my backyard). This paper will review the risks of a planning strategy of "upzone and hope" for a townscape is dominated by housing built from New Zealand hardwood trees milled before 1930.

An alternative to laissez faire planning draws from Mariana Mazzucato (2021) and is based on that author's experience as senior lecturer in public management at Victoria University of Wellington (until 2020) and as a trustee for St Peter's Church, Willis Street Wellington. The church worked with a developer to create 150 apartments, church and community amenities and a green space for public use. Mazzucato advocates that public sector organisations take a more active role in complex issues such as housing affordability. She challenges the conventional wisdom of the "New Public Management" of the 1980s and 1990s that Governments can't deliver and should seek to "steer, not row". The paper argues that local and central government agencies need to redevelop capabilities which have largely been outsourced to consultants. Rather than laissez faire upzoning, affordable housing needs coordinated action across local and central government functions to create infrastructure, ensure rates are set to encourage development, not land-banking and that planning design guides help ensure future liveability. Wellington's central city area of Te Aro had about 15,000 residents in 1910, when it was thought to be a slum. By 1990 it has almost no residents, but building conversions and new apartments mean it again has more than 15,000 residents. Focused, active public services and place-based planning is needed to avoid a high-rise slum of the future, while preserving heritage.

Mazzucato, Mariana. Mission Economy. A moon-shot guide to changing capitalism. Allen Lane, London, 2021

Understanding the housing gap: Tracing the disconnect between community expectations, planning policy and delivery of infill housing in Greater Adelaide

Madeleine Parkyn, University of South Australia

Urban densification has been adopted in Australia as the appropriate planning response to increased population, changing patterns in household composition and rising house prices. Current planning strategies across the country call for infill housing as the means of achieving densification targets. In Adelaide, a city with traditionally low-density housing stock and a cultural aspiration for a detached house, there is community resistance to densification efforts. A challenge lies in implementing infill housing in a way that is acceptable to the community, because for urban densification to succeed more people will need to choose to live in and around infill housing.

Existing research has identified there is a gap between the houses being built and the houses the community wants. This research aims to investigate the disconnect between urban planning and community expectations and provide a holistic understanding of the interactions between residents, planning policy, key stakeholders and built form.

The research has been approached using a single, naturalistic case study methodology. Greater Adelaide has been selected as the case as it provides a unique opportunity for a longitudinal study due to the of the timing of the research around a state-wide change in planning policy.

The transition to urban densification is complex and requires representation, analysis and comparison from multiple perspectives. As such the research draws on three data sets. A thematic analysis of written submissions received from residents during the planning reform identifies key attitudes and traces the process and outcomes of community engagement. Interviews with stakeholders involved in the planning and delivery of infill housing ensures a neutral understanding of the issue and explores the opportunities and challenges of accommodating resident attitudes in policy. A typology analysis of the built form identifies "business as usual" and "better practice" examples of infill housing and develops an understanding of the context within which resident attitudes are formed. This analysis will deepen the understanding of the factors that contribute to community resistance towards infill housing and neighbourhood change.

The research is situated between planning and architecture, focusing on the translation between housing policy and built form. The output of the research is a new layer of understanding and interpretation - a detailed analysis of the lived experience of the resident to deepen the macro understanding of the "housing gap" through a bottom-up analysis. Research findings will be used to develop recommendations for how to better accommodate community expectations in planning policy.

Alternative housing systems

Guy Marriage, Victoria University of Wellington

In 2021 New Zealand passed legislation known as the Medium Density Residential Standards (MDRS). Unusually, this was agreed to by both the Labour Party and the opposition National Party, and so are likely to be in force unopposed for many years. The MDRS are likely to have a significant effect on the urban design of the New Zealand city, particularly in the suburbs of the five major cities. Once known as the Quarter-Acre, Half Gallon, Pavlova Paradise (Mitchell, 1961), New Zealand society no longer views half gallons, pavlova, or quarter-acre sections as either healthy, sustainable or desirable, while access to housing for first home buyers is still an unreachable dream for many. Fundamentally, our housing model that has worked for years, is now "broken", with our housing often at the top of world unaffordability rankings, exacerbating existing issues of inequity between the haves and the have nots.

While there are many possible solutions to help resolve this issue, including manipulation of fiscal policy, the adoption of the MDRS is obviously seen at Governmental level as a desirable solution. Medium density en masse is proposed for all Tier One cities, which encompasses a large majority of the nation's population. This paper will explore the issues likely to arise around the adoption of MDRS, including, design, planning and regulatory advice, and engage with ways in which the New Zealand nation may be able to explore alternative housing models. Two-storey townhouses does not have to be the only answer - and indeed, should not be seen as offering much improvement. The paper will examine alternative housing systems that are common overseas, to see if they could be applied here, or what issues may be stopping their adoption. Can a nation that sees itself as based on farming and suburbia, despite already being one of the more urbanised countries in the world, successfully rework its housing model to a new paradigm of medium and high density living, and what will that make our cities into?

The dynamics of residential collective sales: coming together, staying together, and falling apart (and coming together again)

Kristian Ruming, Macquarie University

Sha Liu,Macquarie University

Simon Pinnegar, University of New South Wales

Gillon, Charlie, University of New South Wales; Crommelin, Laura, University of New South Wales; Easthope, Hazel, University of New South Wales

This paper explores the dynamics of residential collective sales, where neighbours come together to sell their properties. Residential collective sales are driven by changes to local planning frameworks that increase dwelling densities, often surrounding new transport infrastructure. This process has potential benefits for both urban development interests and property owners. On the one hand, residential collective sales are vital to delivering urban change and increased density, as development actors purchase a single, consolidated plot of land, rather than having to engaging in a lengthy process of consolidating an appropriately size parcel of land through individual property purchases. One the other hand, residential collective sales are often characterised as "winning the lottery" for property owners who benefit from increases in property values due to the rezoning process and who are able to negotiate higher sales prices as a collective. However, resident collective sales are fluid, fragile, and prone to breakdown.

Drawing on research conducted in two Sydney suburbs experiencing the rezoning of detached residential properties- Showground and Cherrybrook- we investigate the dynamics of residential collective sales. Specifically, we reveal three distinct, but interconnected, processes in residential collective sales. First, we explore how neighbours come together in efforts to sell their properties, highlight how they initiate, configure, and manage collectives. Second, we highlight the processes and labour involved in keeping collectives together over the long process of selling their properties. Finally, we explore how and why some collectives fall apart, outlining what this means for residents, development actors, and local development. Importantly, these failed resident collectives are often followed by a new round of residents coming together, as new resident grouping emerge.

Disruptions to place attachment: affective geographies of place in the context of neighbourhood-level intensification

Larissa Naismith, University of Auckland

Exemplified by the rapid rise of apartment blocks, townhouses and master-planned estates in the post-suburban landscape, residential intensification processes are transforming the built and aesthetic form of traditional low-density neighbourhoods, locally and internationally. However, the localised social impacts of this transition to higher-density neighbourhoods and the implications for residents' experiences of place remain overlooked in existing research. Building on findings from the early stages of my PhD research, I examine how residents experience and "make meaning" of their neighbourhood in the context of intensification. Specifically, I examine how existing neighbourhood residents and incoming residents living in new-build medium-density developments negotiate affective attachments to place, and make meaning of their neighbourhood, in this context of density-related transformation. This is achieved through the use of qualitative methodologies and a phenomenological research approach that explores residents' everyday lived experiences of their neighbourhood across three case studies of new-build medium-density developments in Auckland- the Modal Apartments in Mount Albert, the Richmond Development in Mount Wellington and the Three Kings Redevelopment. Given that higher-density neighbourhoods are lauded in urban policy documents, and the neighbourhood remains significant in people's everyday lives, it is crucial that we understand how residents make meaning of, and negotiate, affective attachments to their neighbourhoods in this context of change.

How Australian manufactured home estates provide an attainable retirement lifestyle

Lois Towart, University of Technology Sydney

Manufactured Home Estates (MHEs) are a popular form of retirement housing, with a similar business model to caravan parks. An operator provides land, services and facilities; residents purchase a relocatable home and pay site rent. Operators promote these as providing an affordable retirement lifestyle as the purchase price of the relocatable dwelling is often below median house prices. These relocatable dwellings are chattels, there is little research into their price movements as they are (technically) not fixed to the land. This paper examines dwelling prices and site rents across 58 MHEs and caravan parks that provide permanent housing in the Central Coast, Newcastle and Hunter regions of New South Wales. Many of these dwelling prices are less than the median house prices for surrounding residential properties and this paper argues that rather than categorise them as affordable, a more appropriate nomenclature is attainable. These dwelling prices displays significant diversity within and between estates which allows MHE retirement living to appeal to a wider group of residents. Older Australians without housing equity or savings are able to attain a retirement lifestyle in MHEs which would not be achievable when confronted with high housing and/or rental prices. In contrast, site rents present challenges as they have risen to levels greater than 30% of income for single people reliant on the age pension and benefits. As most residents are reliant on the age pension (partially or fully) this group could face financial hardship if rents were to increase in response to inflationary pressures. This exposes tensions between residents and operators and state governments have shown an increasing willingness to legislate in favour of residents which is often to the detriment of financial returns to operators.

Housing location decisions and home ownership determinants for Bangladeshi immigrants in Perth, Western Australia

Sabrina Ahmed, Curtin University

Atiq Zaman,Curtin University

The present research indicates that housing location decisions are significantly influenced by consumers' demographic makeup, market trends, and lifestyle preferences. This interplay can result in the spatial polarization of population groups, as well as particular housing characteristics within urban centers. Despite this, there is a scarcity of research examining the long-term housing careers of immigrant groups, especially concerning the behavioral and attitudinal factors that shape their housing preferences and aspirations. The objective of this study is to investigate the housing preferences of Bangladeshi immigrants residing in the Perth metro areas of Western Australia, considering both demographic and neighborhood characteristics. Specifically, the study aims to identify the ideal home concept, dwelling and neighborhood attributes, and preferred destination geography through a semi-structured questionnaire survey of 521 Bangladeshi participants. The study's results suggest that the concept of the ideal home among Bangladeshi immigrants in Perth incorporates cultural and utilitarian attributes similar to those of the local Australian population. The analysis of participants' preferred characteristics of a prospective dwelling in a residential area considered two overarching categories: housing design and neighborhood profile, each with multiple subsets of attributes. The results show that a secure and safe dwelling in a safe suburb were identified as the two most critical attributes for respondents when considering their ideal home, indicating an increasing trend of property-related crimes in Perth's suburbs. Additionally, dwellings with multiple toilets and those situated within quality school zones were also rated highly in the importance category. There was also a strong trend toward moving to neighborhoods with quality school and religious facilities. These findings will help achieve more culturally driven housing outcomes.

Pathways to home ownership in an age of uncertainty

Caitlin Buckle, University of Sydney

Laurence Troy,University of Sydney

Peta Wolifson, University of Sydney

Buckley, Amma, Curtin University; Adkins, Lisa, University of Sydney; Bryant, Gareth, University of Sydney; Konings, Martijn, University of Sydney

Over the past two decades there has been a notable decline in home ownership rates across Australia. Simultaneously, changes in labour markets have seen the emergence of more precarious forms of employment, and most recently stagnation in wages. The cumulative effect of more precarious employment trajectories, economic uncertainties, and reliance on other forms of wealth accumulation as pathways to ownership, opens a series of questions about precisely how households negotiate and manage their finances to transition to, and maintain, home ownership.

This presentation reports on a work funded by the Australian Housing and Urban Research Institute (AHURI) that aimed to investigate how young households are adapting their behaviour in the areas of finance, living arrangements and consumption in order to navigate their pathway into home ownership. This project utilised a novel financial diary methodology to examine fortnightly household cash flows over a 9 month period across two Australian cities, Sydney and Perth. Our study revealed high levels of volatility and uncertainty in incomes and spending that challenged the capacity of households to plan for housing purchase. In the face of these uncertainties, households were increasingly being forced to take on considerable financial risks in terms of timing purchases and taking on debt, often leading to poor outcomes. These predominantly external conditions are also forcing many households to rely on family support to enter into home ownership, which, in the case of Sydney, was essential for those households who did manage to transition. These findings reveal the various challenges of entering into homeownership now, and without intervention, into the future.

The Sustainability of Public Housing: the importance of governance

Sarah Bierre, University of Otago Wellington

Libby Grant,University of Otago Wellington

Mary Anne Teariki, University of Otago Wellington

Aspinall, Clare, University of Otago Wellington. Allen, Natalie, The Urban Advisory Allen, Natalie

There is an acute lack of good quality affordable housing in Aotearoa New Zealand cities, which has led to a significant increase in in poorer wellbeing outcomes. There is an urgent need for large-scale public housing to meet the needs of those most at risk. To address this need, there has been a concerted drive to provide more public housing. There has been a growth in investment in the sector, both from increasing numbers of community housing providers, as well as the Crown Entity Kāinga Ora - homes and communities, to increase the level of state-owned housing.

There is limited evidence on the performance of community and government housing organisations nationally and internationally and a need to better measure and understand the pathways through which the organisations support wellbeing in their communities. The Public Housing and Urban Regeneration: maximising wellbeing (PHUR) research programme, is a five-year government-funded programme which is investigating the impacts on tenant and community wellbeing of different kinds of public housing approaches. PHUR is a collaboration of several research partners and is in partnership with seven community and public housing providers ranging from very small community providers to a large Crown Entity. There are several strands of research. The Governance Strand is studying the governance and financing of the different housing provider organisations to understand how these arrangements support the organisations' stated wellbeing ambitions.

We developed a theory of change model and using a constructivist qualitative methodology, collected data from a range of internal and external documents. Documents were coded using NVivo and were based on three wellbeing frameworks: the NZ Treasury Living Standards Framework; the Whakawhanaungatanga model of Māori wellbeing (developed by the Māori Strand of PHUR); and a Pacific wellbeing model. We then undertook interviews with people in key governance roles in the organisations and the funding and regulatory bodies. These interviews were transcribed and coded to identify major themes, areas of communality and differences. Preliminary findings highlight the need for a sustainable funding model and the

organisations' deep commitment to embed the Treaty of Waitangi in their governance. These results are being shared with our community partners in regular liaison meetings.

Mapping the dispossessory lineages of public housing

David Kelly, RMIT University

Libby Porter, RMIT University

Priya Kunjan, RMIT University

In a recent essay (Porter & Kelly, 2022) we outlined our discomfort with housing justice research and activism about a politics of asserting the terms of housing justice in ways that obscure the foundational dynamic of dispossession in a settler colony. Our critique drew inspiration from Barker's (2018) concept and framework of "territory as analytic" to begin more explicitly from where we are with the fact of Indigenous sovereignty; and Nichols' (2020) understanding that "possession does not precede dispossession but is its effect". Taking dispossession as the formative relationship of dwelling in a settler colony, this sheds a different kind of light on critical research and activism where the grammars of dissent reinforce settler colonial logics and futures, where Indigenous peoples and sovereignties are "always already gone" (Barker, 2018).

This paper builds on that work to advance a methodological approach that can more accurately grapple with dispossession as a structural component of housing provision in settler-colonial cities. We do so by examining one housing site at Northcote, Melbourne - a well-located neighbourhood of around 80 public housing homes. Between 2018 and 2020 all residents of this site were displaced, and the buildings demolished as part of the Public Housing Renewal Program. The site is now being redeveloped for mostly luxury private housing with a small corner reserved for housing operated by a non-state housing organisation. Developing a methodological approach in Porter, Jackson and Johnson (2019), we chronical title records to map the ongoing dispossessory events that scaffold settler possession.

Extraction at the intersection of property and platform rentierisation: new Proptech assets and the growing commodification of tenant experience

Dallas Rogers, The University of Sydney

Sophia Maalsen, The University of Sydney

Peta Wolifson, The University of Sydney

In this paper we show private renting is increasingly comprises a complex assemblage of landlords, property managers and agencies, software developers and providers, property developers, and investors. Our analysis sits at the intersection of rentier and platform capitalism, focusing on both the landed property (material real estate) and intermediation (digital and intellectual) assets in Australia's private rental system. We reveal how, for some rentiers, both material and technological assets are at play for capital rent extraction. Our findings show landed property rents are still important to many established (individual and institutional) landlords, whose interest in Proptech relate to the ability to enhance or add value to their material rental stock. Meanwhile, intermediation and platform rents are important to the Proptech sector and some of the largest property developers, some of which are seeking to consolidate their technology and data holdings. Indeed, intermediation rents are a key reason for building and/or using Proptech for some of these actors. We argue tenants are experiencing the extractive effects of both these phenomena, driven by private landlords in hand with Proptech consolidators. In looking to develop or enhance their material and digital assets, the Proptech consolidators are contributing to the commodification and commercialisation of private renters' experiences.

Platform Informality? Planning For New Housing Practices

Nicole Gurran, The University of Sydney

Zahra Nasreen, The University of Sydney

Pranita Shrestha, The University of Sydney

Digital platforms have transformed housing markets and enabled new practices to emerge. We examine these practices and their implications for urban planning and housing policy, focusing particularly on low cost and informal rental accommodation. With reference to Australia's three largest cities (Sydney, Melbourne, and Brisbane), we investigate the range of accommodation types advertised on major commercial and peer to peer platforms "realestate.com.au"; "flatmates.com.au"; "gumtree.com.au" and "airbnb.com", finding a hidden housing market "substructure" consisting of informally constructed and or leased rental units, share homes or rooms, and Airbnb style holiday accommodation. Using a combined dataset of around 60,000 rental listings, we construct a typology of low cost and informal dwelling types and tenures, and analyse the geographical distribution of this accommodation relative to the "formal" supply of rental housing, identifying key intersections with the planning system as well as potential policy responses.   Overall, we seek to contribute to the growing literature on informality in the global north and specific implications for planners charged with addressing future housing supply requirements under wider conditions of platformisation and social precarity.

Understanding and quantifying the value, challenges and possibilities of rental housing cooperatives in Australia: A "Rental Housing Co-operative Member Survey"

Piret Veeroja, Swinburne University of Technology

Wendy Stone, Swinburne University of Technology

Louise Crabtree-Hayes, Western Sydney University

Grimstad, Sidsel, Griffith University; Perry, Neil, Western Sydney University; Power, Emma, Western Sydney University; Ayres, Liz, Western Sydney University; Guity Zapata, Nestor Agustin , Swinburne University of Technology; Niass, Jeremy , University of

Housing co-operatives may offer an affordable and socially responsible alternative to mainstream tenures of home ownership and private rental housing. While some mostly qualitative international research has highlighted the social and economic benefits of co-operatives for members, governments, and society in general, the values, benefits and opportunities associated with housing co-operatives, are not well quantified or understood. Nor are these potential benefits well understood in affordable sectors like the Australian community housing sector. This paper presents part of an Australian Research Council Linkage project "Articulating value in housing co-operatives" that focuses on affordable rental co-operatives in four Australian states. It will present the " Rental Housing Co-operative Member Survey"- an original, nationally and internationally applicable data collection tool developed for the project to capture the value and challenges of living and participating in rental co-operatives, and some key findings.

The survey was developed using a combination of nationally and internationally accepted measures of social value, with purpose-designed question items, in consultation with international advisors and a steering committee of community housing providers and co-operative members. It captures information across four areas: 1) the housing co-operative the respondent lives and participates in; 2) activities, responsibilities, benefits, and challenges related to living and participating in a housing co-operative; 3) how living and participating in a housing co-operative has impacted the respondent's life; and, 4) respondents socio-demographics. Responses were collected online and on paper from June 2022 to March 2023, with translation where needed.

Survey responses (n=291) indicate that around half of the respondents have lived in their current home for over 10 years. Most respondents said that living in a housing co-operative had a very positive or positive impact on their happiness (71%), health (57%), education (54%) and employment (53%). Most of respondents hold a specific role in their cooperative housing (such as a director, chairperson, or minute taker). When asked how often these activities cause challenges, 36% said that challenges occur some of the time.

This study highlights the importance of understanding the needs and experiences of co-operative members. The Rental Housing Co-operative Member Survey can be used to capture and evaluate the values and challenges of co-operative housing, thereby informing policies that promote the development and sustainability of co-operative housing in Australia and elsewhere. To conclude, this paper reflects on applying the survey in other country and housing contexts, and on the value of the rental housing co-operative sector more widely.

Rental housing markets in three years of the COVID-19 pandemic: temporary disruption or longer-term restructuring? Investigating international evidence

Hal Pawson, University of New South Wales

Chris Martin, University of New South Wales

The three years since the onset of the COVID-19 pandemic have seen remarkable and un-predicted developments in rental housing markets across many countries. In nations such as the UK and Australia, the initial lockdown and income-shock phase of the crisis saw sharp rental price reductions in some local markets. Subsequently, however, advertised rents have generally risen steeply, substantially outpacing general inflation, even at the elevated levels seen during 2022 and into 2023. Coinciding, at least initially, with unusually low immigration, population and wage growth, this latter phenomenon poses an apparent challenge to conventional thinking on rental housing mechanics.

Drawing on a wide-ranging international review of pandemic housing market impacts and housing policy responses, this paper therefore analyses the rental market turbulence of 2020-2022 in the UK and Australia, contextualized via observations on parallel experiences across a range of other high income countries- Canada, Germany, Ireland, New Zealand, Spain and the USA. Arguably, for housing market analysts, the COVID-19 crisis had the effect of generating "natural experiment" conditions- e.g. with respect to volatile migration flows and interest rate gyrations. Seeking to exploit this opportunity, this study looks to generate new insights on rental housing market dynamics, including on relationships between advertised, contracted and established tenancy rents, as well as the factors that influence key market parameters such as turnover and vacancy rates, as well as the price of rental housing.

Renters versus landlords: discursive framing of heroes and villains in Australia's rental crisis

Helen Dinmore, University of South Australia

Record low rental vacancy rates and a rental affordability crisis, both exacerbated by conditions during the Covid-19 pandemic, have increased tensions between renters and landlords in Australian public discourse. Wide reporting on the housing crisis has tended to characterise renters and landlords as either victims or villains. In particular, eviction moratoriums and rent freezes during Covid-19 opened the way for the revival of "landlordism" as a derogatory term, in contrast with more benign depictions of landlords as essential accommodation providers facing serious financial concerns of their own. Hulse et al. (2019) have interrogated a focus on "mum and dad investor" landlords as politically driven and a misleading attempt to valorise the majority of landlords as "ordinary people" taking responsibility for their financial futures. While around 70% of Australian landlords own just one rental property, over 60% of rental properties belong to portfolio landlords with two or more properties, including non-household landlords. This discrepancy between public perception and reality points to a need for a more nuanced understanding of the roles and relationships of tenants and landlords. This paper analyses political and media discourse related to the needs of renters and landlords through the emergency response phase of the Covid-19 pandemic and into the current rental vacancy and affordability crisis. It proposes that a diversity of renter needs and landlord profiles suggests one-size-fits-all policy responses to crises in the rental market are not appropriate, but a more tailored approach is undermined by hyperbolic and generalised representations of both parties in politics and the media.

City Health and liveability

Equitable and sustainable urban transport? Challenges for public housing in Aotearoa

Ed Randal, University of Otago, Wellington

Ralph Chapman, NZ Centre for Sustainable Cities

Michael Keall, University of Otago, Wellington

Keren Love, Victoria University Wellington

Philippa Howden-Chapman, University of Otago, Wellington

Urban transport is one of Aotearoa's leading contributors of carbon emissions and the sector that is expected to make the largest contribution to emission reductions. The way we travel also has a wide range of impacts on wellbeing, from positive impacts that improve our lives (e.g. through access to friends, family, education and jobs, or opportunities to exercise) to negative impacts that reduce life quality (e.g. congestion, carbon emissions, pollution, road injury and financial costs). The way we design our urban environments also heavily influences wellbeing, both directly and through its interaction with travel patterns and accessibility. We also know that many of these impacts are not distributed fairly, with Māori and Pasifika, women, and socioeconomically disadvantaged people experiencing substantial transport and transport-related health inequities.

With growing impacts of climate change in both rural and urban Aotearoa, there is an increasingly urgent imperative to shift the way we travel to more sustainable modes. This shift provides an opportunity to create a transport system that addresses existing inequities. However, policies to reduce emissions also pose a risk that existing inequities are exacerbated and/or new inequities are created. To best achieve this shift, we need to understand the travel patterns, needs, aspirations of, and barriers facing those most at risk of transport and health inequities.

While little is known about the travel patterns and travel needs of public housing tenants, recent studies have found that people in public housing have far greater unmet need from transport than the rest of society. This presentation reports on initial findings and experiences of the Transport Strand of the Public Housing and Urban Regeneration (PHUR) research programme (a 5-year MBIE-funded Endeavour programme run by the NZ Centre for Sustainable Cities). We are working with public housing providers and communities to understand the transport mode choices made by, and the transport-related views of, public housing tenants,

the role providers have in shaping and locating public housing to facilitate sustainable transport choices, and the options and capabilities of tenants to lower their transport carbon footprints. We are also exploring interactions between public housing location, sustainable transport opportunities, accessibility, and tenant wellbeing, with reference to Western, Māori and Pasifika wellbeing models developed as part of the PHUR programme.

Safer, healthier streets for Mangere, South Auckland: the incremental transformation of a neighbourhood

Karen Witten, SHORE & Whariki Research Centre, Massey University

Hamish Mackie, Mackie Research

Kimiora Raerino, SHORE & Whariki Research Centre, Massey University

Safe and pleasant suburban streets foster the health and wellbeing of residents by encouraging walking, biking and wheeling and serendipitous social interactions with neighbours. However it is often a political and financial challenge to transform streets designed primarily for vehicles into healthy streets for people. Over the past 10 years, we have observed and contributed to healthy street changes in Māngere and in this presentation we reflect on progress.

Māngere streetscapes are changing. High levels of traffic-related injury and chronic disease in the community galvanised attention around a need for change in the street environment and the potential benefits of creating opportunities for active travel. Change has been incremental but the enduring efforts of local government, community groups, mana whenua, transport professionals and researchers have led to a series of interventions to improve the safety of active mode use as well as activations attuned to the needs and aspirations of Māngere residents.

The presentation will cover area-wide changes to Māngere's street environment over the past decade, and the impact of the changes on road user behaviours in specific locations; observations on a changing approach to community engagement by the regional transport agency and its influence on proposed investments; characteristics of local walking and cycling cultures; and a collaboration to design, fund, set up and run local e-bike trials.

Infrastructure investments has been a crucial element to changing transport opportunities but so has local government and the regional transport agency support for community initiatives including a bike hub located in the heart of the Māngere community. The Hub provides a base for Time to Thrive, a community organisation promoting cycling, to spark a local biking culture through activities such as bike skills training, bike fixing workshops, group rides, community events, and partnering in the design and delivery of ebike trials.

Māngere's streetscape changes has been gradual but the cumulative effects of the efforts of many have resulted in a series of loosely connected interventions, some permanent and some

temporary, that have over time provided safer and healthier transport opportunities for residents. An enduring question emerging from this decade of effort in Māngere is what is the optimal mix of infrastructure, services, and organisational cooperation to effectively and efficiently delver safe and user-friendly streets for walking and cycling in communities?

To what extent local governments have authority and autonomy to enable active transport for older people in South Australia

Yousefi Zahra, PhD Candidate, University of South Australia

Alpana Sivam, Senior Lecturer

Helen Barrie, Senior Research Fellow

Chronic diseases are becoming more prevalent in Australia as the population of older adults grows. Over 310,000 older people will live in South Australia by 2031, accounting for 17% of the population. Despite the health and longevity benefits of active travel for older adults, their participation in these activities decreases as they age. As well, transportation options for older adults, such as public transportation and cars, are influenced by government policies.

A key factor affecting the effectiveness of these policies is the level of authority and autonomy granted to local governments. Local governments in Australia are overseen by state governments, which may limit their capacity. Therefore, this study examines the policy frameworks for active travel for older residents in South Australia, including planning, transport, and health.

The socio-ecological theory suggests that policies can influence older residents' transportation choices. Consequently, local governments, as the closest tier to communities, are responsible for implementing active travel policies formulated at the state level as part of their essential services. A combination of critical policy document analysis and semi-structured interviews is used in this study to investigate how government policy documents address active travel for older residents. Among the major themes identified in the analysis are community, funding, and institutional factors.

This research aims to provide empirical data on how to improve active travel policies and outcomes for older residents of South Australia, an understudied policy area. This study can inform policymakers on how to enhance active travel policies in the future, focusing on meeting the needs of an ageing population in urban areas to promote active and healthy ageing.

Overall, the study highlights the need for local governments to have greater authority and autonomy in implementing policies regarding active travel policies for older adults. Using the findings of the study, policymakers can develop more effective solutions to promote active and healthy ageing among older residents by understanding the factors that influence the

effectiveness of such policies. In addition to having significant implications for governance, health, and liveability, this study can also help communities and cities become more age-friendly.

Descriptive epidemiology of bicycle use: variations in distances by trip purposes and cyclist attributes

Firas Mohamed, 1. Centre for Urban Transitions, Swinburne University of Technology, Melbourne, Australia 2. Department of Mathematical Sciences, South Eastern University of Sri Lanka, Sammanthurai, Sri Lanka

Manoj Chandrabose, 1. Centre for Urban Transitions, Swinburne University of Technology, Melbourne, Australia 2. Baker Heart and Diabetes Institute, Melbourne, Australia

Abdur Rahim Mohammad Forkan, School of Science, Computing and Engineering Technology, Swinburne University of Technology, Melbourne, Australia

Neville Owen, Centre for Urban Transitions, Swinburne University of Technology, Melbourne, Australia & Baker Heart and Diabetes Institute, Melbourne, Australia

Takemi Sugiyama, Centre for Urban Transitions, Swinburne University of Technology, Melbourne, Australia & Baker Heart and Diabetes Institute, Melbourne, Australia

Cycling as a mode of transport has numerous benefits for health and the environment. Despite this, the prevalence of cycling is low in many countries, including Australia. Promoting cycling is thus a priority for local and national authorities. Research shows that the built environment plays an important role in facilitating or hindering cycling. Measuring how easy it is to cycle in a certain area (i.e., bikeability) is crucial for developing policies and initiatives to promote cycling. Existing studies have proposed various measures of bikeability. They typically follow the steps of measuring walkability, in which relevant environmental attributes are measured within a certain size of "buffer" drawn from a point of interest (e.g., the participant's home). Applying this approach to bikeability is challenging, since there is little information about the size of buffer appropriate for bikeability. We examined the distance adults cycled to/from their home using travel survey data collected from Australian states of Queensland and Victoria, to inform the development of bikeability indices. Survey participants reported details of each incidence of travel (origin, destination, start/end time, mode, and purpose) on the assigned survey day using a 24-hour travel diary. Cycling trips were categorised into three types according to their purposes: utilitarian, commuting, and recreational. We used decision tree modelling to identify relative importance of trip purpose and participant's socio-demographic factors (gender, age, employment status, urban/regional, state) in relation to cycling distance. The total number of adult participants who reported at least one home-based trip on the survey day was 67,621, of

whom 1,512 (2%) reported cycling trips (66% men, age: 20-39 years: 40%; 40-59 years: 42%; 60-74 years: 18%). The number of home-based cycling trips was 3,128, and their median distance was 3.4 km. Decision tree analysis found that the strongest factor determining cycling distance was trip purpose (relative importance: 100%), followed by gender (24%). The importance of the other factors was less than 10%. The median distance of utilitarian, commuting and recreational cycling trips was 1.6, 5.3, and 3.6 km, respectively. Although men and women did not differ considerably for the distance of utilitarian cycling trips (median: 1.7 km for men, 1.5 km for women), they differed in the distance of commuting trips (5.9 km for men, 4.3 km for women) and recreational trips (4.0 km for men, 2.6 km for women). The findings, showing a wide range of distances that adults cycled for different purposes, suggest that using a single buffer may not be adequate to accurately identify the level of bikeability. Multiple buffer sizes may be needed to assess bikeability, depending on the purpose of cycling.

The impact of shared mobility on community wellbeing in two contrasting communities in Christchurch

Simon Kingham[a], Angela Curl[b], Helen Fitt[c], Cushla Dares[d], Els Russell[e], Anna Coppens[f], Christina McKerchar[g], Lindsey Conrow[h], Karen Banwell[i], James Berghan[j] and Jonathan Williman[k]

[a]*University of Canterbury*

[a,b,c,d,e,f,g,h,l,j,k]*University of Otago*

Transport is a major source of greenhouse gas emissions (GHGs) and plans are being implemented to reduce these emissions including attempts to reduce VKTs. Transport can also have a major impact on community wellbeing. Public and active transport are well known and established ways to reduce our reliance of private motor vehicles and reduce greenhouse emissions. However, shifting people away from owning their own vehicle can be challenging due to the perceived loss of independence the private motor vehicle is seen to provide. But an ongoing reliance on privately owned vehicles can place a significant financial burden on low income communities. One potential solution is shared mobility, which has the potential to provide independent transport when needed. It also has the potential to enhance community wellbeing by providing lower per-trip costs, increase options, promote active modes, and encourage social interaction through 'sharing'. There is, however, little evidence of how this actually impacts the wellbeing of communities.

The ACTIVATION Christchurch project is examining two different communities; a social housing complex and a retirement village; communities with very different demographics. They are both located in Christchurch, are relatively high density developments with reasonable central city access and both have access to shared mobility schemes, albeit with different operation models both of which have experienced some logistical and community challenges. This longitudinal study explores the transport experience of both communities, and seeks to identify the impact of shared mobility on their wellbeing. This paper will outline this research project and present some results.

HIKO: E-bikes for transport equity & healthy communities

Emma Obsorne, University of Otago, Wellington

Cheryl Davies, Kokiri Marae

Caroline Shaw, University of Otago, Wellington

E-bikes have the potential to support liveable cities which promote planetary, community and individual health through decreasing transport emissions and other harms from motorised transport, and increasing physical activity and connection to the natural environment. E-bikes open up active transport for more people, for a greater range of trip types and for longer distances by making cycling less strenuous. Having access to an e-bike can reduce transport costs and increase transport choice, particularly in transport-disadvantaged settings. However, the high cost of e-bikes means that most e-bikes are purchased by people with higher incomes who already have greater transport advantage. E-bike loan schemes have been identified as a potential way of promoting transport equity, but there are few models of such schemes which have been robustly researched.

The HIKO pilot project is a long-term e-bike loan scheme that is currently operating in Wainuiomata, Te Awakairangi. HIKO has provided 25 participants with a loan of an e-bike at no charge for six months. HIKO is being delivered through Kokiri Marae, an urban marae with a longstanding history of providing health and social services in Wainuiomata and Te Awakairangi. The aims of the HIKO pilot are to promote transport equity through increasing access to e-bikes for Māori and Pasifika whānau living in Wainuiomata. The research and evaluation of HIKO is being done in partnership between researchers from the University of Otago and from Kokiri Marae. Research aims include investigating the impact of access to an e-bike on participants' transport patterns, physical activity and wellbeing through a combination of focus groups, interviews and surveys.

This presentation will use the model of Te Pae Māhutonga (Durie, 2004) to explore the importance of mana whakahaere (autonomy) and ngā manukura (Indigenous leadership) in the design of HIKO, and to discuss the outcomes of the e-bike pilot in terms of mauriora (cultural identity and access to the Māori world), waiora (environmental protection and opportunities to experience the natural environment), toiora (healthy lifestyles) and whaiora (participation in society).

HIKO both models the role of marae-led, community-oriented health promotion in fostering liveable, inclusive cities and demonstrates the potential for e-bike loan schemes as way of promoting equitable, sustainable and enjoyable transport.

Durie, M. (2004). An indigenous model of health promotion. Health Promotion Journal of Australia, 15(3), 181-185.

Exclusionary cities by design or by default: can we do better?

Tricia Austin, Arcitecture and Planning, University of Auckland

Tricia Austin, University of Auckland

Tricia Austin, University of Auckland

The majority of built environments in New Zealand's urban areas and settlements are not well designed for meeting the needs of people with disabilities. elderly people, children, Māori or people from different cultures or religions. In addition to sometimes complete failures of functionality (the lack of a kerb cut preventing wheelchair users from crossing a road immediately comes to mind), unwelcoming (for many reasons) environments are often prevalent. Implicit assumptions such as designing developments for nuclear families with at least one adult (presumed male) in full employment, through to designing for able-bodied individuals (young and old) have played their part in forming the cities of today. In the academic world, the gender critique of our cities is well-known (starting with Hayden, 1984); whilst the ableist / disableist critique is gaining traction (starting with Imrie, 1965 and Gleeson, 1999); and, in New Zealand Aotearoa, Māori voices about, and influence on, planning in Aotearoa (starting with Matunga, 1983) are being increasingly articulated. Changing the built environment is inevitably a slow process, so whilst professional practices are changing more quickly along with societal attitudes, we live with many of the legacies of past decisions.

This presentation will draw on New Zealand and Auckland material to examine gaps and failures in our current policies, plans and practices, that must, at a minimum, be addressed to respond to human rights issues and deliver more inclusive built environments.

Examples to be considered range across several areas including current policies (such as related to New Zealand's Medium Density Housing Standards); to the idea of the 15 minute city (when a 15 minute catchment envisaged for an able adult male, looks very different from that for a wheelchair user, for a white stick user and for an elderly person); to the provision of social housing that has neither locational regard for existing whānau networks or for extended family living. Universal design has been proposed as the way forward, with its non-specificity and ambiguity allowing many to 'buy in' to the proposed solution. The potential for Co-design alongside Universal design may offer a positive way forward.

Can place-making and new technologies support wellbeing and belonging in new suburbs?

Annette Kroen, RMIT University

Chris De Gruyter, RMIT University

Cecily Maller, RMIT University

A large part of Australia's strong population growth in the last decade has been accommodated in greenfield developments on the urban fringe of the larger cities, with this trend likely to continue into the future. This type of development requires infrastructure and services, as well as the need to build community where there are no existing residents and services. At the same time, there is a need for more sustainable buildings and environmentally friendly design, as well as a desire to be able to live more locally. Some developers respond to these needs and aspirations by providing additional amenities, in order to make their estates more attractive to potential buyers. These amenities can include parks, community centres, shops, as well as community development activities during the development of the estate. Some more recent additional amenities are smart technologies, renewable energy use (i.e. solar panels), water conservation, and improved walkability.

This paper presents preliminary results from a longitudinal study of an estate on Melbourne's fringe which provides specific place-making and innovation initiatives, such as smart technologies, solar panels, improvements to water and conservation management, place-making and community development activities, a community app, a bespoke Owners Corporation, and an inter-connected transport and pedestrian network. The study explores the long-term impacts of those initiatives on residents' sense of wellbeing, belonging and active connections to place.

Residential development at the estate commenced in May 2019 with the first residents moving in from the end of 2020. The paper will draw on three online resident surveys undertaken in 2020, 2022 and 2023. Survey questions focused on residents' expectations, attitudes and experiences with the innovation initiatives in order to understand the impact on their sense of wellbeing and community as well as travel behaviour and preferences.

The paper will investigate whether the innovation initiatives were important to residents when moving to the estate and to what extent residents' perceptions have changed in terms of their wellbeing, sense of community, interactions with neighbours, access to services and amenities,

travel practices and physical activity levels after moving to the estate. This will also include an assessment of whether certain innovation initiatives are more successful or relevant than others. The results will be compared to previous studies on master-planned estates in growth areas, in order to understand the relevance of innovation initiatives and whether these could be extended to other suburbs.

Improving the acoustic environments of cities through urban sound planning and soundscape design: challenges and opportunities

Josh Hernandez, School of Built Environment, University of New South Wales, Sydney

Marion Burgess, School of Engineering & Information Technology University of New South Wales, Canberra

Mike Harris, School of Built Environment, University of New South Wales, Sydney

Prasad, Deo; School of Built Environment, University of New South Wales, Sydney

Urban sound planning and soundscape design are interdisciplinary practices which have the potential to improve urban places and spaces by preserving, fostering, and utilising positive sounds. They stem from the wider field of soundscape research, which studies the perceptual relationship between people and the acoustic environment. Soundscape researchers and practitioners understand that sounds are perceived by people on the basis of subjective, contextual factors. Sounds are not only negative, i.e. "noise", causing discomfort and discord, but they can also be positive and preferable, based on personal and cultural values. Overall, sound is conceptualised as an environmental resource which not only affects individual health, but also interacts collectively with communities and societies- and it must be managed holistically to achieve good outcomes. This understanding contrasts with the conventional paradigm of environmental noise, which remains the predominant method for managing acoustic environments. Here, sound is treated as a pollutant requiring mitigation or amelioration through noise limits- the subjective perception of sounds, and their positive potential, is not recognised. Urban sound planning (a.k.a. "soundscape planning" or "soundscape management") addresses the shortcomings of current noise management practices by integrating soundscape considerations into the planning and design of urban environments. Over the past decade, test projects in a variety of contexts have confirmed the effectiveness of these methods for designing pleasant, inclusive, and place-based acoustic environments- especially if they are considered from the outset of the planning process, and there is genuine engagement with stakeholders and communities. However, the longevity of these outcomes, and the implementation of urban sound planning at a structural/policy level, has faced challenges- ranging from the rigidity of existing regulatory systems to difficulties with interdisciplinary collaboration and communication. Disciplines such as design thinking and implementation science offer conceptual frameworks for analysing these problems and potentially, methods for working with stakeholders and built environment professionals to

address them. Combining insights across these disciplines, this paper discusses current progress towards the integration of urban sound planning in policy and practice, and the barriers and opportunities which could be targeted to achieve outcomes in urban soundscapes more efficiently.

Urban trees and human wellbeing

Peter Edwards, Manaaki Whenua Landcare Research

Seanglidet Yean, Nanyang Technological University

Yun Si Goh, Nanyang Technological University

Jan Schindler, Manaaki Whenua Landcare Research

Eleanor Absalom, University of Sheffield

Bu Sung Lee, Nanyang Technological University

Gradon Diprose, Manaaki Whenua Landcare Research

Robyn Simcock, Manaaki Whenua Landcare Research

The positive impact of urban greenspace on human wellbeing is well known, as is the positive impact that urban trees have on a myriad of factors related to human health. Questions remain as to whether urban trees generally, including street trees and small stands that may not be associated with a greenspace, have an effect on a holistic measure of human wellbeing. We are also interested in whether particular characteristics of urban trees, such as density, size, canopy cover, species, and age have an effect on human wellbeing.

To this end, using the OECD wellbeing framework, we have developed a weighted index of human wellbeing for our case study cities, Wellington and Singapore. Using microdata from the StatsNZ Integrated Data Infrastructure and more general statistical data from the Singapore Department of Statistics, we are modelling the correlation between characteristics of urban trees and the holistic index of wellbeing. The modelling approaches include logit models, Bayesian hierarchical models and laso models.

Preliminary results from our regression modeling shows some weak positive correlations between some tree characteristics and individual elements of the index of wellbeing. As this is a work in progress, we anticipate soon understanding the correlations between tree characteristics and the holistic index of wellbeing. A number of issues with the data (non-normal distributions) have proved to be challenging. Our solutions to these challenges will also be discussed in the presentation.

Realising the potential of communal spaces in public housing

Sian Thompson, Kāinga Ora - Homes & Communities

Amelia Lee Chee, Kāinga Ora - Homes & Communities

Kāinga Ora is Aotearoa New Zealand's national public housing and urban development agency. In its role as public landlord, it owns and manages over 70,000 homes across the country, and is currently in a period of growth: in the 2021-2022 financial year, Kāinga Ora added a net 1,340 new public and supported homes, with over 10,000 still in the pipeline.

A large proportion of these new additions are at medium or high density. Historically, the national public housing portfolio has been made up primarily of standalone and duplex homes, so this is a major shift. At the same time, the agency has increased its focus on wellbeing, with more frontline staff to support its over 180,000 tenants and a name change from 'Housing New Zealand' to 'Kāinga (home/village) Ora (healthy)'.

To support wellbeing at this increased density, the Spaces for Building Communities (SBC) guideline was developed in 2018, setting out when communal spaces should be developed, and giving details on the type and design of these spaces. This presentation draws on insights from the 2022 evaluation of the SBC, looking at the tension between two perspectives that were uncovered: a 'practical realist' perspective focused on risk management and efficiency, and a 'strengths-based respect' perspective focused on empowering tenants and maximising the outcomes from communal spaces.

We argue that realising the benefits of communal spaces in public housing needs an appropriate combination of (and negotiation between) these two perspectives. The SBC draws largely on the strengths-based respect perspective, but historically Housing New Zealand has taken more of a practical realist approach. This tension has posed difficulties in decisions around access to communal spaces, appropriate design/co-design of spaces, co-management and resourcing to support community development. Furthermore, greater understanding of the purposes of communal spaces could support more consistent provision and improve design and management. There is great potential in these communal spaces with some already providing excellent amenity and benefits for their tenants, however resolution of the above factors would help more communal spaces realise this potential.

Well-being and ill-being in the city

Philip S. Morrison, Victoria University of Wellington, Te Herenga Waka

The contemporary 21st century debate over the faltering connection between well-being, urbanisation and economic growth largely by-passes a much older concern over the impact of the city on mental health, on the depression and anomie. I argue that the contemporary separation of inquiry into urban well-being and ill-being hinders both the theoretical and public policy debate over the psychological consequences of continued urbanisation in general and the growth of mega-cities in particular (Morrison, 2011, Morrison, 2020)

While there is a strong case for bringing the mental ill health and well-being literatures together there are also several challenges. The well-being questions, asked mainly in positive psychology, well-being economics and affiliated fields such as regional science and economic geography, differ in several important ways from the ill-being questions asked within the disciplines of public health, epidemiology, sociology and urban planning. The differences are not merely semantic. The way psychological responses to urban living are conceptualised not only affects how they are measured and what are identified as drivers, but also what is advocated in the public policy debate.

The case for embracing the well-being and ill-being, both conceptually and empirically, has been made recently at the country level by the OECD who recognise both the (inverse) correlation between well-being and ill-being on one hand and their independent roles on the other (OECD, 2023).

Childhood Change in Pacific Rim Cities; the constants, the changes and the challenges

Claire Freeman, Victoria University Te Herega Waka

Sarah Turner, McGill University

Helen Woolley, University of Sheffield

Buttery Yvette University of Otago

The Negotiating Childhood around the Pacific Rim sets out to explore changing childhoods in rapidly changing Pacific cities. The study asks: Is the 21st century a good time to be a child? Are our cities urban spaces that support hauora, well-being and liveability for children growing up today and how does childhood today compare to those of their parents and grandparents' generations. Given that childhood has changed enormously in the last three generations for many children in the Pacific-Rim what should be priorities for governments and planners whose actions shape the places where children live?

This paper reports on a multi-country study with multi-generational families living in major cities in five Pacific Rim countries. These are New Zealand (Wellington), Samoa (Apia), Vietnam (Hanoi), China (Shanghai), and Indonesia (Yogyakarta). All are major national or capital cities experiencing substantive physical, environmental, and social changes; notably, physical expansion and associated changing urban forms, demographic change, and lifestyle changes related to fluctuating socio-economic pressures and demands. In this paper we focus on findings from Wellington, New Zealand and Apia, Samoa. These are cities where childhood has very different, challenging and exciting ways of looking forwards and to ensuring that what has been valued over generations as central to children's well-being is not lost, so that their cities are healthy places to live and grow-up in.

Given that the study involves personnel from seven countries; three lead investigators located in New Zealand, Canada and the United Kingdom and multiple research assistants located in the five study countries; all working in the context of an ongoing pandemic, conducting the study was particularly challenging. Methods used were interviews, childhood photos and family group discussions with multi-generational families who comprise grandparents, parents and children living close to each other in these major cities. We present the preliminary results from the study. We identify major childhood changes, the primary concerns for families in Wellington and Apia and identify the factors that they have in common with and how they differ from

experiences in China, Yogyakarta and Hanoi. Through our collective data gathering and story sharing, we hope to empower families, and professionals to identify and understand ways children's lives have changed at family and neighbourhood levels.

Young Pacific Islanders' perspectives on cities and wellbeing

Christina Ergler, University of Otago

Claire Freeman, University of Victoria Wellington

Michelle Schaaf, University of Otago

Anita Latai Niusulu National University of Samoa

Tuiloma Susana Tauaâ, National University of Samoa

Helen Tanielu, National University of Samoa

MaryJane Kivalu, University of Otago School of Business

Amanda Hola, University of Otago

Yvette Buttery, University of Otago

Geographers, planners and other urban professionals often conceptualise cities as embodiments of physical spaces that determine the day to day expressions of the life of their inhabitants. But what if a counter narrative is in evidence where the primary determinant of life is not a physical entity but a social and cultural connectivity. Where interdependencies transcend physical boundaries, linking families across cities, countries and oceans as was evident in our research with Pacific Island children in New Zealand and Samoa. In this paper we draw on findings from research with 83 Pacific children aged 3-14, which explored concepts of city, culture and belonging in changing and transnational Pacific communities through photo-voice and interviews. In this presentation, we advance two arguments: first we argue that for these young citizens the dominant narrative is not city living per se, but lives shaped through kinship, culture and trans-national communities. Thus, our second is derived from young people's narratives on their socio-spatial and cultural complexities, which provide new and nuanced insights into the multiple dimensions of young Pacific people's overlooked and unspoken vā (wellbeing) affordances in urban environments. In doing so, we contribute to the understanding of the neglected and under-theorised ways of conceptualising 'cities' liveability' from Pacific children's lived experiences.

The Built Environment and Early Childhood Movement Behaviours: A Latent Profile Analysis, findings from the PLACYE Study

Gursimran Dhamrait, University of Western Australia

Trina Robinson, University of Western Australia

Andrea Nathan, University of Western Australia

Christian, Hayley, University of Western Australia

Background: There is limited research that examines the role that the neighbourhood built environment (NBE) has on the physical health and wellbeing of young children. As the configurations and combinations of different neighbourhood environmental characteristics can interfere with children's movement behaviours, it is important to understand how these characteristics cluster together in Australian cities. This study aimed to determine if features of the neighbourhood and home-yard were interrelated with parental perceptions of the neighbourhood, and if these hypothesised factors resulted in distinct neighbourhood profiles for young children. Secondly, this study aimed to examine how parental perceived environmental characteristics and which objectively measured features of the NBE and home yard were most supportive of different physical activity (PA) behaviours in young children.

Methods: This study included 1,894 children aged 2-5 years who participated in the Play Spaces and Environments for Children's Physical Activity (PLAYCE) study- an ongoing observational cohort study (2015 to current). Children were recruited from 115 Early Childhood Education Centres (ECECs) across the Perth (Western Australia) metropolitan area. A total of 16 characteristics of the home yard, NBE and perceptions of the NBE were examined. Home yard characteristics, total home yard area and total vegetation area. NBE features were measured at a 1600m service area level and included, street connectivity, traffic exposure, type and variety of parks, number of playgrounds, number of recreation centres and proportion of green space and the proportion of blue space was measured via 1600m Euclidean buffers. Neighbourhood perceptions were analysed by the Neighbourhood Walkability for Youth Scale. Latent class analysis, adjusting for the child's sex and age, was used to determine neighbourhood profiles (classes) and relative risks (RR) for their association with children's PA.

Results: {results pending but will be ready in time for the conference}

Conclusion: The findings of this study will highlight the influence of neighbourhood profiles on children's physical activity.

Are our children protected from skin cancer? Setting the table for improved sun protection in New Zealand

Anupriya Sukumar, Lincoln University

Wendy McWilliam, Lincoln University

Andreas Wesener, Lincoln University

New Zealand has one of the highest rates of skin cancer in the world. Over-exposure to ultraviolet radiation (UVR) during childhood has been identified as a significant factor. With climate change, the number of people affected is expected to increase substantially. Protective methods like sunscreen, and protective clothing, are often promoted, but many scholars argue they are inadequate protection. While landscape design of children's play spaces may also play a role, little is known about the extent to which currently designed play spaces protect children from over-exposure. Using school grounds in Christchurch, New Zealand as a case study, we use a mixed methodology of indepth interviews with public schoolyard stakeholders and a novel evidence-based design methodology for evaluating the extent to which Christchurch school grounds protect children from over-exposure. Initial findings indicate that a large percentage of activity areas in schoolyards are unshaded. Furthermore, they are frequently characterised by unpleasant microclimates and poor play opportunities. Recommendations for improved design guidelines for schoolyards in support of sun protection behaviours among children are provided.

Keywords: UVR overexposure; Skin cancer; Climate change; Sun protection behaviour; Landscape design

Belonging through placemaking: Healthy local geographies for new parents living in suburban Aotearoa

Eva Neely, Te Herenga Waka - Victoria University of Wellington

Mirjam Schindler, Te Herenga Waka - Victoria University of Wellington

Local geographies shape the relationship people develop with place, affecting the sense of belonging. People-place relationships vary spatially and temporally. A sense of belonging is important for new parents, who are at risk of social isolation and mental health issues through potentially disrupted mobility to places of meaning. However, little is known about how new parents experience local geographies and how planners can improve this process of placemaking, i.e. building a relationship to place. Limited research focuses on ways in which placemaking might be en-/disabled for new parents in suburbia and therewith create a sense of belonging in place. This research aims to explore how new parents engage spatially with their local geographies in suburban Wellington and which diverse spatio-temporal geographies contribute (or not) to a sense of belonging. Through an online survey and emplaced walking/cycling interviews we record multi-sensory experiences of parents to guide more inclusive city planning. In this presentation we provide survey findings alongside some emergent themes from the walking interviews with new parents.

Sustained Liveable Cities: The Interface of liveability and resiliency

Sara Alidoust, The University of Queensland

Worldwide, there is a growing body of literature on liveable cities. At the same time, different levels of governments have focused on developing policies and plans aimed at improving urban liveability. Traditionally, interpretations of liveability have centred around planning cities that promote health, wellbeing and quality of life, under 'normal' circumstances. Liveability policies and plans have generally disregarded the impacts of unexpected shocks and disturbances on cities. Most liveability indicators only measure the current state of cities and communities. They do not take into account the needs of cities and communities in the face of disruptions.

Applying qualitative methodologies, this paper builds on in-depth semi-structured interviews with researchers and professionals who were involved in planning for urban liveability. This paper argues that the resilience of a city is a necessary condition for its liveability. Only cities that can cope with and recover from disturbances are able to sustain their liveability over time. Liveability policies and plans need to shift to a more pro-active approach and further focus on the resiliency of cities and communities to better respond to future shocks. Interviews suggested that planning liveable and resilient cities needs to be centred around not only human health and wellbeing, but also 'urban equity'. 'Future-proofing', 'responsive city making' and 'evidence-based policies' were also underlined as key principles of developing cities that are both liveable and resilient. As suggested by interviews, it is important to have a broader and integrated view to measure and monitor 'sustained liveability'. Indicators need to measure the integration of urban systems and how innovative, inclusive and robust they are. Implementing these principles was however found challenging, given cities and planning systems are generally inflexible and resistant to change, thus unable to be responsive and innovative in response to disruptions and changing community needs. Insufficient financial resources and a lack of effective collaboration and communication between stakeholders also make it difficult to develop 'sustained liveability' plans and policies, given their multifaceted and multi-sectoral nature. The paper informs and assists decision makers to strengthen policy goals and reduce inequities within and across cities, in 'normal' periods as well as during and after disruptions.

Why measurement of liveability in Australian cities is not enough and examples of how the Australian Urban Observatory is supporting urban and health policy application

Davern Melanie, RMIT University

Alan Both, RMIT University

Rebecca Roberts, RMIT University

Ori Gudes RMIT University

The Australian Urban Observatory (auo.org.au) is a digital liveability planning platform measuring and monitoring liveability down to the local neighbourhood level across the 21 largest cities of Australia. Established in 2020, liveability indicators included in the Australian Urban Observatory are guided by a comprehensive definition of liveability with the digital portal developed and co-designed overtime in response to the needs to policymakers. This presentation will discuss the importance of co-design with decision makers in any indicator system designed to support research translation. It will also demonstrate a range of resources and tools developed in the Australian Urban Observatory to support the translation of liveability indicators into policy and argue that indicators and evidence alone are not enough to support the critical issues of health and urban policy development.

Healthy, liveable, and low emission neighbourhoods, towns, and cities? - evidence and opportunities for change in Aotearoa

Vivienne Ivory, WSP Research & Innovation

Daniel Cooper, WSP Research & Innovation

Greenhouse gas (GHG) emissions from urban areas are one of the main drivers of climate change. We need to change the way our urban environments are designed, built, and used if we are to reduce emissions. At the same time, we want emission-reducing changes to enhance health and liveability. Useable evidence can play a big part in determining how best to intervene. Where are the evidence-based opportunities for neighbourhood-to-city scale interventions that both deliver emissions reduction and contribute to well-functioning neighbourhoods, towns, and cities?

Funded through the BRANZ Research Levy, the project was guided by decision-makers' needs to build a useable evidence base. Our evidence review found national and international examples of neighbourhood to city-scale interventions included urban greening, creating denser urban form, encouraging people to use cycling and public transport, using smart construction technologies, low emissions energy, and introducing more efficient wastewater and stormwater systems. Co-benefits included health, liveability, cost savings, and air quality. We identified three priority pathways to address emissions and health and liveability through interventions:

1.   Greening urban environments can be achieved through small-scale community-led interventions as well as broader-scale national and local authority initiatives.

2.   Changes to a low carbon design and operation of infrastructure networks can have far-reaching consequences for reducing embodied and operational emissions and support wide-scale emission-reducing behaviour change.

3.   Increasing the compactness of urban form offers multiple avenues to reduce emissions through behaviour change, material use, and resource efficiency, and when done well, could ultimately improve the quality and functioning of Aotearoa's neighbourhoods, towns, and cities.

However, we found a mismatch between the information available in the evidence and what decision-makers need to answer the question how well would it work here? Research methods and quality, and methodological and contextual information varied considerably, limiting transferability and effectiveness assessments. Complementary practice reviews of real-world

cases with limited evidence identified strategies included sourcing knowledge through connections, valuing different ways of knowing, and actively generating evidence that can be used, even if it is not perfect.

The published evidence was collated into a searchable map where users can see study locations, access study details, and use search filters to find and compare relevant interventions. Recommendations include better supporting the capacity of decision-makers to acquire, access, assess, and interpret evidence for local conditions, even where there is uncertainty. In the words of one practitioner, evidence needs to be 'accurate enough to act'.

Developing a new fast-food indicator to address urban health complexities

Gudes Ori, Research Fellow

Melanie Davern, RMIT

Alan Both, RMIT

and Rebecca Roberts

Fast food consumption has become a prevalent trend in urban areas, and its impact on health and well-being has been a growing concern. However, in Australia, many areas and especially low socio-economic areas characterised by many unhealthy food outlets, poor access to fresh fruit and vegetables, and few opportunities to be sufficiently physically active. The number of children either overweight or obese is a global public health epidemic. Just in Australia, around 25% of children are overweight or obese. This trend is worrying, as obesity in childhood and adulthood is strongly linked.

The UN Sustainable Development Goals cemented the global focus on increasing the development of healthy built environments. In Australia, this global recognition has brought the built environment and health professionals into a closer working relationship. For example, the Australian Urban Observatory (AUO) RMIT aims to better understand and address urban and health issues through data analytics and community engagement. One of the key areas of focus for the AUO is to measure the impact of fast-food consumption on urban populations. The AUO also provides access to data visualizations and mapping tools that can help policymakers and planners better understand the distribution of fast-food outlets and other urban features.

A recent literature review found that one of the most used indicators are the densities of fast-food outlets, proximity to schools and residential areas, and the socio-economic status of the surrounding community. However, these indicators have limitations and do not fully capture the complexities of fast-food consumption patterns in communities. For those reasons, recently the AUO developed a new fast-food indicator that captures the average distance from each mash block centroids (the smallest geography unit available by the ABS) to the nearest fast-food outlet. Our study also provides practical guidelines (including open-source code) of how data was spatially scrapped (over 5000 records Australia-wide), filtered, analysed, visualised, and ultimately ingested into the AUO to be used by policymakers.

We conclude the study by suggesting that Increasing access to health data and more readily available analytical tools offer new opportunities to tackle ever-growing rates of obesity (risk factors for chronic diseases). Our study also suggests that future research should incorporate a

broader range of indicators and explore innovative approaches to address the complex issue of fast-food consumption in both urban and non-urban areas.

OHI Data Navigator: a focus on hauora for rangatahi in Murihiku

Ben Ritchie, Nicholson Consulting

Ta'ase Vaoga, Te Rourou One Aotearoa Foundation

Since 2018, Te Rourou One Aotearoa Foundation (Te Rourou) and Nicholson Consulting have worked in partnership - along with Centre for Social Impact and Deloitte - to develop OHI Data Navigator (OHI), an online tool that presents quantitative data about the experiences and circumstances of rangatahi (young people aged 12-24) living in the regions, towns, and cities of Aotearoa. http://www.datanavigator.nz/

OHI is built on data from StatsNZ's Integrated Data Infrastructure (IDI), bringing together government department data, including interactions with Oranga Tamariki, the justice system, and education and employment experiences - along with wellbeing data from Te Kupenga and the General Social Survey.

We will present on the application of principles of Māori Data Sovereignty and holistic wellbeing frameworks in the development of OHI, which help to ensure that this potentially stigmatising and retraumatising data is presented in a manner that protects the mana of rangatahi and communities, and which keep us safe as Māori researchers.

We will also discuss the process by which OHI has led Te Rourou to move from a national to a local focus - specifically on Murihiku, the Māori name for the southern South Island - by revealing the scale of systemic inequity faced by rangatahi in Aotearoa, and by identifying localities with large populations of underserved rangatahi, such as Invercargill's South City.

Our presentation will be illustrated by quantitative and qualitative findings from our analysis of the OHI data, and from our engagements with the young people of South Invercargill and Bluff, and the communities that work with them.

Kia kaha, kia manawanui: The role of Māori in creating strong, resilient communities

Amber Logan, Otago University, Department of Public Health

Eva Morunga, ADHB/ The University of Auckland

The Māori people have a long history of innovative, Māori-led resilience initiatives that support the ability of the communities to withstand, adapt to and recover, thereby significantly contributing to community wellness. In times of adversity, Māori and marae have acted as 'resilience hubs' that serve the community, support the people and facilitate resource distribution and services. Marae have also acted as 'resource reservoirs' of skills and expertise, food, equipment and facilities that may be used for hui, tangi, wānanga and other important events. When harm threatens the community, however, these resources can be quickly deployed to address the need at hand, providing food, shelter and services to the wider community. Acting as the embodiment of manaakitanga, Māori ways of being, knowing and doing have brought Māori-led initiatives to the fore during critical, life-threatening events. There is the essential recognition of mana, dignity and self-esteem. Manaakitanga is a fundamental tikanga of te ao Māori and the ability to provide manaakitanga to others is a key positive wellness indicator for Māori.

This presentation examines the role of Māori and marae in the creation of community resilience, and the key factors that facilitate such successful initiatives, with specific emphasis on principles and concepts of wellness that stem from te ao Māori -the Moāri world. Using case study analyses from the Covid-19 pandemic and the recent cyclone Gabrielle, the key benefits that traditional Māori organisation principles and infrastructure bring to urban centres are highlighted and recommendations made for future directions in the creation of health-promoting and resilient communities.

Building back healthier? City planning responses to COVID-19 in Melbourne

Melanie Lowe, Centre for Urban Research, RMIT University, Melbourne, Australia

Hannah Morrice, Child and Community Wellbeing Unit, Melbourne School of Population and Global Health, The University of Melbourne, Melbourne, Australia

Merrick Morley, Melbourne Centre for Cities, The University of Melbourne, Melbourne, Australia

Bell, Sarah, Melbourne Centre for Cities, The University of Melbourne, Melbourne, Australia

The COVID-19 pandemic has disrupted urban lifestyles, social-ecological systems, and use of urban spaces, creating resilience challenges but also opportunities to plan healthier and more resilient cities. For example, city planning interventions to improve public open spaces, and support active transport and high quality higher-density housing can have co-benefits for prevention of both infectious and non-communicable diseases. This paper aims to examine the health and resilience implications of city planning responses to the COVID-19 pandemic, using Melbourne, Australia as a case study. We conducted a review of academic literature, to explore international best-practice for planning healthier and more resilient cities in response to COVID-19. This informed content analysis of Victorian state government and City of Melbourne local government urban, transport and COVID-19 response policies adopted or amended between January 2020 and November 2022. Policy documents were analysed for the types of policy changes made due to COVID-19, and their implications for infectious and non-communicable disease risks and longer-term resilience. City planning responses in Melbourne predominantly related to public space adjustments to enable physical distancing, outdoor dining, fast tracking of new cycling lanes, creating pedestrian-friendly streets, addressing housing affordability and homelessness, and greening the city. While most of these responses are consistent with evidence on planning healthy, resilient cities, they did not represent a major shift in city planning approaches, and some changes were short lived. Melbourne's city planning responses to the pandemic reflect the tendency to favour 'bouncing back' resilience, rather than socioecological urban resilience, which aims for positive evolution and transformation of urban systems in response to disruption. Drawing on the literature, we develop recommendations for city planning that prevents future pandemics and builds resilience to other shocks and stresses.

Facilitating social cohesion in rapidly densifying neighbourhoods: A case study on inner suburban Sydney, Australia

Edgar Liu, City Futures Research Centre, UNSW Sydney

Hazel Easthope, City Futures Research Centre, UNSW SYdney

Sophie-May Kerr, City Futures Research Centre, UNSW Sydney

In recent decades, urban consolidation and inner-city densification have frequently been used to concurrently revitalise former industrial sites and provide new housing for ever increasing populations. While questions over gentrification and displacement remain, newer models of delivery have sought different ways to minimise such negative impacts while ensuring the economic viability of these projects. These include the deliberate mix of urban forms and functions within neighbourhoods that mimics naturally occurring communities to achieve social sustainability. Proponents of such mixed-use developments boast benefits ranging from improved access to a wide range of services, reduced levels of social segregation and social inequality, increased neighbourhood vitality and levels of social interactions, and improved levels of safety through passive surveillance. While some measures exist that track the progress of densification, economic activities, and changes to safety, other metrics including social cohesion and social interaction are less commonly reported. This paper responds to this gap with empirical insights from a major renewal site in inner suburban Sydney, Australia. Specifically, it reflects on the results of three consecutive community surveys conducted between 2017 and 2023 from the Ashmore and Green Square redevelopment precincts, to reveal how residents experience social cohesion and interact as their neighbourhood goes through rapid densification. The surveys reveal how such experiences changed over time, as well as how the local government introduced and adjusted community programs and infrastructure in response to the surveys' findings. It highlights the roles of strategic planning, community development, and political investment in such major redevelopment projects. The paper concludes with reflections on mechanisms that may help ensure positive social outcomes for communities living in dense, mixed-use developments.

Citizen Science for Cooler Schools (CS2): Improving heat resilience in educational settings

Tony Matthews, Griffith University

Shannon Rutherford, Griffith University

Harry Kanasa, Griffith University

Bach, Aaron - Griffith University; Zhang, Fan - Griffith University; Bailey, Mark - Griffith University

Increasing heat intensity, frequency, and duration relating to a changing climate poses risk to many populations. Impacts are experienced across numerous settings where people live, work, learn and play. The CSIRO and Bureau of Meteorology predict the number of days over 30 degrees will not only increase in the future during summers, but also during spring and autumn-coinciding with significant periods when students are in schools. This will be particularly challenging for many schools in Queensland, already a hot state with many environmental vulnerabilities and extreme events. A pilot research project led by Griffith University, funded by the Queensland Department of Environment and Science and with input from the Queensland Department of Education, aims to facilitate school-based assessment and response to extreme heat to develop heat-resilient school communities. While all administrative and learning spaces in Queensland are air conditioned, there are outdoor (eating areas, playgrounds, drop off zones) and indoor gathering and recreational spaces (gyms, halls, common spaces) where cooling would be beneficial. The research team works directly with Science/STEAM clubs and teachers at two case-study primary schools in Southeast Queensland to co-design inquiry-based heat and vulnerability assessments, leading to heat resilience plans for the schools. The key project aim is to design and test school-based activities that facilitate student use of temperature and humidity monitoring data. This is used to explore a range of heat mitigation strategies within their school communities. Outcomes for pilot schools include an engaging project on a contemporary topic with support of educational and content experts. Each also receives a student driven, scientifically rigorous heat resilience plan for the school community to consider. Project outputs for broader research and practice communities include an inquiry-based STEAM activity to engage and educate primary students on climate and heat risk and mitigation actions. Further, a new toolkit can be utilised by other schools to assist with mitigating heat risk in their own school communities.

Public Architecture as Therapy - A Qualitative Research

Yawen Sephira Luo, University of Sydney

The contribution of urban open spaces to subjective well-being has gained significant awareness after the global pandemic. The notion of well-being as a social sustainability strategy has also become a timely issue in the post-pandemic social environment, reshaping social connections between people and urban spaces. The shifting paradigm of social interactions in urban public spaces calls upon a renewed design framework towards public architecture. This study first explores a new conceptualisation of public architecture: a critical spatial practice curating architectural facades and adjacent open spaces to promote subjective well-being. It is crucial to analyse the current development of neighbourhood-level design intervention in urban neighbourhoods to investigate the application of such conceptualisation. The two-part qualitative study focuses on urban neighbourhoods in Sydney and Melbourne, the two largest Australian cities with over ten-million population.

The first stage of the comparative case study is a preliminary observation of four urban public sites in Sydney and Melbourne that demonstrate characteristics of curated public architecture. Preliminary observation involves a naturalistic observation that enables real-time data collection on how people socially interact in a case study site with minimal interference in their daily routines. The selected case study locations will form two comparative pairs for effective and less effective precedents. "Effective" precedents portray a socially sustainable design model in urban public space engagement and display some curatorial techniques in promoting well-being with public architecture. The "less effective" precedents demonstrate existing neighbourhood engagement design practices that are less popular to the general public or less influential in neighbourhood subjective well-being promotion.

The second stage is semi-structured interviews with frequent visitors of selected case study sites. The semi-structured interviews encourage further discussions and a chance to gather in-depth qualitative data from frequent visitors to understand how public architecture can promote subjective well-being on a neighbourhood scale. With pre-set open-ended questions, respondents are invited to discuss the relevance of the core research questions extensively.

Combining these two qualitative research methods will provide a comprehensive understanding of the current public architecture design and how the urban built environment impacts subjective well-being with spatial, visual, and social data analysis.

The effect of different landscape elements on visitors' mood states in the Victoria Park, Auckland

Hanie Okhovat, University of Technology Sydney

Ahmadreza Ghasemi, TLC Modular

Given the significance of urban parks in improving the physical and mental health of visitors, many scholarships have addressed it. Most of them claim that there is a direct relationship between nature and the improvement of visitor's health and mood. These accounts consider urban parks as an entire green space, and they hardly ever point to the impacts of landscape elements on physical and mental health. Considering the necessity of the impact of the landscape elements on the mood states of the visitors, this article considers the urban park with its various landscape types. Victoria Park in Auckland, New Zealand has been chosen as a case study given its specific features. This Park has an extremely large urban park with many visitors in it. Therefore, it provides diversity and a greater number of visitors for the research. Furthermore, Victoria Park contains various landscape elements, and this is an advantage that well matches this research. In this study, five different landscape elements and spaces, including footpath with old trees, the sports field, the footpath under the motorway, the footpath with tile artwork and the wooden sculpture's part have been selected. The research method is descriptive survey research. According to the research hypothesis that there are possible changes in the mood of visitors when involved with different elements of the landscape, the POMS questionnaire has been considered. Questionnaires are distributed in Victoria Park in the evening time for three days and then are collected. The Wilcoxon test and Kruskal-Wallis test are used to analyze the mean of mood state data. The statistical analysis is done by SPSS version 22 and P-value <0.05 is used to show the statistical significance of the results.

Health, Liveability and Sustainability: Approaches to planning urban airport regions

Alana Crimeen, University of New South Wales

Robert Freestone, University of New South Wales

Evelyne de Leeuw, University of New South Wales

Prioritising health and wellbeing against other agendas is challenging particularly for places undergoing rapid urban development. Airports can be lighting rods for conflict between decision-makers and communities over health and social disruptions. Airport construction and operation have multiple impacts: natural environments, built environments, employment patterns, economies, transportation networks and social infrastructure. These effects may be detrimental or beneficial to the populations that live, work and play within the airport's footprint. As airports and their associated infrastructure are prioritised for economic, city branding and globalisation benefits, development strategies increasingly aim to closely integrate airports with urban regions. According to Airports Council International, 57% of the currently planned 300 global greenfield airport developments are within the Asia-Pacific region. In airport-focused regions, the development priorities and special planning requirements of the airport will impact the use of health promoting urban planning strategies. Reviews we conducted of policies created by representative airport and aviation industry organisations have found increasing trends towards policies and programs focused on liveability, sustainability and quality of life. However, the extent to which health promotion principles and approaches are incorporated into the planning of airport regions is uneven. In 2023 we conducted interviews with airport-related decision-makers to explore their perspectives on urban health as mediated through the sustainability, liveability and regional integration models now in play in airport development. Our participants included airport planners and developers, industry representatives, academics and urban planners. The interviews identified the presence and place of urban health concepts and approaches in the practice of developing urban airport regions. The findings are set against broader urban development and health promotion models to interpret the weighting and meaning given to health in airport-focused regions. The scale of urban change being driven by airport development is enormous. This work contributes to understanding how airport development strategies either align or diverge from health promoting planning and policy approaches. City agendas continue to prioritise urban airports, so it is vital that urban decision-makers are centralising health within their planning practices.

Conceptualising community and connection in planning

Kroen Annette, RMIT University

Andrew Butt, RMIT University

High levels of social isolation are evident in Australia and understanding what encourages and supports social connection has become significant in research and policy. Different disciplines study social connectedness (e.g. public health, sociology, psychology, business, community development, urban planning) with varied focus and descriptions of social connection. This paper focuses on social interactions between people as one element of social connection and how planning can facilitate these.

Social connection has the potential to positively affect health and wellbeing, its absence can lead to mental and physical health problems. While not all community-life is place-based, people still have ties to their local area and are still interested in (an often ideated) local community. Additionally, for people with limited mobility and/or resources local connections are still of high importance (Lloyd et al., 2016; Rosenblatt et al., 2009). Thus, a place-based approach to social connection is still relevant, and communities with evident social connectedness are more resilient and better able to respond to disruption and natural disasters (Nicholls et al., 2017).

Drawing on a literature review and interviews with twelve planners in three of Melbourne's interface councils, this paper explores how 'social connection' is understood and expressed in planning and urban design. The focus of this paper are suburbs on the urban fringe, as these often have fewer and less established amenities and community infrastructure than inner and middle suburbs. They also exhibit more dispersed residential context and diverse urban types, including new greenfield sites and established rural townships and a highly diverse population which includes isolated youth and older people, new migrants, and lower income households for whom social connection is particularly important.

The paper examines semantic challenges in addressing social connections in urban policy, including, how concepts of social and community connectedness are expressed and how this aligns with other policy domains and disciplines. It also explores the boundaries of urban planning in influencing social connection.

City Governance

Hot City Futures: Climate Governance in Transition

Wendy Steele, RMIT University

John Handmer, International Institute for Applied Systems Analysis (IIASA), Vienna, Austria

Ian McShane, RMIT University

The future is being shaped by a warming climate and rapidly urbanising world. The result is an increase in extreme heat waves, droughts, floods, storms and catastrophic fires impacting cities and their more-than-human communities. This article explores new climate governance trajectories and transdisciplinary ways of seeing 'hot city' futures in transition at this critical juncture in history - as the world races to keep global warming below two degrees. By bringing together academic research, speculative design, artistic visions and practical policy from diverse local and global contexts, we draw attention to the radically creative and ethically innovative governance responses to the urban heat problem that are urgently needed in Australasian cities and regions. Humanity's relationship with Earth comes with responsibilities of care and repair that pass to next generations and all forms of life. Cities, despite all their problems, emerge as likely to be the best and safest places to be in the climate and heat challenged near future. How decisions are made, and communities are engaged is critical to understanding and improving climate governance in transition.

Comprehensiveness and coherence of Australia's climate change action plans

Allan Pimenta, Ph.D. Candidate at Monash University

Md. Liton Kamruzzaman, Associate Professor at Monash University

Policy integration refers to both horizontal sectoral and vertical inter-governmental integrations in policy-making. The three levels of Australian governments (national, state, local) show some sense of commitment to climate change. However, little research has been conducted to examine the strengths/comprehensiveness of such commitments and their level of coherence across the government levels. This study addresses these gaps in the literature by reviewing climate change action plans (CCAP) across the three levels of governments in Australia. Five local government areas (Sydney, Melbourne, Brisbane, Adelaide, and Perth) were respectively selected from five states (New South Wales, Victoria, Queensland, South Australia, and Western Australia) containing more than 1 million people to study their CCAPs. A two-step analytical procedure was applied to answer the research questions: i) a CCAP comprehensiveness assessment framework was developed comprising of 21 criteria (e.g., identification of potential climate risks for the jurisdiction, cost estimation of actions) and the strengths of the CCAPs were evaluated against these criteria; and ii) a synergy assessment framework was developed to examine the extent to which the CCAPs at two different government levels are integrated. Results indicate that the comprehensiveness of different plans are: National 81%; New South Wales 74%, Victoria 86%, Queensland 73%, South Australia 68%, Western Australia 59%, Sydney 90%, Melbourne 74%, Brisbane 55%, Adelaide 55%, and Perth 27%. A high level of synergetic relationship was found between the national and different state levels (all scored above 70%). However, wider variations in synergies were observed between the states and their corresponding local levels with Sydney-New South Wales scoring the highest (90%) and Perth, Western Australia, scoring the lowest (35%). These findings provide valuable insights into the current state of isolated nature of CCAPs in Australia and enable to design more comprehensive and integrated policy actions across all levels of governments.

Renegotiating landuse and social license in the age of climate change: case studies from Hawkes Bay

Hannah Gully, Massey University

This research examines the implications of poor land use planning and the effects of climate change, particularly in peri-urban Hawkes Bay, New Zealand, following the aftermath of Cyclone Gabrielle. The research focuses on the renegotiation of the social license to operate (SLO) associated with peri-urban landuse, and the role of planning systems in creating maintaining and challenging particular SLOs. The Hawkes Bay region was chosen as the focus area due to its vulnerability to climate change and recent effects of Cyclone Gabrielle that caused immense physical and social damage and flow on pressure on planning decision making. The research seeks to contribute to a deeper understanding of how SLOs evolve and intersect with planning systems under the conditions of climate change. Drawing on document analysis, and key informant interviews, the research reflects the complexities of the social license to farm and how planners can facilitate sustainable landuse planning, particularly after a natural disaster and in the face of climate change.

Maximising climate governance for liveability: Heat mitigation in Western Sydney, Australia

Nicky Morrison, Western Sydney University

Patrick Harris, Western Sydney University

Vanita Yadav, Western Sydney University

Karla Jacques, University of New South Wales

Judith Bruinsma, WSROC (western Sydney regional organisation of councils)

Kelly Gee, WSROC (western Sydney regional organisation of councils)

Liveable communities are those that are vibrant, sustainable, healthy, and safe for all community members. Given the world has all but locked in a 1.5 degree increase in global warming, climate related events and their impact on health and wellbeing are an increasing threat to liveability. Predictions of more frequent, severe, and prolonged heatwave events require that government, non-government agencies, and local communities are fully prepared. Yet governance for heat risk reduction and management remains far less developed than for other climate related hazards, like bushfire. Drawing on Western Sydney as the prime case study, the aim of this research is to examine the ways in existing governance arrangements could be improved, through clarifying roles and responsibilities for state, local governments, and community organisations, improving integration, and recommending more effective multi-agency working practices.

Western Sydney, Australia's fastest growing population, is already at risk of excessive heat than other areas of Greater Sydney Metropolitan Area and Australia. Over the past few years, heatwaves have impacted heavily on Western Sydney's liveability. Combined with rapid urban development, the already hot climate is being exacerbated via urban heat island effects. Western Sydney's socio-economic and demographic make-up further compounds individuals and communities risk and vulnerability to heat related impacts (Morrison et al 2021).

The research underpins the work led by Western Sydney Regional Councils (WSROC) Heat Smart Resilience Framework that argues that better governance is core to implementation. Drawing on a multi-agency adaptive governance framework, the research has developed a series of 'learning by doing' co-designed stakeholder workshops that centred on how to deliver effective governance structures to facilitate place-based community resilience to heat. Addressing

liveability-focussed governance is not only beneficial for local communities in Western Sydney, but salient lessons can be drawn for other states and international community grappling with climate adaptation.

Uncommon Commons: What can "public" places learn from "private" parks?

Suzanne Vallance, Landcare Research Manaaki Whenua

Sally Carlton, Lincoln University

Inner City East of Christchurch is often described as 'deprived' and, to be fair, Linwood Village sandwiched between Worcester Street (with its upgraded cycleway) and Gloucester Street has more than its share of vacant shops, graffiti and other signs of neglect. In this paper we draw on research conducted in the village in 2021/22 on improving public space. This led us to compare two roughly similar sized 'parks', one of which is a council-owned and managed 'public' reserve, the other a collaborative pop-up called Tiny Shops on 'private' land. Of particular interest are the very different approaches to governance of the two sites and, in this presentation, we reflect on the implications of these different approaches for empowerment, stewardship and activation of urban commons. Based on this research, we propose implications for urban greenspace generally, connecting our findings with to the Parliamentary Commissioner for the Environment's recent (2023) report Are We Building Hotter, Harder Cities which details threats and opportunities for greenspace provision in cities. We conclude that while the bio-physical aspects of cities are indeed important, their co-location in urban areas means they must also meet the needs of residents. We conclude that our current urban greenspace governance processes are inadequate and suggest three ways re-sowing the commons: reservations on reserves, leaky budgets and nurturing the seeds of citizenship.

A Systems Approach to Governance of Urban Gardening Policies on Public Gardens in Sydney

Kristina Ulm, University of New South Wales

Tomatoes and parsley are growing along the streets and in nature strips in Greater Sydney, Australia. Citizens take over public land to green their neighborhoods, thus, cooling the urban climate and increasing biodiversity. These small-scale public gardens can bring people together, educate and showcase local food and indigenous plants. Thus, public gardens can contribute to healthy and sustainable cities.

But is gardening along sidewalks illegal guerrilla gardening or legally supported community-greening? It depends on the starkly differing approaches of local governments. While governance of more established forms of urban gardens, like community gardens or allotments, has been well researched, there is a lack of governance studies on these emerging but often informal public gardens.

The complex co-governance of public gardens, privately gardened space in public open space, requires new methodologies. Consequently, in this research we developed a novel systems approach for the analysis of local governance. Systems thinking theories and governance theories are combined into an interdisciplinary framework on complex governance processes. Elements of it include the actors' relationships, the decision-making processes, and the underlying belief systems. The qualitative systems approach is applied to varying policy settings across Greater Sydney. Data is collected from policy documents, semi-structured interviews, and participatory systems diagrams. Qualitative data collection enables the various governance systems to be studied from the viewpoints of the diverse actors.

This study shows, that while some local governments tolerate public gardening without an official policy, others create policy instruments to formalize the contested practice. These policy instruments vary from enabling guidance to restrictive permit fees. Further, the results of this ongoing PhD research suggest that the governance systems around public gardens are conceptualized differently by each involved actor. Underlying values and perceptions inform governance participants' decision-making and actions.

Public gardens are at the interface between public and private, beyond a dichotomy of top-down and bottom-up. Their governance systems range from citizens' self-governance with little government interference to government-initiated environmental gardening programs.

Thus, the governance of public gardening is a case where different forms of collaboration and sharing responsibility between government and communities can be tested. This research illustrates possible transitions from traditional planning tools, like master planning mono-functional precincts, to innovative multi-sectoral policies for collaborative and multifunctional interventions. Further understanding of these emerging policy innovations is required to empower communities in co-creating inclusive, healthy, and climate-adaptive urban neighborhoods.

Why Funding and Governance Tools Inhibit Urban Greenspace Provision: An International Comparison of Municipal Greenspace Managers' Insights

Chris BOULTON, Griffith University, Cities Research Institute

Aysin DEDEKORKUT-HOWES, Griffith University, Cities Research Institute

Cities of Australasia are lagging in their response to climate change as a slow, global emergency. Within our cities that experience constant change and multiple challenges, our greenspace practitioners are confronted by increasing expectations for what urban parks must deliver. Sharing the insights of our colleagues in municipal government about these challenges, we discover that issues of climate change are seldom explicitly reported as influencing urban greenspace provision. Likewise, the issues of resources scarcity, biodiversity loss, sustainability, health and safety, and population growth, are scant. Attempts to consider these expectations by municipal governments with limited, contested resources are thwarted when they are forced to operate within the confines of planning laws, regulations, and policy. In this context, these governance tools are not only less than helpful, but they are also part of the problem. Much research has focused on the demands for more urban greenspace; far less has examined issues concerning supply. This presentation highlights new insights from our ongoing examination of the current approach to providing urban greenspace, and the key factors that influence the outcomes.

We surveyed 82 local government officers/officials from six Anglophone countries including Australia and New Zealand about their experience providing municipal greenspace. Findings suggest that municipalities in Oceania focus on providing new urban greenspace whereas in the British Isles and North America the focus is on enhancing existing urban greenspace. While financial resources are the most prominent factor shaping urban greenspace provision, State/Provincial planning legislation, open space policy, and municipal park budgets (as types of governance tools) are also highly influential. Municipal greenspace providers are required to comply with legislation and policy; however, limited funding for land acquisition, facility development, and maintenance is a significant barrier in providing urban greenspaces. Revealing challenges greenspace managers face in delivering adequate urban greenspace and facilities that respond to global challenges of resources scarcity, climate change, and population growth, these findings question the efficacy of the current planning approaches embedded in planning legislation, municipal greenspace plans and strategies.

Developing tools for the rapid analysis of land value impacts in rezoning scenarios

Reg Wade, City Futures Research Centre/UNSW Sydney

Chris Pettit, City Futures Research Centre/UNSW Sydney

Bill Randolph, City Futures Research Centre/UNSW Sydney

There is a renewed interest in how the value generated from the planning approval system might be better shared between private and public stakeholders to fund the public infrastructure needed to support the outcomes of the development process. At present, the use by planners of feasibility assessments to estimate the amount of value uplift generated by new development, and therefore the quantum of value that can be negotiated over, remains limited. Other than employing consultants to undertake the assessments, there are few tools available to planners to quickly make an estimate of the value uplift planning proposals might generate.

This presentation outlines a novel methodology for conceptualising the value uplift associated with future development of residential land. The model is designed as a flexible system which provides its users with the ability to rapidly evaluate the residual land value (RLV) impacts on a large number of land parcels at once, under variable scenarios for zoning and density, and based on user-customisable built form typologies.

An early version of the model has been embedded within a planning support system (PSS), the RAISE toolkit v2, and the functionality of the tool is demonstrated through a hypothetical use case in Sydney, Australia. Preliminary feedback from an ongoing process of user evaluation and testing on the utility of the model is presented. The presentation concludes by outlining the benefits of the underpinning planning control model, which includes evidenced-based rapid assessment of planning proposals and greater transparency of the value released by the process of granting development rights.

Healing the Culture of Collaboration: A Values-Rules-Knowledge approach for reframing community engagement in urban waterways management

Ethmadalage Perera, Swinburne University of Technology, Melbourne

Magnus Moglia, Swinburne University of Technology, Melbourne

Stephen Glackin, Swinburne University of Technology, Melbourne

Purpose:

Urban waterways are complex and unpredictable social-ecological systems, and their governance require coordinated action from multiple actors, including many in the community. Therefore, no actor or stakeholder group can manage urban waterways independently and resiliently. Instead, it requires collective effort and collaboration between and within institutions, societies, disciplines, and sectors. The role of communities in managing urban waterways is therefore generally considered important, but their role is unclear and limited due to various institutional, socio-cultural, and legislative factors. Therefore, there is a need for a more comprehensive and integrated understanding of involving communities in urban waterways governance. This paper reports on key insights from three and a half years of study of the collaborative culture for meaningful community engagement in urban waterways management, including two case studies in Melbourne.

Design/methodology/approach:

Through this study, we used qualitative research methods: systematic literature review of academic literature, analysis of industry and policy documents, and semi-structured interviews. To analyse the data, we used thematic analysis, i.e. coding and thematising data qualitatively. Conceptually, these help identify causes of tensions, and support the reframing of the current method for community engagement towards a more collaborative approach. The study is framed around the Values-Rules-Knowledgeï¾heuristic, previously used primarily in climate adaptation research. This system heuristic was applied to decision points and analysed the data. The study was also shaped and influenced by resilience thinking.

Findings:

The literature review shed light on a need for a comprehensive investigation of the intention-implementation gap of community engagement in urban waterways managementï¾leading to identifying root causes and effects of further extending or lessening

this gap. We found diverse factors leading to three key dilemmas of implementing effective community engagement or widening the intention-implementation gap in urban waterways management and influence on city health. Further, we offered immediate, medium and long terms recommendations to unlock the significant transformative capacity of effective community engagement.

Practical implications and contribution to knowledge:

The case study investigation explores real examples of state-of-the-art community engagement, but found a set of tensions and dilemmas that need to be addressed if community engagement is to be embedded into urban waterways governance constructively, such as power imbalances, bureaucratic processes, inadequate resources and noncomprehensive methods impact the practicality of effective community engagement.

We think that our study can potentially contribute to transforming the conventional community engagement paradigm into a novel approach, i.e., a value-led adaptive collaborative approach.

Pursuing water emancipation through grassroots governance on uneven urban waterscapes.

Alexandre da Silva Faustino, RMIT University, Centre for Urban Research

Grassroots activism has been proposed and debated by political ecology and radical planning as critical political arena for the engagement of subjects in the governance of their territories. However, there is much to be understood from situated examinations of grassroots relational agency in shaping places and systems of governance. This article explores the concept of grassroots co-creation of waterscapes as a means of political empowerment and water emancipation for marginalised communities in uneven waterscapes. I argue argues that through their collective mobilisation and actions, grassroots actors can participate in the transformation of both tangible and intangible aspects of their waterscapes, ultimately reconfiguring the possibilities, tendencies, and outcomes of the waterscapes they work with. In this paper I draw from two study cases with a Guarani Indigenous community and an urban riverine community from Sao Paulo, Brazil, who have engaged in grassroots practices to improve their water security and challenge hegemonic tendencies in spatial production and subjugation of nature/water. Through an analysis of the socionatural production of uneven waterscapes in the peripheries of Global South this paper highlights key socioecological injustices emerging from extractive and settler-colonial urbanisation. The emergence of grassroots activism is situated on the grounds of precarity and structural abandonment experience by these communities, and therefore important practice to establish pathways for improvements in their conditions of living. The paper highlights the importance of collaboration, negotiation, and alliance-building in achieving these goals, setting up contexts of grounded co-governance of waterscapes that participate in formal and alternative governance spaces. Water emancipation is discussed not as an absolute achievement, but as a succession of frictions undergone by marginalised communities via political struggle in order incrementally reduce their exposure to water insecurity, hazards, and societal pressures. In these terms, the author endorses the assertion that social action is a crucial strategy through which people co-produce opportunities to reframe water governance systems. The article concludes that the co-creative participation of grassroots actors in their waterscapes can have far-reaching effects beyond their localities, inspiring alternative modes of human existence with Country and water and nurturing a growing movement invested in regenerating human-water relations.

Toward water sensitive cities: Aspects for sustainability transitions

Rachel Teen, Waterways Centre, University of Canterbury

Edward Challies, University of Canterbury

Lin Roberts, Lincoln University

The adequate provision of water, energy, transport, and housing is intrinsic to the successful functioning of urban environments. These sectors are created and managed at ever-changing intersections; therefore, this multi-layered management requires efficient, transparent and integrated management of urban environments.

Strategy occurs at organisations' executive and senior management level over the short-, medium- and long-term. Accordingly, effective strategising integrates extensive networks of influence and inter-relationships to make well-informed (in)formal decisions. The process of 'strategising' involves focusing on the institutions and actors involved in strategising and decision-making- their interconnections, situatedness, and the frameworks that influence them.

This study aimed to contribute to our understanding of agency, strategic practices, and institutional contexts that enable transitions to more sustainable and water sensitive cities. The research sought to ask how urban water management (UWM) career choices and values influence UWM strategists, how UWM strategists practice UWM strategising, and how UWM strategists shape their institutions to achieve sustainable urban water management and vice versa.

A comparative case study approach was applied, using data from semi-structured interviews with Christchurch and Melbourne's past and current executive and senior UWM strategists. The analysis method utilised a strategy as practice perspective and elements of critical institutional theory. Findings support previous UWM scholarship and reveal new aspects that can help create sustainability transitions towards more water sensitive cities.

Cities under COVID-19: a systems perspective

Philippa Howden-Chapman, New Zealand Centre of Sustainable Development, University of Otago, Wellington

Franz Gatzweiler, United Nations University Institute, Macau

Rachel Cooper, Lancaster University, UK

Isaac Luginaah, University of Western Ontario, Canada

During COVID-19, fifteen members of the International Science Council Urban Health and Wellbeing Committee, from Brazil, Cameroon, Canada, China, Cuba, EU, Finland, Gaza Strip, India, Nepal, New Zealand, Nigeria, Sri Lanka, the UK and the USA, analysed the ways their cities coped. The city populations had contrasting patterns and levels of health and wellbeing, tied to their distinctive political, economic, social and environmental determinants of health and wellbeing. These differences led to a stark divergence of COVID cases and deaths, but there were also common system outcomes, which included the effectiveness of collaborative community, city and central government actions in controlling the pandemic.

Good governance takes the complexity and interconnectedness of urban systems into account and makes intelligent system interventions in the system, based on scientific evidence about causation, interactions and co-benefits. The case studies concluded that better urban outcomes were evident where there was: clear leadership with a civic mandate to manage urban health issues; human rights for all population groups; intersectoral collaboration; measuring and monitoring of critical urban health indicators; sharing of risks, costs and benefits of health measures or interventions; and taking a preventive and precautionary approach, not just a curative approach. Trust in government, low in countries at war, was paramount.

Despite the huge range in COVID-19 cases and fatalities, paradoxically the impacts of urban governance, the economy, the urban environment, urban form and mobility, show some remarkably similar patterns. On the positive side, social cohesion and broad conformity with strict disease prevention policies, especially at the onset of the pandemic, were effective. Indeed, New Zealand and Australia showed that it is possible to have health dividends in terms of increasing life expectancy during the pandemic. New Zealand and Canada, both post-colonial countries with constitutional partnerships with indigenous populations, delegated authority from provincial and national governments respectively.

However, policies that were inflexible and unresponsive eventually produce unintended downstream consequences. Tempers and trust became frayed, even when there had initially been high levels of trust and consistent and inclusive communication. People on low incomes bore cumulative disadvantages. Unemployment, particularly in the informal economy, domestic violence and school absenteeism increased. People in crowded households were particularly vulnerable. Responses to a pandemic need to be evident at many different points in an urban system, prioritise interventions that recognise and reduce existing inequalities, and engender multiple and interrelated corrective or preventive actions by multiple actors at appropriate levels.

Algorithmic Urban Planning for Smart and Sustainable Development

Tan Yigitcanlar, QUT

In recent years, artificial intelligence (AI) has been increasingly put into use to address cities' economic, social, environmental, and governance challenges. Thanks to its advanced capabilities, AI is set to become one of local governments' principal means of achieving smart and sustainable development. AI utilisation for urban planning, nonetheless, is a relatively understudied area of research, particularly in terms of the gap between theory and practice. This study presents a comprehensive review of the areas of urban planning in which AI technologies are contemplated or applied, and it is analysed how AI technologies support or could potentially support smart and sustainable development. Regarding the methodological approach, this is a systematic literature review following the PRISMA protocol. The obtained insights include: (a) Early adopters' real-world AI applications in urban planning are paving the way to wider local government AI adoption; (b) Achieving wider AI adoption for urban planning involves collaboration and partnership between key stakeholders; (c) Big data is an integral element for effective AI utilisation in urban planning, and; (d) Convergence of artificial and human intelligence is crucial to address urbanisation issues adequately and to achieve smart and sustainable development. These insights highlight the importance of making planning smarter through advanced data and analytical methods.

The Just City: Surfacing embedded ethics in urban policy through the Ethics in Planning Evaluation Framework

Joanna Ross, Massey University

Planning literature tells us that urban policy seeking better outcomes for communities and the natural environment is based on normative views of what is right or good. These norms, based on ethical principles and specific substantive conceptions of justice, affect the lived experiences of city residents and warrant exposure and debate. Yet understanding the ethical dimensions of planning is purportedly an aspect of planning practice that has been neglected and with which planners struggle. Addressing this gap, this paper presents an evaluation framework to critically and systematically evaluate contested ethics in planning discourse- the Ethics in Planning Evaluation Framework (EPEF).

The EPEF draws on justice ethics which have long been used to inform urban policy, and on an extended conceptualisation of what constitutes a just city with an added focus on care ethics and kindness. Using both political discourse analysis and a Foucauldian-type discourse analysis, it enables ethical arguments in planning discourse to be evaluated against four criteria- extent, focus, merit, and power. The EPEF is intended to support planners as they increasingly engage with ethics invoked in planning policy to enable the realisation of a just city, or at least point to injustices that may be perpetuated in planning. It liberates ethical arguments on which urban policy is legitimised, potentially exposing competing ethical norms or identifying discursive ruptures in policy.

The paper concludes that the use of an evaluative framework such as the EPEF to systematically unravel planning discourse is necessary to understand why planners should care about and engage with the ethical dimensions of arguments informing policy. It identifies six requisites for planners seeking to realise a just city, including the need for the planning profession to reconnect with theory in order to understand the effect of ethical premises that inform their work, and to recognise that that planning a just city (in the extended sense) can be sought incrementally through non-reformist reforms; recognising, as others have noted before, that every step towards a just and kind city is a step forward.

The initiatives of local governments in transport new technology adoption

Xiao Ma, University of Melbourne

Carey Curtis, University of Melbourne

Crystal Legacy, University of Melbourne

Stone, John, University of Melbourne; Reardon, Louise, University of Birmingham

Emerging transport technologies (i.e., micro-mobility, MaaS apps and GPS-enabled ridesharing) are transforming the way people travel (Dowling and Kent, 2015; Marsden & Reardon, 2018). For Australian cities and other global cities, there is a significant problem emerging as these new technologies raise concerns for safety (Trobaghan et al, 2022), social equity (Kuzio, 2019), environmental sustainability (Pojani & Stead, 2015), and the future of public transport (Doherty et al, 2022). There are many debates around the absence of a regulatory framework and policy tools to promote the adoption and use of innovative technologies in the transportation sector (Curtis & Low, 2012; Guerra, 2016; Legacy et al, 2018; Marsden & Reardon, 2018; Stone et al, 2018). Nevertheless, the current research lacks clear insight into the role that various government agencies should/could have within a multi-level neoliberal institutional structure (Curtis et al, 2019; Reardon et al, 2022).

This paper investigates the initiatives of Australian local governments in the adoption of transport technologies. Based on policy analysis of the three Australian municipalities (i.e., the City of Melbourne, the City of Sydney and the City of Perth) and the semi-structured interviews with the local authorities, built environment professionals and industrial companies, this paper examines the objectives of local governments on the adoption of transport technologies for sustainable transport development and points out the different stages of the three municipalities in transport technology adoption are in. Additionally, the paper analyses the existing local governments' policy instruments in promoting and regulating the transport technologies. It identifies the limited capacity of local governments in the adoption of new technologies and points out the underlining reasons which have resulted in that including the car-centralised institutional structure design, the ineffectiveness of stakeholder engagement and the inefficient initiatives delivering process.

Completing the circle? Exploring the integration of logics in strategic spatial planning - a case study of the Melbourne Urban Growth Boundary

Tanya Burdett, University of Melbourne

Planning is a complex endeavour involving competing objectives and interests. Through analysis of Melbourne's Urban Growth Boundary (UGB), this research explores how narrative frames influence the integration of social, environmental and economic objectives (or logics) in strategic spatial planning, as components of urban sustainability. This case study analysis explores policy processes which brought the UGB into Melbourne's strategic planning lexicon. Changing its location around five times in its first decade of existence, the continued expansion of the UGB provides a useful illustration of the ways strategic planning is influenced by complex institutional and governance settings, and pressures of urbanization, whilst overtly attempting to ensure growth and development is undertaken in a sustainable manner. A blistering critique (McLoughlin, 1992), reiterated decades later suggesting the 'effective abandonment of the UGB' amounted to 'serious failure' (Buxton, Goodman, & Moloney, 2016, p.91), points to a persistent lack of awareness of city dynamics and research insights, private sector dominance in planning, and citizen needs, interests and desires.

This research poses a central question: 'Why did the UGB change so much within the first decade of its establishment?' Supporting questions focus on how different logics are articulated and at which critical decision points, whose logics are prioritized, and ultimately what is good and bad about this story? (with reference to normative values of planning and urban sustainability).

The research focusses on the effects of the dominant growth-dependent paradigm, and ability of planners and other professionals to navigate uncertainty, acknowledge and negotiate value judgements, and address uneven power expressed at key decision points. Findings suggest varied contradictory narratives paint a different picture of success of the UGB, its implementation, and the various planning controls and tools utilized to embed the UGB in spatial planning practice. Some tools have had the opposite of enhanced sustainable outcomes.

In the spirit of Flyvberg's deep dive into one case study (1998), the research uses frame analysis (Schön & Rein, 1994) to understand how competing perspectives are articulated through implicit and explicitly stated values, behaviours and ideals, rendering assumptions and logics more visible, as the units of analysis. The research provides a macro-lens on urban consolidation policy, and meso/micro lens through 45 stakeholder interviews of those involved

in the spatial planning process for Melbourne's UGB. Stakeholder views are triangulated against frames evident in the policy and regulatory review, to build on academic thought and practice related to urban sustainability and governance.

The push, shove and implicit coercion of strategic planning 'process': shaping owner behaviours and the iterative journey towards rezoning

Simon Pinnegar, UNSW

Kristian Ruming, Macquarie University

Charlie Gillon, UNSW

Liu, Sha, Macquarie University

Laura Crommelin, UNSW

Hazel Easthope, UNSW

In the ongoing shift towards the Compact City, the process of stewarding change through the redevelopment of well-located lower density residential areas is an invariably complex, fragmented, contentious exercise for the stakeholders involved and impacted. The prospect of rezoning, typically around key transit nodes or strategic centres, is seen as a fundamental facilitator, with the use of strategic planning levers to recalibrate residential development feasibilities signalling a step change in the 'business of densification' (Debrunner, 2020) for the communities and properties concerned.

Fundamental to realising the potential enabled through such rezoning are the homeowners who find themselves enlisted - whether proactively or involuntarily - into new relationships with the planning system, urban development interests, and local growth coalitions. Those relationships take different forms, and evolve over time, but the spectre of rezoning demands a response, and instigates a set of behaviours and expectations amongst those owners. While the rezoning process can be framed as a top-down outcome of ordered strategic planning process - a "hard", fixed blueprint for managing forward growth and desired built-form based on density provisions and height limits, the route map to those final 'rezoned' development controls looks quite different: contested, negotiated, iterative, and bearing the imprint of often-competing stakeholder interests.

Drawing upon insight from a 3-year research project looking at residential collective sales - where residents come together to sell their properties "in one line" or as a land assembly - this paper seeks to unpack how prospective rezoning activity shapes owner behaviours, and how - in turn - those behaviours guide ultimate planning and development expectations in areas subject to rezoning. Interviews with residents, planners and other stakeholders involved, alongside detailed planning biographies across our case study neighbourhoods in Sydney and Vancouver,

highlight and help interpret a layered and multi-directional process. There is a particular interest in how early rezoning triggers nudge and influence owners to reframe their 'relationship' with their property, neighbours and neighbourhood, both individually as well as collectively. Responding to those triggers enrols owners as proactive participants with interests in the growth coalition, and in so doing, arguably helps transfer some of the 'hard yards' involved in hardening rezoning proposals and preparing communities for change. While similarities in the iterative interplay between the passage of planning process and owner behaviours can be see across Sydney and Vancouver case study neighbourhoods, important - and instructive - differences in how that "compact" is mobilised can be seen.

Community University Partnerships for Voluntary Local Review of Progress on the Sustainable Development Goals

Rebecca Schiff, University of Northern British Columbia

Ashley Wilkinson, University of Northern British Columbia

The success of the United Nation's 17 Sustainable Development Goals (SDGs) largely depends on work at the local level. Voluntary local reviews (VLRs), which monitor sub-national implementation, are key in this work. Thunder Bay is a City in Northwestern Ontario, Canada, situated on the traditional lands of the Anishinabewaki (ᐊᓂᔑᓈᐯᐧᐊᑭ) and the traditional lands of Fort William First Nation. The city has a population of approximately 110,000 and acts as a regional hub for a number of rural townships and First Nations accessible by road, and accessible by air for those in the far north. While it is relatively isolated from other population centres, it served as a social service and healthcare hub for regional communities. Undertaking a VLR for the Thunder Bay region was borne out of discussion between community and university partners who shared a common interest in the SDGs and a goal of creating a systematic and comprehensive evaluation of Thunder Bay's progress towards achieving sustainability. By combining information from environmental scans, extensive data mining and consultation with partners in the Thunder Bay community, this VLR attempted to address as many targets as possible across all 17 SDGs, to provide the most comprehensive report on the city's SDG progress. This initial VLR was necessarily built first and foremost on previously developed and new relationships between University researchers and non-academic partners. This presentation will focus on describing the partnership approach, challenges, successes, outcomes and future steps towards expansion. It will also describe the findings of the report, implementation plans, and discusses strategies for developing community-university partnered VLR teams in small and medium-sized cities. Overall, this presentation aims to provide opportunities for global learning across communities of similar geographies and demographics throughout Australasia.

Australian universities and public-private capital: Understanding the role of business and philanthropy in producing university territory.

MCNEILL DONALD, UNIVERSITY OF SYDNEY

ROGERS DALLAS, UNIVERSITY OF SYDNEY

The profile and spatial footprint of Australian universities have undergone significant changes in recent years. Many public universities now receive most of their funding from either commercial activities and industry partnerships, or private philanthropic donations, particularly for research. The mix of public and private capital in funding new 'innovation spaces' and cultural and educational buildings has been an under-examined element of the 'enterprise university' research agenda. This paper examines how Australian universities are programming commercial research and development facilities into their estates, such as through co-location in innovation precincts and public-private partnerships. The paper has four distinct sections. First, it conceptualises what is typically known as the university 'estate' at a time when the typical association of a university with an identifiable campus is now increasingly difficult to ascertain. Second, it surveys university initiatives relating to start-up incubators entrepreneurialism, and traces how this is tied into campus development and aligned start-up 'spin-off' firms and faculty. Third, it asks how philanthropist-led funding is impacting on university development strategies. This includes understanding the role of 'grand challenges' in driving philanthropic funding, and exploring the link between human capital endowments and building and infrastructure endowments. This section also explores the implications this may have in terms of the disciplinary impact of STEM and humanities and social science-based disciplines on the campus environment. Fourth, it discusses whether such private capital endowments or business investments alter the research focus of the university, and whether it leverages campus development down particular pathways. The paper concludes by mapping these trends onto a categorisation of Australian universities based on their historical and geographical diversity, accounting for the emergence of sandstones, gumtrees, and inner-city universities.

Bloomberg's global mayoralty: Philanthro-policymaking and the innovation of city government

Tom Baker, University of Auckland

Alistair Sisson, Macquarie University

Pauline McGuirk, University of Wollongong

Dowling, Robyn, University of Sydney; Maalsen, Sophia, University of Sydney

After an unprecedented three terms as mayor of New York City, Michael Bloomberg set his sights on higher office. While presidential ambitions have been difficult to fulfil, his campaign for a more expansive, if informal, office has been remarkably successful: to be the World's Mayor. Through Bloomberg Philanthropies'part family foundation, part channel for corporate and personal giving, and part non-profit consulting service funded through the multi-billion dollar proceeds of Bloomberg L.P., the financial analysis and media company he co-founded Michael Bloomberg's tenure as mayor of the Big Apple has been scripted and is touring well beyond Broadway. This paper traces the emergence of Bloomberg's global mayoralty, starting with the narration of his policymaking style and achievements as 'CEO-Mayor', before turning to the codification and promotion of that style through Bloomberg Philanthropies and, in particular, its 'government innovation program'. Combining financial support, technical assistance and access to professional networks, the government innovation program establishes 'innovation teams' in city governments, reshapes the procurement of services and solutions through its global 'Mayors Challenge', and defines and promotes evidence-based decision making through its 'What Works Cities' certification program. Drawing on analysis of secondary materials and interviews with professionals on the giving and receiving end of Bloomberg Philanthropies' engagements with city government, the paper examines the global-urban imprint of Michael Bloomberg, a singularly influential figure in urban policy debates and practice over the last quarter century. Alongside recent scholarly analyses of philanthropic organisations' influence on urban governance in the global South, the paper directs attention to relatively well-resourced urban contexts of the global North, noting a shift beyond indirect philanthropic influence over public priorities to more direct forms of partnership between philanthropic organisations and city government. If, as Michael Bloomberg says, philanthropic organisations are not simply an 'alternative to government', but are increasingly acting as engaged 'partners' for 'emboldening government'- especially in urban contexts of public

austerity and devolved responsibility- the relations between city government and philanthro-policymaking are worth closer attention.

Governing for active transport in Australasian cities: the case of the NSW Minister for Active Transport, 2021-2023

Michael Bishop, University of New South Wales

Australian cities have been built and managed highly dependent on private cars as the primary mode of transport. The establishment of the Minister for Active Transport in the NSW Government between 2021 and 2023, the first such ministry in Australian government, was an attempt to unshake this dependence, and promote walking and cycling as freer, healthier and more productive modes of transport across NSW cities and towns. This paper reflects on the establishment and achievements of the ministry across active transport planning, strategy, infrastructure and regulation and safety, while also identifying some of the institutional obstacles and opportunities faced in trying to shift mode share. The relationships within state government, between levels of government, and with non-government actors are explored to consider different political and popular narratives used to encourage greater uptake of walking and cycling. Written from a planning, political and policy perspective, the paper will include lessons and recommendations for other Australasian jurisdictions to improve the delivery and uptake of active transport towards a more sustainable future. The paper finds that rather than simply focusing on policy and investment to promote active transport, getting governance structures right for how cities and streets are managed is the most influential factor to make streets and public spaces more accessible and attractive for walkers and cyclists.

Governing urban sustainability transitions: engaging low profile high impactful actors in transitions and policymaking

Chamila Weerathunghe, Monash University - Australia

Megan Farrelly, Monash University

Many cities in Australasisa are undergoing sustainability transitions on different fronts such as curbing carbon emissions, waste management, and managing limited resources. Government policies and a diversity of actors are critical aspects of governing these sustainability transition processes. Actors drive transitions and government policies are expected to advance urban transitions by creating an enabling environment for engaging highly impactful actors in different sustainability transition processes. A favourable policy environment not only can engage many actor groups to play different transition roles, but also to perform a vital role in governing urban transitions through policy participation. We explore this proposition with a highly impactful low-profile actor group in urban environments small and medium-sized enterprises (SMEs) and a suite of non-state actors who support engaging SMEs in urban sustainability transition processes. For empirical investigation, we study the policy mix in metropolitan Melbourne that is intended to engage hotel and restaurant SMEs and their supportive actors to one of the pioneering transition goals in Victoria- Halving Food Waste by 2030. Through semi-structured interviews with government policymakers and non-state actors including SMEs, we explored the policies available for SMEs and their supportive non-state actors for reducing food waste and how various transition actor roles (e.g., innovating in technology, practices, and routines, consultancy, bridging services, communication services among others), contribute to the governance of this transition through policy participation. Our findings reveal both SMEs and their supportive actors encounter numerous challenges engaging in this transition and governance processes. The policy mix demonstrates weak capacity to alleviate the challenges of these actors and the enabling environment for policy participation varies for different actor groups. While some established actors receive more recognition in policy processes (e.g., mainly in policy design and delivery), startups, social enterprises, and locally emerging innovation-based projects struggle to stay afloat and scale up their impact. In summary, the state government's policy mix to engage these actors in this sustainability transition in metropolitan Melbourne- Halving Food Waste by 2030 has further opportunities to encourage actor engagement and strengthen actor participation in governing urban sustainability transitions.

The emerging YIMBY movement in Australia and New Zealand

Jago Dodson, RMIT University

Over the past half-decade cities in the Anglophone settler-colonial sphere have witnessed the emergence of a new urban advocacy movement advocating for the deregulation of planning systems in favour of market-led housing development. This paper investigates the emergence of this movement in Australia and New Zealand to understand its emergence within contemporary urban processes, intellectual positioning, advocacy strategies and policy effects. The background of the presentation lies in the rapidly developing crisis in urban, national and global housing systems in the advanced economy sphere over the past two decades. This crisis has been marked by inflationary house prices under financialised conditions associated with rising social inequalities of wealth and income. Within this context younger population cohorts are struggling to attain the dominant norms of home-ownership that have prevailed in many societies during the post-WWII era. Out of this context have emerged advocacy movements that identity urban land-use regulation as a principal constraint on housing supply and thus a fundamental cause of the housing crisis. Such movements often claim that existing home-ownership cohorts deliberately restrict development through 'not-in my backyard' regulation of new development. In turn the 'yes in my backyard' or YIMBY groups attack planning and planners and advocate urban deregulation in favour of market-led development processes. Such movements have emerged in Aotearoa with some policy influence and become are now emerging in Australia. They are aligned with longstanding coalitions of advocacy against planning regulation particularly on the part of property developer interests. This presentation will investigate the emerging YIMBY movement in Aotearoa (Auckland, Wellington) and Australia (Canberra, Melbourne) in four main ways. First the paper will assess the background to YIMBYism within recent and contemporary urban process, second the paper will appraise the implicit and explicit theoretical and empirical basis for YIMBYism in Aotearoa and Australia, third the paper will seek to understand YIMBY advocacy strategies, and finally the effects of YIMBYism on policy will be discussed. The paper concludes by tying the Aotearoa and Australian cases into the wider international theorisation and empirical appraisal of YIMBYism and offers alternative mechanisms to achieve improved housing inclusion and affordability.

Governance and active citizenship: A necessary relationship. The example of the Caracol da Penha Movement, Lisbon, Portugal.

Jorge Gonçalves, CiTUA, Center for the innovation in Territory, Urbanism and Architecture.
Instituto Superior Técnico*, University of Lisbon, Portugal*

Urban governance is a dynamic model of city management that is often misunderstood, biased, and manipulated. The variety of adjectives that accompany the word "governance" shows just how complex it is to understand and even more so to apply. But in very concise terms, two essential aspects of the current concept of governance should be considered for this communication: i. The governance structure must be organised according to the problem and, above all, the solution, to concentrate the energies required to achieve it; ii. Governance and government are not exclusive models, but complementary, and the main concern is how to relate them in the best way.

The construction of this universe in which governance can be the expression of the vital energies of a certain territory, city or metropolis benefit greatly from its association with the process of public participation and the development of civil society, making use of Arnstein's classic 8-step model (1969) to understand the path to an active, participative and involved citizenship.

Thus, this communication starts from the principle that governance has become today, in modern societies, a necessity or perhaps even an obligation, but also acknowledges that the process of its practical affirmation requires a mature civil society for which the evolution in the public participation process can help us monitor.

Besides contextualising this still somewhat unfocussed scenario, the intention is to reveal how part of this evolution is due to acts of conquest such as that portrayed in the example of the (ephemeral) Caracol da Penha Movement, formed from the contestation of the decision to build a car parking area and, subsequently, from the claim for a new urban public garden.

The narrative presented here is not only about a concrete case, an example of bottom-up dynamics. It is also about a paradigm shift in the culture of power and management at local level. That is why we believe that it is urgent to reflect on it.

Beyond Jafaism: Social collectivism or broke in the ruins of modern Auckland

Nicolas Lewis, University of Auckland

John Morgan, University of Auckland

January's flood seemed to confirm UK urbanist Owen Hatherley's suspicion that Auckland is 'the world's most unliveable liveable city'. Multiple infrastructures were revealed as failing, including public communications, wastewater, transportation, and planning. The failures confirmed that Auckland's preoccupation with growth has produced a city that is living beyond its limits and one paralysed by a lack of collective imagination and action. All this can be explained in terms of failures to be precautionary, act responsibly, invest appropriately, plan effectively, and tax sufficiently. Other than taxing more heavily, each of these explanations was widely made in the aftermath. Urban elites nodded sagely, yet within weeks the Mayor was announcing budget cuts that demonstrate that lessons have not been learned. Cutting budgets guarantees that little will change, but it does illustrate the deeper problem: the failure to address the what, who, why or how of Auckland. What is the point or identity of the city, and how might Aucklanders act collectively to refine and realise the city's potential and meaning. This is a question both of citizenship and how citizenship interacts with political-economy. The city routinely devises slogans as band-aid to the problem, but these collapse to marketing a certain source and form of growth and reproducing the Jafa. In this, paper we consider 75 years of efforts of to define Auckland through urban development as evidence for arguing that addressing today's challenges of spatial governance must confront the problem of growth and its underlying assumptions of settler capitalist individualism and the pioneering spirits of exploiting, corralling and managing nature for growth. We map Auckland's missing citizenship and ask what might be done to invoke and nurture an Auckland that escapes the slide from growth into ruins in after-growth environmental and social conditions. At a moment of existential urban crisis it is time to ask the most fundamental of questions how must we live and be as urban dwellers in the ruins of modernity?

Exploring the Challenges of Post-Political Planning in NSW: An Analysis of Institutional Settings and Actors' Perspectives

George Greiss, Western Sydney University

Awais Piracha, Western Sydney University,

The paper discusses the challenges presented by the current post-political planning system in NSW, which creates confusion and lack of trust among communities due to competing interests of decision-makers. It uses semi-structured interviews with key decision-makers and personal reflections to explore the inherent conflict between decision-makers at different levels and functions.

The paper argues that political decision-makers are governed by institutional settings and rules, which limit their selection of legitimate public policies to institutionally approved options. Respondents from different institutions consistently allocate blame and responsibilities in favour of actors from the same institution. The paper highlights the importance of identifying the relationship between institutions and their actors, as actors rely on their institutionally constructed positions to justify their actions and defer to the institutional framework that will further their position in conflicts between different institutional positions. The paper concludes by emphasising the inherently political nature of planning and the need to acknowledge and reflect on whose politics are being reflected in planning decisions.

The paper further argues that political actors are integral to the institutional framework and have a hierarchical allegiance to their respective institutions. They rely on their institutional position to justify their actions and tend to defer to the institutional framework that serves their interests in a conflict between different institutional positions. Therefore, examining the relationship between the institution and its actors is crucial to understand how institutional factors shape decision-making processes. The paper also emphasises that actors can modify the institutional structure, highlighting the importance of understanding their motivations and actions.

Governing the use of AI in Planning: Reflections from a Case Study on the Use of Analytics in the Planning of Greater Sydney

Claire Daniel, University of New South Wales

Christopher Pettit, University of New South Wales

Recent years have seen an explosion of work exploring the disruptive potential of big data analytics and artificial intelligence across all sectors of society. This has been accompanied by a proliferation of ethical guidance and policies relating to the use of artificial intelligence. Very little of this literature however is specific to urban planning, and to date there has been a lack of research into the implications of these technologies for integrity and transparency of planning processes.

In this presentation we investigate the institutional governance arrangements for the use and publication of data analytics in strategic planning. In doing so the presentation will provide an overview of the findings of a mixed methods investigation into the use of analytics in the preparation and implementation of the Greater Sydney Regional Plan (2018). This is a large and complex regional strategic planning process undertaken by the Greater Sydney Commission, an independent planning agency of the state government of NSW in Australia. The study had three components: a content and network analysis focused on characterising the analytical content of documents produced during the planning process; a content analysis of policy documents relevant to the use and publication of data analytics; and finally, twenty key informant interviews with relevant policy and data professionals.

This study found that over 20 policies and guidelines had been created in the last five years relating to the use and publication of data and analytics within the NSW Government, focused particularly on data sharing, artificial intelligence, smart places and smart infrastructure. Despite the large volume of new policy, very little was found to be of direct relevance to the type of data and analytics employed in strategic planning. For instance, most AI policy was found to be focused on regulating the effects of algorithmic decision making on individual people. In contrast, very little guidance was provided when it comes to the use of AI algorithms in strategic planning which instead of individual people, tend to deal with geographic places and communities. Through the identification of these gaps, this research makes the case for more concerted efforts to address the needs of planning in data and AI governance frameworks.

Alternative Governance in Platform-Mediated Cities: Lessons from South America for Urban Policymaking in Australasia

Luis Hernando Lozano Paredes, University of Technology Sydney

Gabriela Quintana Vigiola, University of Technology Sydney

Urban policymakers in Australasia can gain insights from alternative governance models facilitated by platform technology that are emerging in marginalised urban populations in the global south. This research employs digital ethnography to examine how ride-hailing platform drivers in Bogotá, Colombia, who operate in the informal economy, have developed a microsphere of self-governance through informal food delivery and trips using social media groups and communication platforms like WhatsApp. The methods include 42 online interviews with ride-hailing drivers and government and platform corporation officials, together with the analysis of digital documentation. The development of alternative governance from platform drivers challenges the existing institutional configurations of the city and highlights the need for urban policymakers to acknowledge and leverage the emergence of a new platform-based municipalism in the global south. Furthermore, this research emphasises the significance of incorporating the emergence of alternative governance practices with platforms into applied urban policymaking. We use Mobility-as-a-Service (MaaS) policy development as a case study to expand the discourse and encompass considerations of mobility justice.

We argue that urban policymakers must broaden their perspectives to design inclusive and equitable urban policies that promote social engagement, equity, and justice in platform-mediated cities. A broadening of perspectives necessitates shifting from focusing solely on technological aspects of platforms' effects on cities to adopting a holistic approach that considers social, economic, and cultural dimensions. It is crucial to incorporate the voices and experiences of marginalised populations in policy design to ensure that urban policies are sustainable and responsive to all residents' needs, especially those often overlooked or unrecognised. We also argue that applying lessons from South American cities has the power to influence policy directions in Australasian cities, as there is evidence of similar processes such as the one observed in Bogotá happening in cities of the 'developed' world like Sydney. We conclude by considering how taking a human-centred approach that considers people's everyday practices with platforms can inform future policy directions, promote values of mobility justice, and address the needs of diverse populations in the rapidly growing Australasian cities.

Renewing the Research Agenda for Infrastructure Governance: Country, Integrated Collaborative Governance, and Social Legitimacy

Tooran Alizadeh, University of Sydney

Rebecca Clements, University of Sydney

Glen Searle, University of Sydney

Liton Kamruzzaman, Monash University

Elle Davidson, University of Sydney

Crystal Legacy, University of Melbourne

Dallas Rogers, University of Sydney

The proposed themed session runs as a plenary discussion centred around the findings of the 'Infrastructure Governance Incubator' - a multidisciplinary collaborative research project across three universities (the University of Sydney, the University of Melbourne, and Monash University), funded by the Henry Halloran Research Trust for 2020-2023. The timing of SOAC 2023 is an ideal opportunity for a consolidated reporting to the urban planning research community, and to generate meaningful discussion on renewing a research agenda for infrastructure governance focused on building more just and sustainable future approaches.

Infrastructure planning and delivery are at the core of how we shape our communities and collective futures, yet we struggle within contexts of multiple, overlapping crises such as those relating to climate, ecology, health, social inequalities, and ongoing settler-coloniality. Contemporary infrastructure challenges are deeply entangled with chronic issues - such as capacities and resourcing, and stark disparities in power and social legitimacy - troubling efforts to collaboratively shape places to meet current and future needs. Beyond matters of project selection and design, there is growing recognition that shining the lens on dimensions of governance is critical to understanding the nature of our planning challenges and attempting to reorient our approaches.

This session seeks to contribute to a renewed research agenda for infrastructure governance through informed discussion about the current state of governance challenges and potential future directions. In this session, the Incubator team will report on their findings from an in-depth case study of the Western Sydney Parkland City in NSW, Australia; a highly complex megaproject involving major city shaping ambitions and novel governance approaches to place-based infrastructure delivery. The findings from this research are focused around, and

argue for renewed attention to, the critical issues of planning on unceded First Nations land, accountability and social legitimacy, collaborative governance and integration, and power and politics. The research insights have broad applicability to cases throughout the country seeking just and sustainable infrastructure planning while posing provocations. The findings will inform reflections from the discussants, generating broader discussion about our collective research agendas and professional responsibilities.

City Economies

Indigenous innovation within city economies: Pasifika communities' food systems and contributions to climate crisis mitigation and resilience in New Zealand

Suliasi Vunibola, University of Canterbury

Suliasi Vunibola, Macmillan Brown Centre for Pacific Studies, University of Canterbury

The destructive effects of Cyclone Gabrielle and the Auckland flood have underscored the need to rethink community resilience and enhance overall well-being. To achieve this, we must develop our understanding of existing community resilience and build on it to strengthen cultural, economic, and environmental resilience. This presentation aims to offer insights from an action project on how Indigenous innovation and community economies can aid in mitigating the climate crisis and enhancing resilience in New Zealand. The project asserts that a climate-resilient and low-emission economy can be achieved through intelligent, innovative, and creative methods based on evidence and encompassing Indigenous Knowledge systems. The project is based on a continuing action research project on the carbon-zero Pasifika community food system, which started with Indigenous Fijian communities in Christchurch City. The project involved interactive and culturally appropriate talanoa (in-depth discussions) with community members and researchers, and the findings were analysed and documented. This project's implementation relies on support and connections from the Pacific Ocean Climate Crisis Assessment Project (POCCA) at the Macmillan Brown Centre for Pacific Studies, University of Canterbury. The research has identified two main themes. Firstly, it is possible to adapt Pasifika diaspora food systems rooted in their island food systems but beyond the islands. This system has a zero carbon footprint and supports the availability of healthy, organic foods for Pasifika families throughout the year. It also strengthens their resilience to inflation, especially in accessing healthy food. Secondly, co-designing and contextualising social protection mechanisms that include Pacific and Māori communal and cultural values and practices, such as solesolevaki (unpaid labor) and food sovereignty, will help support and strengthen resilience in transformative ways. Despite the advantages, there are also challenges and barriers to successfully implementing such initiatives, which may require further research and interactions. The project is aligned with various national and international initiatives to build climate resilience, such as the New Zealand Emission Trading Scheme, Carbon Neutral government program, COP27, Paris Agreement, National Adaptation Plan (NAP), and policy recommendations for community resilience and adaptation identified in the recent IPCC report.

It also involves a future-looking interdisciplinary, integrated, and impact-based methodology, including research on a national scale that is inclusive of Pacific and Indigenous communities.

The degrowth opportunity what we know and what we are yet to discover

Zee Peri, Pollock Consulting

What would it be like to live in a City with a democratically planned economy that had the goal of ensuring wellbeing for all, while living within planetary boundaries? What would we create more of? What would we create less of? What goods and services would we decommodify to ensure peoples' basic needs are not a means to accumulate wealth for the few?

Degrowth, according to Jason Hickel, is planned a planned downscaling of energy and resource use to bring the economy back into balance with the living world in a safe, just and equitable way. Many degrowth proponents consider it to be an idea whose time has come as we face ever increasing emissions, biodiversity loss, growing inequities, and energy descent.

While research on degrowth undertaken in Aotearoa is very limited at present, we are uniquely placed for degrowth thinking to flourish. One key reason being that aspects of a degrowth economy align with Te Ao Māori concepts, for example of kaitiakitanga, whanaungatanga and kotahitanga. Another reason is our internationally recognised shift towards 'wellbeing economics'.

As researchers, academics, engineers, designers and advocates we can experiment with applying degrowth thinking to our projects, conversations and partnerships and share our learnings with the world.

Community Wealth Building as the future of urban economic strategies.

Natalie Allen, The Urban Advisory

Economic growth has been an imperative for cities for as long as they have existed. Post Industrial-revolution, this has focused outward - beginning with mercantile capitalism, to colonialism, to post-war globalisation. The Covid-19 pandemic and climate change have emphasised that while these international links are vital, ensuring equitable access to the economy is key to the long-term sustainability of cities.

Community Wealth Building turns the growth focus inwards. With the intent of leveraging local resources and growing the skills of people rather than wallets of executives, this approach is now a national economic strategy in Scotland. Overseas, indigenous communities have successfully built their own Community Wealth Building strategy to provide homes, jobs, and wellbeing in their communities. As we look to transition to decolonised urban economies, Community Wealth Building is an exciting opportunity to reimagine cities' economies as collaborative and people-powered, and the economy's interaction with social, cultural, and environmental wellbeing.

This paper tracks through our key research learnings about the applicability of community wealth building concepts reimagined as a best-fit our Aotearoa context. Afterall, this is a place-based strategy, unique to the people and environment in which it is applied. In particular, we will share case studies looking at how our work with iwi shows an alignment with Te Ao Māori worldviews of interconnectedness and mana motuhake. This will include stepping through the operative iwi strategy, developed in 2023, and sharing the process that saw it develop as well as how success will be monitored and evaluated over time.

Organic waste transitions in Aotearoa New Zealand

Kelly Dombroski, Massey University

Gradon Diprose, Manaaki Whenua Landcare Research

Aotearoa New Zealand is at a critical juncture in reducing and managing organic waste. Research has highlighted the significant proportion of organic waste sent to landfills and associated adverse effects such as greenhouse gas emissions and loss of valuable organic matter. There is current debate about what practices and infrastructure to invest in to better manage and use organic waste. We highlight the diversity of existing organic waste practices and infrastructures, focusing on Auckland, Wellington and Christchurch. We show how debates about organic waste practices and infrastructure connect across three themes: waste subjectivities, collective action in place and language.

Neo-liberal Planning in Practice: Use Value or Exchange Value?

A Post-Marxian Examination of Auckland's Housing Affordability Issue

Maqsood Rezayee, The University of Auckland

With the emergence of the ideology of neoliberalism, the role of planning has gradually changed. Neoliberals proposed privatising housing production, eliminating regulations, and implementing institutional reforms for market efficiency. These reforms included expanding financial capital markets, deregulation, low interest rates, and withdrawing the state from direct production. The changes in planning under the hegemony of neoliberalism have had an important impact on planning. From the post-Marxian point of view, the profound impact of changes in planning policies under neoliberalism is the main inherent contradiction of capitalism: exchange value replaces use value. The main aim of housing provision in capitalist societies is to obtain exchange value rather than use value. Due to the dominant role of exchange value in the housing provision, access to affordable housing for an increasing segment of the population has become more difficult. In this research, I attempt to demonstrate that the preeminent role of exchange value in Auckland's housing provision is the main cause of housing affordability issues. In doing so, I have drawn on the post-Marxian approach and utilised insights from David Harvey's theory of use and exchange value. By adopting a discursive interpretation of Harvey's 'theory of use and exchange value,' this study demonstrated that the shift to neoliberal planning policies and the subsequent reforms in housing policy perpetuated the housing affordability issue in Auckland. This study found that under neoliberal planning policies, exchange value maximisation has become the primary objective of housing provision in Auckland. This exchange value consideration, the speculative nature of housing construction, and the focus on generating surplus value have contributed to the increasing unaffordability of housing in Auckland.

How to make community economy transitions: lessons from building an inclusive regenerative local economy in central Victoria

Katharine McKinnon, University of Canberra

There is no shortage of conceptual frameworks that envision how our economic systems must change in order to secure the mutual wellbeing of people and planet, and combat the excesses and injustices of our capitalocentric economies. While doughnut economics, degrowth, circular economies, and community economies all offer glimpses of change, few opportunities exist to enact system-level shifts at scale. The Community Economy Transition project underway in central Victoria is offering a rare opportunity to enact a shire level transition to a more inclusive and regenerative local economic system. The project is tasked with paving the way for the delivery of urgent regeneration projects such as preventing and adapting to climate change, while also creating an economic system that inherently regenerates place and people. Working in collaboration with local government, the work is intended to create a repeatable approach for other regions to follow when beginning a journey of transition to a regenerative local economic system. This paper reports on how the project is using community economies approaches to take the first step of generating a community-led vision and an economic development plan for local economic systems that will secure the ongoing wellbeing of people and place, creating a shared habitat for people and Earth-kin that enables a mutual flourishing.

Indigenous Ontology creating Networks of Circular Economy Villages

Steven Liaros, University of Sydney

It has become commonplace for papers and presentations about cities to start with some version of the following story. In 1950, 30 percent of the world's population was urban and by 2014 that number had reached 54 percent. Reference to this trend is invariably followed by an assertion that the trend must inevitably continue into the future, suggesting, for example, that by 2050, 66 percent of the world's population is projected to be urban. This paper will question whether this trend is inevitable or, indeed, desirable by contrasting indigenous and non-Indigenous worldviews.

I argue that the continuing centralisation of populations in urban centres, including their separation from food production and natural ecological cycles, reinforces an anti-Indigenous worldview. In contrast, the collective adoption of an Indigenous worldview would result in human settlement patterns arranged as a distributed network of regenerative, circular economy villages.

Drawing on Australian Indigenous wisdom and connecting their cyclical and systems thinking with the concept of a circular economy, I develop a vision for constructing the human habitat as a living system that encourages meaningful and tangible relationships with the land and between people.

Highlighting certain foundational differences between Indigenous and non-indigenous perspectives of circularity, current interpretations of the circular economy are also expanded, anchoring the economy in place and emphasising the dependency of human relationships on our collective relationship with the land. Indigenous perspectives also highlight the necessity for empowering each community to take responsibility for the land upon which they are located, resulting in a distributed governance system.

The proposed transition from a linear to a circular economy would necessitate a reorganisation of human settlement patterns. Rather than centralising power, production and people in cities, a circular economy would enable the dispersal of populations into a distributed network of community-scale settlements- each connected to the Country on which they are located, collectively managing the circulation of resources and simultaneously regenerating natural systems.

The political economy of First Nations Peoples should similarly be understood as a continent-wide distributed network of nations, each Caring for the Country on which they are located and envisioning the landscape as a network of waterholes connected by songlines.

Re-use as Re-invention: E-waste, Substation 33 and communal genius

Stephen Healy, Western Sydney University

Substation 33 is a non-profit organization that operates as an electronics recycling facility located in Logan, a suburban area near Brisbane, founded by Tony Sharp in 2014. The facility plays a vital role in addressing various urban community challenges in the Australiasian region, including waste management, circular economy, and climate change adaptation. Substation 33 has gained recognition for its innovative approach to reusing electronics, notably lithium batteries, which are transformed into environmental sensors, power storage units, and remote-location communication technologies. Some of these products have been utilized to sense and respond to climate impacts on infrastructure, such as flooding.

The organization has fostered a culture of reusing and reinventing rather than simply recycling. Founder Tony finds himself frequently at the centre of the substation 33 story as the charismatic entrepreneur, reprising the myth of heroic individual as innovator. While it's hard to deny his pivotal role in this initiative, he understands this to be problematic both in terms of succession planning and the portability of the approach they've developed. To shift the focus away from the sole innovator to the collective genius of the Substation 33 community, this paper uses a diverse economies approach through in-depth interviews and observations. The paper illustrates how the innovation process is redistributed and sustained through exchanges and labour processes that maintain the enterprise.

This approach recasts Substation 33 as an extended communalism, where reuse and reinvention comingle with genius. It redefines who/what is innovative, and lessons can be learned from this example. The paper highlights the importance of sustaining such enterprises and ensuring their continued success by exploring Substation 33's innovative process from a more collective perspective.

Experimenting within Grassroots Circularity: experimental approaches to advancing the circular economy from below (as part of the 'Reuse, Reinvention, and the Circular Economy' session)

Corey Ferguson, Monash University

Carl Grodach, Monash University

Ruth Lane, Monash University

Cities face compounding pressures from climate change, resource scarcity, and an economic system at odds with environmental and social well-being. This is forcing governments, industries, communities, and citizens to question the dominant linear approach to current production and consumption practices in favor of a more circular, regenerative solution. This presentation will report on PhD research that focuses on the abilities of Circular Grassroots Experiments (CGEs) to advance the adoption of new circular practices through community-led innovation and grassroots experimentation for the 'deeper' activation of a circular transition. A circular transition invokes the actualization of the Circular Economy (CE) on larger urban and global scales. The CE is an emerging field of innovation, policy, and research that seeks to reshape value exchange from linear pathways of resource extraction and disposal to renewed circular loops of resource (re)use, with social equity and planetary balance at its core.

However, the CE, in its formal implementation, has largely been controlled by industry-driven production and the top-down commercialization of circularity as end-of-life waste management. This protects problematic practices of lower-value recycling and overconsumption within resource production and consumption, and upholds exploitative political and economic regimes of neoliberal expansion and capitalocentrism. Conversely, this "top-down" approach excludes innovative 'bottom-up' community practices at the urban scale that seek the deeper activation of higher-reaching circular principles (e.g. reuse, reduce, rethink, and refuse) towards socio-political change. The CE is thus being delivered as a narrow, slightly more sustainable approach to continuous economic growth and resource-as-waste accumulation rather than providing the transformative fix to value generation and resource acquisition that circularity demands.

To truly achieve an urban circular transition, a radical shift is required in the ways cities produce and consume products and materials, as well as the ways in which governments and innovation engage with community and grassroots action. My research explores the often minimized social

and political dimensions of the CE by looking at the potential for grassroots-led 'experiments' to activate higher-reaching circular principles and deeper community capacity to create and sustain new communities of circular practice. This research looks specifically at the situated characteristics of practice, place, and positioning for CGEs in Melbourne, Australia, and how experimental conditions of social urban learning, spatial (un)embeddedness, and institutional (un)positioning can help to surmount previously observed barriers in circular grassroots innovation for the deeper and wider activation of the circular economy from below.

Shoulders to the wheel: Roles of reuse organisations in supporting inclusive circular economy workforce development

Lachlan Burke, Monash University

Carl Grodach, Monash University

Ruth Lane, Monash University

While the transition to a circular economy is often viewed as a more sustainable form of economic development, it comes with key risks including technological, occupational, and regional employment disparities. Addressing these risks is critical to ensure that the transition is also inclusive and equitable. Many reuse organisations seek to play a vital role in this regard. Their contribution goes beyond the provision of labour-intensive material processing and resale to support workforce development including recruitment of job seekers facing employment disadvantage. Yet little research has documented the variation in reuse organisations in their social objectives, nor on their impacts in supporting job entry and long-term employability through circular activities.

Through an exploratory case study of reuse organisations in Australia represented by the peak body Charitable Recycling Australia (CRA), we identify key subsets of organisations, based on their workforce integration and development objectives and outcomes. We draw on the results of a survey of 36 reuse organisations of varying scales and operational structures, cross-referenced with a survey of workforce development outcomes distributed among workers who were recruited based on their difficulties finding work. We define four key subtypes of reuse organisations based on their integration of circular and workforce outcomes: community reuse groups (based predominantly on citizen-ownership and engagement, rather than paid labour), charitable reuse retailers (trading arms of larger charity organisations which undertake resale activities), repair for reuse service providers (grant-funded organisations which provide secure work opportunities for people with a disability) and waste-to-wages enterprises (work-integrative social enterprises who provide targeted employment and training opportunities to seekers facing barriers to employment). We find that waste-to-wages enterprises consistently provide high levels of targeted opportunities and generate positive workforce development outcomes, leading to higher levels of long-term employability, particularly in undertaking circular activities.

Conceptualising Reuse: The Role of Community and Charitable Organizations

Lane Ruth, Monash University

Stephen Healy, Western Sydney University

Carl Grodach, Monash University

Reuse involves using something again, often after a transfer of ownership, and extends the use life of products and materials. Community and charitable organizations play a vital intermediary role in facilitating reuse by redistributing surrendered or disposed of items to new owners. However, little is known about the various activities involved, their social and environmental benefits, and what is needed to support them. This paper aims to develop a more nuanced conceptualisation of reuse that foregrounds the processes involved and provides insights into how they can be better recognized and supported in circular economy policy initiatives. We conducted a national survey with 36 reuse organizations that broadly reflect the diversity of organisation types within the charitable and community reuse sector. Respondents provided information about their organisation's purpose, the activities they undertake, the goods and materials they process, the character of their workforce and the size and location of their facilities. This was followed by qualitative research with nine organisations spread across QLD, Victoria and SA that involved site tours, interviews with managers and operational staff, and observations of operations. The analysis of these materials draws on insights from diverse economies scholarship to identify the practices of paid and unpaid labour involved in repair, sale, and reuse of items and the diverse forms of exchange that facilitate reuse. By accounting for the fuller, more-than-capitalist economies of reuse, the research identifies how spaces, relationships, forms of financial and non-financial support might extend its capacities.

Towards Evidence-Based Policies for the Night Time Economy: Understanding Nocturnal Workforces in Australian Cities

Anna Edwards, University of Melbourne

Recognition of the importance of the night time economy and the formalisation of night time economy governance has been on the rise in cities worldwide in recent years. Increasingly, city governments have been appointing dedicated night mayors or similar positions, and/or establishing consultative groups of key night time stakeholders. In many instances, city governments have also been developing night time (or 24-hour) economy policies, strategies or action plans. While night time governance was on the rise prior to the pandemic, the topic has gained further momentum as a way of attracting people back to cities post-pandemic. In Australia, night time economy governance initiatives are most commonly found within local government, such as in Sydney, Melbourne, Parramatta, Logan and Canterbury Bankstown, to name a few, with similar developments underway in cities like Adelaide and the Gold Coast. An exception to this localised approach is the New South Wales State Government's 24-Hour Economy Strategy for Sydney and its Office of the 24-Hour Economy Commissioner, which were established in 2020 and 2021 respectively to further develop the night time economy across the Greater Sydney area. Industry lobby groups such as the Night Time Industries Association in New South Wales have also played a part within this emerging agenda. Given the proliferation of government agendas to support and grow economic activity at night in Australian cities, it is important to understand how people are spending their time at night, and how this is perhaps changing, to inform evidence-based government policies. To appropriately support those keeping our society and urban centres running at night in Australia, we need to understand how many people are working at night, the work that they are conducting, their working conditions and demographic composition. This knowledge is needed to enable Australian policies and cities to be developed, planned for, and shaped to cater for the night workers who are underpinning the development of Australia's night time and 24-hour economies. This research highlights key challenges to quantifying the scale and types of night work being conducted in cities and identifies Australian datasets that could be used to better understand nocturnal workforces and their demographics in an Australian context.

Synergy between urban planning practice and small and medium businesses (SMBs) management curriculum at the university level to mitigate urban climate risks to achieve sustainability for Australian cities

Reazul Ahsan, University of Utah, USA and Torrens University, Australia

Jantanee Dumrak, Torrens University, Australia

In various regions of Australia, the effects of climate change are defined differently. In Adelaide, climate change manifests as a prolonged drought and heat wave, while in Queensland it manifests as heavy rainfall and flooding. Urban planning practices in Australian cities are confronting various strategies to overcome these challenges, such as Adelaide's water security strategy. Extreme climate change events have a direct effect on the urban economy, particularly on small and medium-sized enterprises (SMBs). To effectively manage climate change risks, small and medium-sized businesses must first develop a comprehensive comprehension of the potential impacts on their operations, supply chains, and customers. This requires a comprehension of the science of climate change as well as local and regional climate projections. Only disciplines with strong responses and connections to environmental studies, such as engineering, urban planning, and environmental sciences, have a significant presence of climate change topics in Australia. In other fields, such as business management, climate change is solely a subject of professional ethics and corporate social responsibility discussions. Such a lack of understanding of the effects of climate change places SMBs in a precarious position and has a negative effect on the local and regional urban economy. Using four universities in Adelaide, South Australia, as a case study, we intend to identify a common curriculum that matches the urban planning practice and SMBs management system at the university level in order to minimize the urban infrastructure and business risks. The study will investigate the relationships between offered curriculum and climate change impact, the need for green curriculum, and the disciplinary gaps in incorporating climate change as integral knowledge into existing business management education and urban planning practice. This research aims to provide recommendations regarding the synergy between climate change impact, adaptation, and business management for local and regional Australian cities to accomplish urban sustainability.

A good bet for urban governance? Exploring recent experiences developing Business Improvement District (BID) policy in NSW

Edward Steane, Transport for NSW / University of Sydney

This presentation will investigate the increasing interest in 'Business Improvement Districts' (BIDs) as a tool for city governance in NSW. BIDs are stand-alone entities, funded through an area-wide levy agreed upon by local business stakeholders. BIDs are widely used in jurisdictions such as the United States, Canada, South Africa, the United Kingdom and New Zealand, but remain relatively rare in Australian cities.

The presentation will consider recent efforts by the NSW government to use BIDs to improve economic, social and environmental outcomes through coordinated place governance. Changes in movement patterns and working arrangements as a result of the COVID-19 pandemic have increased interest in local place-making and community building. In this context, the NSW government has been investigating the capacity of BIDs to provide governance for local place-making.

The presentation will use recent BID policy investigations in NSW as a contemporary case study for how sub-national governments are developing new approaches to city governance. BID policy in NSW offers an interesting example of how theory-driven city governance policy can develop in a post-COVID Australasian context.

The presentation will particularly draw upon Transport for NSW's experience in developing, and consulting upon, BID policy for NSW- including the production of a BID policy 'White Paper' in in late 2022 and a further BID policy paper in early 2023. Transport for NSW's Urban Policy Branch has led the NSW Government's policy development on BIDs, working with stakeholders both in Australasia and around the world.

The presentation will include an examination of the relevant theoretical context for BID policy, particularly competing urban interpretations of multi-level governance theory. The presentation will also investigate existing debates on the potential, and limitations, of BIDs as a city governance tool, and how this has been considered in the development of BID policy in NSW.

Taking the long road: how the financialisation of commercial property continues to shape the geography of Australian cities

Lois Towart, University of Technology Sydney

Kristian Ruming, Macquarie University

More than places to work, shop and store, Australian commercial property assets (office, retail, industrial) are a component of the financial system. Studies of financialisation of commercial property have focused on events following the financial turmoil of 2008/2009 and the activities of large institutional investors. In contrast, the Australian experience comprised a wider process commencing in the 1970s with a diverse array of local and international actors. Examining this historically, three main themes of the Australian experience have been identified, namely assets have become embedded in local and international capital markets; assets have been created for investment which have shaped the urban built form; and the increasing size of assets and investors has resulted in a powerful lobby able to look after their interests.

Economic growth from the exploitation of Australia's mineral and hydrocarbon resources in the 1960s/70s promoted the development of eastern seaboard capital cities as part of the international financial system. These new financial services organisations demanded new office buildings which were enthusiastically constructed by (initially) local developers creating an investment on completion. Australia was an early pioneer of Real Estate Investment Trusts (REITs) with many of these developers/investors creating new REITs to purchase developments on completion and expanding into retail and industrial properties. The Australian government had role to play in this process with financial deregulation encouraging the growth of financial services and changes to superannuation legislation increasing funds under management. The marriage between a growing financial services industry with superannuation funds that had a large cash inflows encouraged the formation of large internationally integrated investment funds. The size of these developer/investments has created powerful lobby groups who are able to argue for favourable planning outcomes and participate in major infrastructure projects.

Australia demonstrated less disruption during the lockdowns and work-from-home initiatives during the COVID-19 pandemic and these large developer/investors continue to focus on East Coast capital city regions and prime (high-value) properties. While higher interest rates may impact upon some property values, the lower pandemic disruption promotes Australia as a low(er)-risk investment destination. Examining the financialisation of commercial property over

this longer timeframe demonstrates how entrenched the process has become in city geographies and how these three themes continue.

University property as financialised asset: The case of Western Sydney University

Kristian Ruming, Macquarie University

Sha Liu, Macquarie University

Universities are powerful landowners, often owning large property portfolios. On one hand, universities, and their development activities, have emerged as central to metropolitan urban policy, as city authorities look to universities to transform the city (Ruming, 2023). One the other hand, universities have engaged in development activities in efforts to achieve their own ambitions, such as new teaching, research, or commercial space. Development also represents a form of investment practice, where universities seek to benefit from increases in land value. McNeill et al. (2021) argue that these financial arrangements work to define the university as a space of risk, as universities emerges as neoliberal entities looking to diversify funding streams. In this paper we explore the campus development activities undertaken by Western Sydney University over the past decade, revealing the diverse financial and governance arrangements that mediate campus development. Drawing on literature on financialisation, we argue that campus development and university property arrangements are complex, with the university mobilising property as a source of revenue, a means of reducing cost, and the site of investment. The university is simultaneously a property vendor, a development partner, a landlord, a tenant, an investment product, and publicly funded entity. While there is growing popular critique about the role on universities as property actors, we provide a more nuanced analysis, revealing how universities, within the context constrained government funding, mobilise diverse financial and property arrangements to achieve their objectives.

Bazaar Economy and Industrial Production Centers of Metropolitan Regions in Pakistan

Muhammad Shafaat Nawaz, University of Illinois at Chicago

This research aims to theorize a specific spatial phenomenon that routinely plays out in Pakistani metropolitan regions: unanticipated, spontaneously formed production centers. The theoretical lens of bazaar economy model is used for studying such places. Such production centers include economic activities of various kinds but are mainly centered upon manufacturing units of light industrial and consumer goods that require intimate knowledge of production and distribution networks.

These production areas serve as robust economic centers providing many jobs and livelihoods even if often developed in contravention of land uses specified by statutory master plans. Such places are developed out of convenience by the multitude of actors that conceive and develop the economic system in these areas. An economy organized without state control is discouraged by the contemporary urban planning parlance in Pakistani policy. However, for an economically challenged country, a huge proportion of economy organized by its people is nevertheless an opportunity to leverage for regional economic planning.

This research argues that the literature on bazaar economy provides a useful investigative framework to understand such production centers. In bazaar, the provenance of the product is usually unidentifiable, thus creating an economy of unbranded, ungraded, and loosely sold commodities. Much of the production economy in Pakistan shares this feature of the bazaar but often encompass the boundaries of bazaar commodity quality and provenance. Taking this theoretical perspective as the investigative framework, this research theorizes the production centers in metropolitan Lahore using 'N of One plus Some' approach wherein one case study (Daroghawala Lahore) is explored in depth and its findings are validated through lesser detailed investigations in five other cases.

This recently completed cross-sectional research used mixed methods research methodology. Study objectives were pursued through a combination of the use of structured interviews, remote sensing technologies, land use surveys, and the official secondary data. The findings of this study show that the production and trade develop in parallel in these clusters. Multiple qualities of commodities are produced and traded through the type of flow networks that surpass the formal and informal channels. This economy constitutes 'globalization from below' having persistent trade linkages with economic centers around the world. These linkages do not

depend on the government but utilize state apparatus to their benefit. They grow through an international production and trade system developed by the entrepreneurs who surpass national boundaries. These findings change the current understanding of production economy in Pakistan.

Manufacturing Morphology: Revisiting Protectionism and Manufacturing Location in 19th-century Melbourne

DIPA SAHA, Monash Art Design & Architecture / Monash University, Australia

ELIZABETH TAYLOR, Monash Art Design & Architecture / Monash University, Australia

CARL GRODACH, Monash Art Design & Architecture / Monash University, Australia

Studies based on the 'New Economic Geography theory' have suggested that 20th-century trade liberation significantly impacted the locational choice of industries. However, there has yet to be a theoretical consensus on the direction of this effect, with authors claiming that lower tariffs were likely to be associated with the dispersion of industry, and others arguing that the opposite holds. In addition, other studies, e.g., Krugman & Elizondo (1996) and Sanguinetti & Volpe Martincus (2009), have demonstrated how protectionism and import substitution industrialization policies may influence the previous concentration of manufacturing in metropolitan areas in Latin American cities. They argued more protected industries tend to concentrate near the main metropolitan area in an inward-looking protected economy. This is consistent with Hirschman's (1958) finding, "In a protected economy, domestic markets, especially big cities, contained many potential customers and intermediate input suppliers, thus ensuring a strong backward and forward linkage." Moreover, it plays a significant role in overcoming the disadvantages, e.g., high rents, wages, congestion, and pollution, by minimizing transport costs on a more significant fraction of sales.

In the case of Melbourne, Australia, protection was the third leg in the Victorian colonial economy in the 19th century and expanded over the first seven decades of the 20th century with greater federal support. Much empirical urban and history literature has acknowledged but not closely examined tariff protection and import substitution as means of manufacturing growth in late 19th century Melbourne. Furthermore, the early concentration of manufacturing activities near the city and inner suburbs has been widely documented. Based on comparative studies of Latin American cities, this research explores the question: To what extent did Victorian protectionist policy influence the early concentration of manufacturing in Melbourne? In addition, it investigates how manufacturing locations in late 19th century Melbourne changed in relation to measures of economic protection. Morphological changes in Victorian Tariff Policies and documentation of the nature and geography of manufacturing will be mapped from available statistics, literature, and visual resources. This initial mapping will identify 2-3 case study industries with a high level of protection for detailed analysis. The study

will use contemporary knowledge to offer new insights into the impacts of 19th-century policies on manufacturing growth, economic transitions, and evolving urban conditions. More broadly, it will contribute to understanding protectionism and its effects on specific industries and places, which has remained a perennial political issue in a globalized economy.

Exploring Collapse Scenarios in the Housing Market

Peyman Habibimoshfegh, PhD Student - School of Project Management - The University of Sydney

Nader Naderpajouh, Senior Lecturer - School of Project Management - The University of Sydney

The housing market crisis often involves emergent mechanisms as a result of the complexity of the dynamics across social, ecological and technical systems. Previous observations suggest the shortcoming of predicting these emergent dynamics, specifically in extreme cases of collapse. Therefore, there is a need to further conceptualise the context of these emergences in extreme scenarios and potential strategies to predict and develop effective responses. The aim of this research is to understand the underlying behavioral patterns of the housing market in the face of potential collapse and explore potential approaches to predict the associated emergent dynamics. To achieve this, we will conceptualise historical cases of housing market crises and collapses and explore theories that can elaborate the market behavior in the face of collapse. Finally, a synthesised quantitative model will be developed to study the case of housing market of Sydney and understand potential mechanisms and circumstances in extreme scenarios of collapse and associated response strategies. By undertaking these steps, we aim to contribute towards a better understanding of the housing market during crisis scenarios and develop measures to prevent a potential collapse.

The Future of Dairy in Aotearoa New Zealand

Milena Bojovic, Macquarie University

My PhD research explores how Aotearoa New Zealand can transition to more just and sustainable dairy futures. The dairy industry in Aotearoa is facing a multitude of challenges in an era of climate and global environmental change, market volatility, changing consumer demands and the proliferation of alternative (animal-free) dairy. I am interested in understanding the role of alternative dairy proteins and the changing geographies of food production, particularly as new technologies can have far reaching implications in terms of impacting both local and global food supply chains. This issue is of particular importance for Aotearoa as dairy farming has a key role in the nation's identity, politics and economy.

For this conference, I would like to present on a forthcoming paper about farmer responses to the role of alternative proteins and how plant-based and precision fermentation technologies may impact their industry. The findings are based on workshops with farmers that were conducted in late 2022. In exploring the possibilities of 'synthetic milk' (through precision fermentation), I consider the socio-ecological implications of how the rapid R&D in these new technologies (domestically and abroad) may impact Aotearoa's dairy economy and facilitate the reimagining of urban environments as hubs for food production and distribution. In addition to the farmer workshops, I draw on interview data with key precision fermentation producers in Aotearoa and their views on the future of traditional dairy and synthetic developments.

As a future food source, precision fermentation offers the opportunities to localise food production through the potential of sophisticated 'breweries' that produce animal-like proteins, without the animal. However, there are also pertinent questions to consider such as the role of IP (knowledge and information sharing), access, nutritional benefits and whether these new technologies contribute to radical reimaging of existing food systems or merely maintain a neo-liberal, productivism logic that upholds the current status-quo. Building on the growing scholarship of scientific and social science questions about the role of novel proteins into the future, my research posits the idea cities could play a central role in the development and distribution of alternative proteins as humanity grapples with the social and ecological pressures to transition to forms of food production that are both just and sustainable.

The Tree, the Chair and the City: Re-founding the Relationship.

Christine Storry, University of Sydney

Abstract

Underpinning the concept of the value of land in Australia is the concept of "unimproved value" or the natural state of the land prior to development. That is land prior to any improvements such as houses, fences, clearing or earthworks. More recently, land - especially urban land - other than rural land, is valued using the site value methodology, which again considers the land as vacant of substantive improvements, but prepared for development by the clearing of vegetation on the land, and includes any other works done to improve the land and prepare it for development. While this concept reflects the current reality of urban development, it perpetuates within the built environment disciplines and the development community, a mindset that positively values neither nature nor cultural heritage. What are the origins of this mindset and can it change and evolve while the city grows?

The separation of nature and culture and the continual economic driven replacement is commonly opposed to the indigenous thought process. Tashiko Mori says of Japan's Ainu peoples;

"The Ainu manage the forest by making clearings to prevent fires from spreading, using leftover salmon they don't use as fertiliser, and replanting limited areas […] Hokkaido forests are unique in that they are multi diverse [...] and the Ainu's actions keep that complex ecosystem together."

While religious difference between Christian and indigenous belief systems is a stumbling block to some in considering comparative ways of rethinking, the human-environment relationship, belief is not the only obstacle within Western thinking as Mori suggests. Economic thinking is primary also. Western civilisation since industrialisation has planned on the basis of economies of scale. Thus, while the desire for urban density is explained as an environmental imperative, it is equally considered an economic imperative in providing civic infrastructure in a cost effective and efficient manner. Yet the question is not often asked what should we sacrifice for density? Or, how should we do density?

So what can we learn or do differently? Perhaps we need to begin to view our cities as complex ecosystems, also, with interrelated economic, environmental, social and cultural imperatives?

Perhaps in order to arrive at a land value, we ought to be able to view that same land through these various lenses before reaching our value conclusions which often then inform the market?

Market value is defined as "the amount that a willing buyer and seller would agree to at an arms length transaction [...] wherein both parties have both acted knowledgeably, prudently and without compulsion."

Local government as regime-based intermediaries to facilitate SMEs sustainability transitions: Lessons learnt from Melbourne, Victoria

Megan Farrelly, Monash University

Wendy Stubbs, Monash University

Thi Minh Phuong Nguyen, Monash University

Sustainable transformations are critical for addressing 'wicked' environmental and social issues in cities. Small- and medium-sized enterprises [SMEs], which account for more than 90 per cent of global businesses, are increasingly recognised as important economic actors which contribute to accelerating economic, environmental and social sustainability. Much of the SMEs scholarship focuses on examining SMEs' internal processes and mechanisms, highlighting the enormous potential of SMEs to adopt new sustainable business practices and/or business models and thereby drive sustainability transitions. Yet, little attention has been directed to understanding how external forces, particularly the role of policy actors such as local governments, inform and shape SMEs' capacity for transformations. Attending to this research gap, we develop a novel analytical framework built upon the sustainability transitions literature to explore the role of local governments as regime-based intermediaries in supporting SMEs' sustainable transformation. We apply this framework to a case study of Melbourne (Victoria) to provide insights into the nuanced role local governments play in the multi-level governance structure that influences sustainable orientations in SMEs. Our research suggests that local governments, as the closest level of government to SMEs on the ground, play a crucial role in encouraging SMEs to take on sustainability-oriented initiatives. The findings revealed that within the complex governance context of Melbourne (with multi-layered information and support offerings across sectors, scales and agencies), local governments performed functions of regime-based intermediaries to navigate through the complex support systems and progress a transition agenda for SMEs. These functions included: (1) articulating visions and expectations, (2) facilitating learning and knowledge sharing, (3) supporting network-building and networking activities, (4) brokering between actors and interests, and (5) providing institutional support through political advocacy and policy implementation. Despite the interest and efforts in supporting SMEs' sustainability transitions, our study also captured several systemic challenges, such as the lack of decision-making power and financial capacity, that constrained the intermediation of local governments. As such, there exists a need to develop relevant mechanisms and incentives to encourage and support intermediating activities of these policy

actors, including establishing structures for local governments to have a more defined role in policy development and implementation.

Digital platform and smart city: Is technology reshaping the urban landscape?

Lutfun Nahar Lata, The University of Melbourne

This paper, along with the gig economy project upon which this paper is based has two aims. Firstly, it shows the importance of visual exploration of economic practices and their impacts on our smart cities' landscapes. Digital platforms under which the sharing or platform economy is based have gained momentum in the last decade. It has not only entered into our economic practices, but also changed our spatial practices. For example, bi-cycle parking has been replaced with e-bike parking. This paper will present evidence of such changes in Melbourne, Brisbane and Sydney. The second aim is to reiterate the importance of photography as a method of exploring economic practices as well as changing spatial practices, which will be useful for economic and cultural geographers and visual sociologists.

Moving beyond tenure in understanding young adults' housing inequalities: Variations by class and context

Amber Howard Amber Howard, University of Amsterdam, University of Melbourne

Cody Hochstenbach, University of Amsterdam

Richard Ronald, University of Amsterdam

Literature surrounding 'generation rent' has been criticised for neglecting socio-economic inequalities, stimulating an emergent body of work addressing intersections between age and class in shaping housing opportunities. Despite this, two key conceptual and empirical gaps remain under-explored: the manifestation of housing outcomes beyond a binary owner-renter tenure framework and the drivers of inequalities aside from exclusion from homeownership. In addressing these omissions, this paper compares shifts in tenure (restructuring of rental sectors), housing conditions (affordability and precarity), and alternative housing situations (parental co-residence) between income groups and rental types in two contexts: Australia and The Netherlands. Findings illuminate increasingly multifaceted housing pressures faced by young adults, remarkable differences between private-renters and occupants of other tenures, and growing disparities between income-groups within the private-rental tenure.

City Design

Theorising the size of planned cities

Liton Kamruzzaman, Monash University

Hundreds of brand-new cities are planned around the world in every decade. The planning process of a city, new or existing, follows the prediction of their population sizes as they determine the demand for different land uses (residential, commercial, road network) and staged provision of goods and services (schools, hospitals, public transport). However, the population sizes of new cities are often determined in an ad-hoc basis due to a lack of a priori. As a result, evidence shows that while many cities are grappling with the challenges of increased urbanisation; others are experiencing a population decline, resulting in wastage of costly resources. This study develops a framework to determine the optimise size of any planned cities and operationalises the framework using data from Australia. The findings would help planners and policy makers to make an informed decision about the locations and sizes of potential new cities.

Sydney's Western Parkland City: Transforming an urban hinterland

Philip Graus, University of New South Wales

Robert Freestone, University of New South Wales

Simon Pinnegar, University of New South Wales

Simpson, Roderick, UNSW

This paper examines how an overarching urban and landscape design driven approach has shaped the urban form of Sydney's new 'third city', an 80,000 hectare greenfield area on the western periphery of the metropolitan area. In a departure from 'business as usual' land use and transport orthodoxy, the 2018 Greater Sydney Region Plan, A Metropolis of Three Cities envisaged the 50-kilometre long Wianamatta-South Creek as "the defining urban design element of the Western Parkland City".

Elevating urban and landscape design to a regional scale is intended to deliver an integrated blue and green infrastructure to frame a cool and green Western Parkland City. Parkland Oriented Development (POD) challenges the prevailing Transit Oriented Development (TOD) paradigm by starting with the landscape, locating density near amenity, and designing the transport to fit.

A conceptual framework examines the interactions between the domains of metropolitan planning, urban design, and those influences 'beyond' planning. The term 'beyond' planning acknowledges the economic, political, governance, and other forces with powerful spatial and scalar attributes (Brenner 2019). This approach seeks to better understand 'how urban design worked', through an examination of its role within a complex environmental, economic and statutory planning process, challenged by powerful current orthodoxies.

Drawing from primary, documentary and the active involvement of two authors, three strategic planning and urban design 'projects' provide insights into the 'beyond business as usual' aspects. The first, the Wianamatta-South Creek Strategic Business Case, was the first green infrastructure project included in Infrastructure Australia's priority list. The second two, the Western Sydney Aerotropolis Plan and Aerotropolis Precinct Plan respectively, encircle the new Western Sydney International Airport, 'giving effect to the broader vision. Collectively they provide insights into how landscape-driven design is challenging current orthodoxies and the issues arising.

What emerges is the importance of first defining a "business as usual" approach and progressively contrasting it with designs and strategies responding to challenging and changing circumstances and context. The fit between POD and a landscape-led approach necessary to perform hydrological and ecological functions is evaluated.

The Adaptable City: paradigms and Models to face current challenges in Australasian Cities

Mirko Guaralda, Queensland University of Technology

Urban systems face continuous challenges and innovations that impact in different ways economic, social, and environmental ecosystems of our cities. While soft systems are generally dynamic in responding to changing conditions, urban form follows a different timeline, and the response to structural adjustments is generally slower and deeper. Today we recognise the need for our cities to evolve, morph, and respond to current challenges, such as climate adaptation, pandemics, deep changes in our economic models, migration, or socio-cultural dynamics. The debate about adaptation often suggests "new" paradigms of urban forms, which can provide more liveable, sustainable and inclusive urban environments. Each new paradigm suggests a strong brand and key elements for a successful city. Upon deeper reflection, it is possible to evaluate how many of these paradigms are an updated reinterpretation of traditional pre-industrial urbanism.

This paper briefly reviews recent and current urban design paradigms, specifically focusing on urban density, walkability, proximity, and land uses. It then builds on the relationship between building types and urban form to enquire how urban adaptation can be facilitated through a multi-scale and transdisciplinary approach. The paper enquires about the tangible physicality of the city from an urban design perspective, investigating the morphology and morphogenesis of natural and built environments, building typologies, public spaces, landscapes, and infrastructures. The investigation is structured through a contextual review of local and international case studies to highlight how the disparate theoretical ideals of current and recent urban design paradigms have been translated into best practices that can guide the development or re-development of cities in Australasia.

Paneke Pōneke – Accelerating rebalancing the streets of Wellington

Vida Christeller, City Design Manager, Wellington City Council

In Wellington we're preparing our city for the future by rebalancing how we use our existing street space to give people more options for how they get around. Wellingtonians have asked for better transport options and action on climate change and housing - to do this we need to change the way we live and move around our city. Our population is expected to grow by up to 80,000 people over the next 30 years, which will dramatically affect the way our city looks, feels, and operates. If we continue at our current rate of car use, our transport network will be choked with congestion. Making it safe and easy for people to ride, walk, and use public transport for everyday trips is key to rapidly cutting emissions and making the city more liveable. Paneke Pōneke is our plan for a citywide bike network that will be delivered alongside improvements for people walking, scooting, and using public transport. More options mean we can get the best use out of the limited space in our compact city. When more people can live without owning a car, we free up space that would have been needed for carparking for other uses like more housing or shops or public spaces. We are working closely with mana whenua to identify sites of significance along the route and in the street changes through murals and identification of the streams beneath the city. Our engagement approach is also a step change for how we engage and consult Wellingtonians focused on early engagement to understand how people use and feel about the routes. This work feeds directly into designs which we then consult on and following installation engage on again to understand lived experience and make changes.

Retrofitting dead-end street patterns for 15- and 20-minute neighbourhoods in Australasian cities

Alice Vialard, University of Sydney

Ian Woodcock, Unievrsity of Sydney

The transition to 15- and 20-minute neighbourhoods for Australasian cities must be achieved the context of some of the world's most extensive low-density car-dependent suburbs. Planning for suburban neighbourhoods going back as far as models such as Clarence Perry's popular Neighbourhood Unit and the Radburn model proposed pedestrian accessibility to a range of neighbourhood functions within an over-arching framework of car access. Suburban growth in Australia's capital cities in recent years continues to follow models developed in the 1950s, '60s and '70s that were even more deeply premised on car access and automobility-related safety, and largely without the aim of incorporating non-residential functions - these being increasingly segregated by the rise of malls and business parks. Despite relatively long-standing calls in strategic and local policy (among many other official and unofficial voices) for greater walkability and local liveability, this approach is still deeply entrenched today.

Culs-de-sac and T-junctions have a significant impact on pedestrian accessibility. State regulations still require T-junctions to be implemented in new residential development to slow down traffic and minimise the potential for car-related collisions. Using metropolitan Sydney as a case study, we identify the presence of T-junctions and culs-de-sac at the scale of the metropolitan area to highlight their impact on accessibility and connectivity using space syntax measures. Building on this analysis, we examine a series of neighbourhoods for their potential to transition at the level of structure to improved walkability. Our analysis and speculation explore a series of targeted and minimum changes in the layout to test potential retrofitting options that would allow for increased connectivity that will be needed to facilitate transitions to 15- and 20-minute neighbourhoods, and by extension, the 30-minute city.

Tactics Dynamic Engagement in Regenerative Urban Design

Joseph ALDRIDGE, Victoria University of Wellington

Haley HOOPER, WSP

Andre BROWN, Victoria University of Wellington

The world and our position in it, is a constantly evolving context and relationship. A regenerative approach invites us to see ourselves and the built environment as a responsible part of natural systems, asking us to do "less bad, more good". Community participation and active engagement are recognised as critical to more equitable regenerative urban design practice. A mosaic of histories, futures, understandings, and priorities exist within our communities. Challenging the regiment of the status quo, integrating enduring environmental, social, cultural and economic outcomes and providing better ways of communicating with our various communities is extremely important.

In this paper we explore a new interactive method for achieving genuine and improved community engagement for Australasia. This paper presents the rationale behind the development of a "tactic + scenario" card-based engagement and design tool that communicates a wide range of ideas and information related to regenerative design to community groups. The process encourages active playful engagement and exchange between participants, where interrelationships, systems and concepts can be rapidly and easily established, explored, changed and discussed. The tactics cards enable potentiality to be considered broadly, from macro visions through to micro actions.

A core driving force behind the development of this methodology is the need to facilitate more accessible engagement formats, to encourage shared understandings and support diverse idea generation. This system enables complex cross-ranging topics to be explored in a relatively simple way, utilising the cards as prompts. The community must be engaged and active in decision-making around potential design changes, particularly those that directly affect them. In conclusion, it is argued that effective engagement is critical to the implementation of successful regenerative design and that an accessible card-based design tool can be an important tactic in facilitating better engagement, and thus stronger community outcomes and participation in the making of place.

Key Words: Regenerative, Design, Community, Dynamic Engagement, Practice

Beyond dichotomies: Multi-scalar agile living design in peri-urban areas

Rashed Azizi, PhD Candidate, Monash University

Urban fringe growth concerns many actors usually categorised in dichotomies such as formal/informal, domestic/non-domestic, and Global South/Global North. But it is neither binary nor a simple continuum. For example, the definition of the home goes beyond the domestic/non-domestic binary through the contemporary shift in work/life/leisure habits and the expansion of urban life into the dwelling. Dichotomies in the urban growth process need to be challenged by exploring the blurring boundaries and comparing them across the globe while acknowledging the different histories and contexts. It may lead to a better understanding of the wicked situations in urban fringes, facilitate achieving more liveable cities, and overcome socio-economic and spatial inequalities.

Like many cities worldwide, Australian cities face multidimensional problems regarding urban fringe settlements, which are hard to pin down and consequently highly challenging to solve. Place-specific and multi-scalar thinking that considers the social, economic, and built quality factors across buildings, developments and neighbourhoods is needed. This research investigates another lens to the (re)reading, (re)looking and understanding peri-urban living beyond dichotomies. The multi-scalar design-led approach proposed by this research enables the possibilities for developing housing design as a continuum of architectural/urban spaces. It examines how multi-scalar design thinking can contribute to alternative agile living outcomes and long-term sustainability in the peri-urban area.

In many urban studies, comparative approaches have provided the grounds for innovative alternative design through varying cases and addressing a greater diversity of urban outcomes while remaining rigorous and plausible. It sheds light on new conceptual territories in urban design by learning from elsewhere and proposing alternative urban transformation approaches. The two cases in this investigation, Melbourne (Australia) and Sanandaj (Iran), have similarities and differences, each struggling with urban sprawl and a lack of affordable housing. The paper outcomes visualise alternative settlement patterns with a comparative approach for enhancing the quality, sustainability and equity of both Melbourne's and Sanandaj's fringes. It presents a series of speculative growth scenarios in the selected urban edges in response to current agile living needs.

NIMBYism in Geelong: reframing resident opposition to urban intensification through a behavioural science lens

Suzanne Barker, Monash University

Carl Grodach, Monash University

Liton Kamruzzaman, Monash University

NIMBYism (Not In My BackYard) is often framed as residents opposing urban intensification because their opposition is motivated by reasons associated with their self-interests such as property values. NIMBYs are considered by some as a roadblock to the densification of traditionally low-rise cities contributing to housing affordability concerns and declining home ownership rates. Yet this framing of resident opposition does not consider the potential for socio-psychological influences on resident attitudes towards densification. This paper explores two case studies in Geelong, Australia where the local council proposed Urban Design Frameworks to transform inner areas of the city in line with compact city objectives. The study explores resident attitudes to the proposals through a behavioural science lens drawing on place attachment, judgement and decision-making literature, and theory related to the Heuristic Systematic Model (HSM), an attitude theory. It draws on survey and interview data collected from residents living in the case study areas alongside contextual data about the two places. The research shows how proposed changes to the built environment which threaten valued tangible and intangible qualities of place are contributing to residents' interest and opposition to densification. The pejorative understanding of NIMBYism does not adequately represent the complex psycho-social reasons for people's opposition to urban intensification, which are often imbued with deep attachments to place. The paper discusses the need to develop enhanced community engagement approaches that utilise behavioural insights and recognise the psycho-social dimensions associated with resident interest in urban intensification proposals.

Evaluating the Impact of Public Housing and Urban Regeneration Programmes

Philippa Howden-Chapman, University of Otago, Wellington, New Zealand

Arthur Grimes, Motu

Karen Witten, Massey University

Crystal Olin, VUW; Guy Penny EMPlan; Sarah Bierre, Otago, Ralph Chapman, VUW

There is limited evidence on the performance and outcomes of community and government housing organisations nationally and internationally and a need to better measure and understand the pathways through which public housing organisations support wellbeing in their communities. The current Labour Government in Aotearoa New Zealand has responded to the shortage of affordable urban housing by funding large-scale civil infrastructure as well as public housing programmes. This significant growth in investment in these sectors has, after an initial lag, noticeably increased the number of public rental houses overall through the combined efforts of the Crown Entity Kāinga Ora - homes and communities, and a number of community housing providers.

The "Public Housing and Urban Regeneration: maximising wellbeing" (PHUR) research programme, is a five-year government-funded programme which is investigating the impacts on tenant and community wellbeing of different kinds of sustainable infrastructure and approaches to building public housing and supporting community formation. PHUR is a collaboration of several research partners in partnership with seven community and public housing providers ranging from very small community providers to a large Crown entity. There are several strands of research contributing to the systems approach taken: governance and financing; housing quality, including carbon emissions; energy; transport; and community formation. The outcomes are focused on tenant and particularly Māori wellbeing.

The outcomes assessed are based on three wellbeing frameworks (elaborated by the strands of PHUR): a version of the NZ Treasury Living Standards Framework; a Whakawhanaungatanga model of Māori wellbeing; and a Pacific wellbeing model; and are measured by tenant surveys and interviews. These results are being shared with our community partners in regular liaison meetings. In this presentation we will share results from our baseline data. There will be a follow-up survey and interviews in 2024, and further results in 2025.

Placemaking for Wellbeing: Examining Community Infrastructure Provision in Public and Community Housing

Crystal Victoria Olin, Victoria University of Wellington School of Architecture; and NZ Centre for Sustainable Cities, University of Otago, Wellington

Karen Witten, SHORE & Whariki Research Centre, Massey University; and NZ Centre for Sustainable Cities, University of Otago, Wellington

Placemaking and the provision of community infrastructure in relation to public and community housing is an overlooked, yet critical aspect of the wider housing and urbanisation landscape. Placemaking endeavours to cultivate people-people and people-place connections, thereby leading to enhanced wellbeing. Although placemaking initiatives have historically prioritised the middle class by emphasising leisure and consumption options, it is people living in public and community housing- who typically spend more time in their home neighbourhoods, and have lower incomes and greater health requirements than the general public- that stand to gain the most from such efforts. This presentation reports on preliminary findings from research conducted as part of the 5-year MBIE Endeavour-funded programme Public Housing and Urban Regeneration: Maximising Wellbeing. The research aims to understand how public and community housing providers in Aotearoa New Zealand approach placemaking and make decisions about development location and community infrastructure provision to achieve wellbeing outcomes. In other words, what is the theory of change about place and wellbeing that drives each provider's decision-making about whether or not- and if so, how- to provide or facilitate access to community infrastructure alongside individual dwellings? Research questions include investigating providers' partnership and collaboration with external organizations, the influence of Māori values on decision-making, and the prioritization of community infrastructure and placemaking processes in relation to tenant and community wellbeing. From a multidisciplinary, partnership-based approach, the research draws together information from multiple methods that include a thematic analysis of documentation about each provider's strategies and decision-making processes, a spatial analysis of their housing developments, and qualitative interviews with provider staff. Findings should be of interest to a range of people and organisations involved in shaping the physical and sociocultural environments in which people dwell and connect with each other and with place.

At home in substandard housing: perspectives from Healthy Housing Initiative whānau on housing, health and home

Elinor Chisholm, University of Otago, Wellington

Amber Logan, University of Otago, Wellington

This paper presents qualitative research findings on household experiences of the Healthy Housing Initiative (HHI).   The aim of the HHI is to improve the housing conditions of children at risk of housing-related illness through the provision of items such as curtains, heaters, bedding, draught-stoppers, as well as advocacy to landlords to install improvements and referral to other services.   We investigated participant experiences of the HHI, and explored their lived experience of 'home'.

The majority of participants reported that the intervention was a mana-enhancing and supportive experience, and led to improvements to health and quality of life, such as increasing disposable income, reducing the labour necessary to maintain the home, enabling people to use more parts of their home, and allowing them to host others in their home. Quantitative research has already established the positive impact HHIs have on household health. Our evidence illustrates how these impacts are achieved and reveals other benefits to quality of life.

Despite the impact of the HHI, many participants continued to live in concerning housing conditions that made it difficult for them to feel at home. We discuss how aspects of the homes both enabled and prevented them experiencing wellbeing and expressing their cultural values and aspirations.

Whose nuisance? Non-disaster flooding and why (we think) it matters for city design

Edgar Pacheco, WSP Research & Innovation

Vivienne Ivory, WSP Research & Innovation

We are unfortunately becoming all too familiar with disastrous floods. Severe rainfall events in recent years have damaged structures, changed our land, and affected communities. For decades there has rightly been much attention on these large-scale, damaging floods. However, repeated, smaller scale events are also emerging as significant. So-called "nuisance" flooding is characterised in the literature as being disruptive rather than damaging and localised rather than widespread. It tends not to trigger disaster processes such as an emergency response and disaster relief. So why would small-scale flooding make some more vulnerable to flood-related harm? And who is it a nuisance for? Asking these questions are pertinent as, in the long term, nuisance floods are not only potentially damaging to our communities but also related to how we design and build for resilience in our cities.

This presentation will discuss lessons from literature about nuisance flooding and present insights from a qualitative study underway with local authorities and residents from Waikanae. We will discuss how small-scale floods can lead to cascading social impacts through mechanisms such as stresses on the stormwater system, gradual changes to how land and properties are used, reduced insurability, accessibility and mobility, and housing quality. It will explore how the burden of nuisance flooding is unequally borne across Waikanae communities, for example, how standing water leads to damp housing and poor health, or why repeated, localised flooding becomes the norm for some communities and not others.

We will explore what the findings mean for the management of catchments through the design and maintenance of urban form. What are the risk factors that lead to small-scale flooding? Who gets to define what counts as a flood and therefore the investments needed to deal with it?

The findings from this presentation are part of a larger five-year research programme. The research programme, Mā te haumaru ō nga puna wai Towards a more flood-resilient Aotearoa New Zealand is developing a national picture of flooding to understand our changing flood risk and how it can be managed and mitigated. One research arm of the programme, Social Vulnerability to Cascading Events, is using historical stories of flooding in four case studies to identify the social impacts of flooding. The programme will provide stakeholders with

knowledge of the consequences of flooding events for communities beyond the direct damage and disruption impacts and the implications for urban design in our flood-prone New Zealand cities.

Walking with Water: a relational and respectful design to water planning in the city.

Ana Lara Heyns, Monash University

Melbourne's geomorphology and urban history have shown the changing landscape conditions that have displaced water through different design and colonial planning interventions in the city; and more recently through the contemporary planning approaches that have gained momentum globally, such as water-sensitive urban design, urban greening, and rewilding. Despite these approaches, water memory keeps surfacing, inviting us to reconsider our relationships with the more-than-human.

There is a growing concern in Australian planning (Matunga, 2013) about the lack of involvement of Indigenous People (Jackson et al. 2018). As such, there is a need to propose methodologies to deal with the spatial and environmental management that can include Indigenous people and Knowledge. Focusing on water as an element that overlaps human activity and natural underground landscape (Gandy, 2014), this project explores Indigenous and non-Indigenous collaborations developing a respectful and relational design. The Respectful Design framework developed by Sheehan (2011), is based on Indigenous Knowledge as pillar of the research and privileging Indigenous voices to respect their cultural ownership.

This study centres on the Indigenous paradigm of relationality as a holistic and expansive alternative to understanding human and more-than-human relationships to propose new methodologies for underground water management. In particular, the research analyses drained, displaced, and piped waterways to show how these design disciplines could develop their relational methods and contribute to planning studies and urban data.

Contemporary planning approaches consider waterways in city planning, however, the research reveals gaps that can be complemented with the Indigenous worldview. This paper captures the yarns and knowledge shared with Boon Wurrung Senior Elder N'arweet Carolyn Briggs that contributed to the creation of a Water Country-centred design studio. The studio engaged in relational design to speculate and respond to social and cultural water management issues through architectural proposals.

Looking at design through an Indigenous lens demands that planning and design interventions adhere to local cultural protocols. This progresses the decolonising of planning and design not only in Australia but worldwide. The research demonstrates how relational design can be an alternative to mainstream approaches, enabling a deeper understanding of the world in a continuous reflective and contemplative manner. It recognises the agency and knowledge of

waterways through a series of practices that involve a bodily and cultural experience. This environmentally and culturally sensitive practice critically enables planners and designers to address environmental challenges at varying scales including climate change.

Addressing biodiversity's "end-user" needs in urban development: An exploration of professional design practice

Cristina Hernandez-Santin, RMIT University

Marco Gutierrez, RMIT University

Sarah Bekessy, RMIT University

Cheryl Desha, Griffith University and Marco Amati, RMIT University

Design and planning professionals are well-positioned to support biodiversity conservation efforts within urban areas. Through the "Declare" movement, built-environment professionals are showing their commitment to use their professional practice to respond to the twin emergencies of climate and biodiversity. The focus on their activities is mostly dominated by the search for opportunities to achieve net-zero or even carbon-positive infrastructures as self-sustainable systems that heal the land. But how are design professionals exploring opportunities to enhance biodiversity through their practice? Between March-May 2022 and March-April 2023, we conducted semi-structured interviews with architects, landscape architects and sustainability consultants actively working to incorporate biodiversity outcomes into their projects. A thematic analysis using NVIVO software coding participants responses to 1) explore the array of design activities to integrate biodiversity thinking within their design process, 2) discuss the key barriers faced by the industry to mainstream biodiversity inclusive practices and 3) provide key lessons to other professionals who are starting their journey within this field of knowledge. This paper presents the findings emerging from these conversations. We identify key barriers within the design and development process that are preventing biodiversity inclusive design and discuss opportunities for change as perceived by design professionals.

'Sonotecture': A Musical Model for Designing Aural Experience in the Landscape

Stephen Fischer, Queensland University of Technology

Mirko Guaralda, Queensland University of Technology

Paul Donehue, Queensland University of Technology

Painter, Brett, Environment Canterbury

Gardens can offer rich sensory experiences to users from all walks, and research uncovers the healing benefits of the natural landscape in general, and gardens in particular. Breaking down successful gardens into elements is one of the approaches used to try to control users' sensory experience, even if this experience is generally rendered with a focus on what visitors see or do. The "sound layer" and its ability to contribute to a positive design outcome has largely been neglected so far in the design of gardens. Consequently, this paper suggests a different approach to the design of gardens, in particular healing gardens, arguing for the inclusion of soundscape to the landscape architect's toolkit.

The research has three phases. Phase 1 explores different typologies gardens applicable to healing garden design and more broadly; healthy places, and also explores sounds of existing gardens, recording these through "bin-aural" techniques, and analysing and transcribing them as if they were music. Primary data from this phase has consequently informed proceeding phases. Phase 2 aimed to understand the motivations of designers in designing for and/or with sound. A series of semi-structured interviews were carried out in the style of a design critique with a flow of dialogue between interviewer and interviewee. Phase 3 explores participants' reaction to, and consideration and application of a proposed soundscape design tool in order to help quantify and qualify its legitimacy, benefits and application. The findings of the research indicate the potential benefits of incorporating "soundscape thinking" into the design process; the role of soundscape as a part of designing "healthy places", and; the potential value in advocating for multi-sensory experience as design-driver.

The research proposes a framework to identify, analyse and qualify inter-observer experiences of aurally stimulating landscape environments, so to determine which sound stimuli add richness to the garden experience. Bringing out the musician in every designer, the proposed framework is intended to inform future research and to bring extended meaning to "composition" of the landscape.

Sustaining the Cemetery: Class, Care, and the Eco-Imaginary in Legacy Cemeteries

Samuel Holleran, University of Melbourne

Australian cities have grown rapidly in the last two decades. With an eye towards "peak death" (the passing of the Baby Boomer Generation), many cemeteries long closed to new interments are being considered for "grave recycling" programs where headstones are removed to accommodate new burials (a practice that is common in Europe, but not widely practised in Australasia). The reuse of burial space is contested by a number of on-the-ground community groups who have initiated "greening" and "grave care" programs, and see overgrown cemeteries as significant open spaces. The fight to sustain cemeteries provides a synecdoche to larger questions surrounding heritage, growth management, and ecology.

This project draws on fieldwork with large cemetery trusts and with the ad-hoc civic groups who tend, and advocate for the perpetual care of graves, in ageing cemeteries. It focuses on the community groups' disputation of grave removal and their alternative plans for graveyards as sites for green repose and "rewilding". Building on land use and planning data, historical records, and participant observation it illuminates the relationship between cemeteries and surrounding communities, particularly in the ways cemetery "reactivation" intersects with race, class, and Indigeneity. In probing Australian necrogeography, this project examines how cemeteries fit into larger conversations on ecology and stewardship; and how urban greening movements interact with emotionally-charged sites of memorialisation.

Exploring the relationship between high-density communities and blue-green infrastructure

Ziyu Wang, Lincoln University

Gillian Lawson, Lincoln University

Nada Toueir, Lincoln University

With increasing dissatisfaction with urban expansion, compact cities are becoming more common both in the developed and developing countries. This means more urban residents will live and play in high-rise residential areas. However, the definition of high-density communities varies regionally and open space requirements will likely also differ. For instance, in Germany, dwellings of five stories or more are considered high- density communities, while in China high density communities are divided into multi-storey dwellings (below 6 storeys) and high rise dwellings (10 storeys and above). Thus, more research is needed to focus on different types of communities in high-density cities and their open space needs.

Green and blue open spaces are beneficial to improving people's health and social connection. For green space, most research has concentrated on the quantity of green space rather than the quality of green space. For blue space, although some existing literature confirms that blue spaces can provide a unique landscape experience for people, it is still unknown what people prefer and what elements attract them to blue spaces. Most of the current research on green and blue spaces is based on Western cultural contexts, with very little on Asian countries such as China. Furthermore, knowledge of the choice of blue and green spaces in urban areas is still limited. Therefore, there is a need to explore people's preferences for blue and green spaces in urban areas and what specific elements attract local people, particularly in China.

Additionally, Covid-19 has changed the way people live, work and interact socially. Hence, there is a need to explore the relationship between different types of high- density communities, blue-green spaces in urban areas and, people's preferences and environmental choices in a highly populated country such as China, especially in a post Covid-19 period. Understanding people's current preferences for blue-green infrastructure and what elements attract them to blue-green spaces may provide reasonable evidence for improving urban blue-green space planning and design in diverse riverine or high-density cities in China.

How could a better understanding of social infrastructure networks benefit the design of cities in Australia and beyond?

Natalie Miles, University of Melbourne

Social infrastructure was included in Infrastructure Australia's national audit for the first time in 2019, suggesting that social infrastructure is increasingly recognised by Australian governments and planners. In this audit, social infrastructure networks are repeatedly mentioned, but not defined. Readers are left wondering, "What is a social infrastructure network"?

Unlike other infrastructure networks, social infrastructure is varied in form, including assets such as municipal libraries, state-government schools, neighbourhood houses and community gardens. These types of facilities are generally regarded as stand-alone assets, often creating a barrier to them operating as a network.

The integration of primary and secondary schools into social infrastructure networks may similarly be hampered by a siloed approach to planning and facility design. Schools are often considered separate to their surrounding urban contexts: a missed opportunity given the vital role that schools can play as community assets.

This paper presents a methodological framework for researching and understanding social infrastructure networks, including proposed techniques for mapping existing and potential networks. Through mapping existing social infrastructure networks, new facilities can be planned and designed in ways that strengthen and/or extend existing infrastructure. A networked approach to social infrastructure may minimise unnecessary duplication of facilities and maximise benefits to communities, governments, and cities by providing a framework for integrated planning and use.

The research employs a mixed-methods approach, including a scoping study looking at social infrastructure in the UK; a siting study with local government in Victoria, and a method development study with design thesis students at the University of Melbourne.

Preliminary research outputs including network analysis and maps will be presented alongside a literature review and methodological framework for social infrastructure networks, including schools. This PhD research informing this paper is connected to Building Connections: Schools as Community Hubs ARC Linkage project.

The Impact of Smart Technologies on People-place Relationships and Loneliness in Urban Open Space: A Study of Young Adults

Xia Xue, University of Sydney

Since the start of the Smart City movement, a greater number and more diverse forms of technology have been placed and used in our city space and are intertwined with our social life. Technology enables our cities to be smarter places with greater efficiency and productivity, it is nevertheless a double-edged sword that may reinforce urban dwellers' loneliness (Slade, 2013). This study intends to contribute to the theoretical discussion on public space planning and design in the Smart City era, with special attention given to the issue of loneliness among young city dwellers. Loneliness is not only an individual psychological status but also has become a collective social phenomenon (Yang, 2019). My research explores the relationship between loneliness, technology and public open space with a focus on the young adult population who are found to be one of the most vulnerable groups to loneliness (Lim et al., 2019). Young adults are often assumed to be well-connected as their social relationships seem to be easily retained online; however, their loneliness should not be forgotten.

This research asks the question - how do smart technologies in public open space impact people-place relationships and perception of loneliness? It uses a case study methodology and qualitative methods to answer my research question. The study investigates three existing forms of smart technology in public open spaces - smart furniture, smart device and smart festival as case studies. These three case studies represent three modalities of smartness that are mediated in the public realm and are likely to lead to various scales of social interactions. The three cases are then studied by interviewing three groups of smart technology stakeholders which include young adult users, technology designers and implementors, and academic experts in urban and loneliness fields. The study has finished data collection. It reveals the young public's perception of 'smart' and smart technology's impact on the forms and functions of public spaces. Public life with the presence of smart technology has become fluid between digital and real spaces. Furthermore, whilst many uses of smart technology did not directly link to loneliness, public spaces and smart technology can affect young adults' social relationships and expectations, and further influence their loneliness.

Beyond "safety", what designing better cities for women and girls actually looks like

Grech Estelle, Transport for NSW

No-one would argue that designing better cities that are safe, welcoming and inclusive for women and girls is an important.

Studies repeatedly show that women have to think twice about going out during the day and night. This experience of feeling unsafe or a lack of belonging in public spaces mean women and girls can be restricted from participating in work, play or study.

But when it comes to designing a gender-inclusive public space, street or suburb often people struggle with knowing exactly what to do, resorting to installing more CCTV cameras or greater levels of lighting as the solution.

Designing cities for women and girls is far more than just thinking about safety, it's looking at how we can fundamentally reshape our city to enable women to thrive, not just survive. It's also well documented, that when places work well for women, they also work well for people of all genders, ages, abilities and cultural backgrounds.

This talk seeks to provide a series of global best practice case studies across the four core themes of urban governance and representation, mobility, housing and public spaces. It will share lessons learnt from a six week Churchill Fellowship travelling to over 14 cities in Europe and the USA.

Case studies shared will be diverse, ranging from the story of community, grassroots organisation "Monumental Women", who successfully campaigned to install the first statue of non-fictional women in New York's Central Park, or an overview of the world-leading Gender Mainstreaming governance model in Vienna where gender budgeting is required by law.

Housing projects specifically designed for the needs of older women in London, playgrounds designed by teenage girls in Sweden, as well as how Barcelona's super-blocks have advanced Gender Equality will also be explored.

By being exposed to world-leading methods, practitioners will be inspired to try new approaches in their next urban design or planing project, so that the place at question a more caring and just city not just for women, but for all.

Eliciting empathy as a segway for biodiversity inclusive design: Activities for designers' engagement with local biodiversity

Cristina Hernandez-Santinᵃ, Paloma Bugedoᵃ, Ian Alcazar, Kirsten Suresh Sokolowskiᵇ, Evelyn R. Matsumuraᵇ, Derlie Shinya Mateo-Babiano ᵇ

ᵃ RMIT University

ᵇ University of Melbourne

Biodiversity inclusive design calls for built environment professionals who can empathise with the non-human. Empathy, or the ability to understand and share the feelings of another, enables designers to understand the point of view, values, priorities and needs of a project's stakeholders. For the non-human, "empathy" means actively trying to experience a space through non-human perspectives as well as experiencing a "connectedness" or emotional bond towards those non-humans we empathise with. But how can we elicit designers' empathy towards the non-humans? Through a collective autoethnography, this team of seven authors explores our collective experience in teaching or learning about "Nature in Place". Aiming to design a regenerative placemaking intervention, the co-authorship team engaged in an intensive two-week design process (Feb 2022). Within it, we experienced three key activities to learn about local biodiversity and position ourselves from the non-human perspectives. Our three "Nature in Place" activities included 1) individually creating a non-human persona from the local pool of species, 2) engaging in a predator-prey game to explore species interactions and attempt to experience the site from a non-human perspective, and 3) drawing a connectivity map to identify key resources and pathways for at least one of the species we created a persona card for. One year later, co-authorship team comes together to reflect on our experience. The nature in place activities transform biodiversity into visible personhoods which elicit an emotional response of empathy, advocacy and stewardship. We found that the process of active engagement in each of the activities was critical to elicit sough after emotional responses and discuss opportunities to embed such activities in our professional practice. We also identify the need for subsequent activities that re-elicit connectedness for local species to ensure biodiversity outcomes remain strong throughout the whole design process.

Radical Generosity in Public Spaces - Reimagining shared amenity in Pōneke's urban spaces for a life more publicly lived.

Zoë Glentworth, Victoria University of Wellington

Rosie Scott, Victoria University of Wellington

Anna Michels, WSP

In the face of the climate crisis, many countries are intensifying cities in a bid to reduce urban sprawl and minimise carbon production. In Aotearoa New Zealand we are observing similar trends, with many new-built homes having smaller living spaces and private outdoor areas. Aotearoa is a small, colonised country, where the legacy of 20th century suburban backyard sections impacts cultural expectations of how people socialise and spend time outdoors. As our major cities intensify, it is critical that the public amenities grow alongside to off-set reduction in private space whilst also reclaiming cultural narratives and honoring Te Tiriti o Waitangi. These new public spaces need to recognise the social and cultural shift that they facilitate.

This paper presents an interdisciplinary design research project that explores how industrial design and urban design combine to create solutions that better meet the needs of communities in Pōneke Wellington (NZ). The project analyses the shifting built and social environments of Wellington, and proposes new possibilities for industrial design interventions that support and foster a cultural shift toward social inhabitation of urban spaces. The project is a provocation for rethinking the social potential of public space, exemplifying an approach centring the cultural and social needs of users and communities in order to enrich and transform urban environments. Underpinned by indigenous knowledge and values (Tikanga Māori), the research promotes "manaakitanga" or generous hospitality, and aims to develop inclusive, accessible, culturally responsive, and generous social spaces supporting a transition to a more liveable city.

Hearing marginal voices through design: A case study of youth participation

Deena Ridenour, University of Sydney

The elevation of public opinion to influence the planning and design of major urban renewal precincts is essential to create better urban environments, responsive to the aspiration and needs of all citizens. Yet discovering people's values for an emerging mixed use, high density urban precinct remains challenging. These projects are often driven by short term development goals, diverse consultancy teams, government planning requirements and political will, which overshadow the local public voice. Public participation in these complex urban projects is often limited to vision workshops, commentary on development scenarios, or statutory consultation processes. Enabling a broad range of public voices is counter to a consultation process that seeks consensus and compliance. Marginalised groups are often excluded in this process. One such group that is consistently overlooked are adolescents. Young people are the inheritors of the urban futures created by these projects and have different views from those captured in conventional community consultation. While recent practice has seen the growing engagement of children and young people in the design of youth specific projects and open spaces, their voices are largely unheard in more complex projects that shape major urban areas.

The research investigates how a participatory design process can enable adolescents to discover and voice their opinions for a major urban renewal site in Sydney. Secondary school geography students were engaged in a series of design activities to interrogate their aspiration and values for the Blackwattle Bay Precinct, currently under renewal by the State government. Images and drawings were used to analyse the existing site, construct future narratives, and create scenes of a future waterfront. Through this reflective process, participants explored their assumptions and evolved their personal views for the spaces, form, and experience of the precinct. The outcomes of the design investigations were evaluated in comparison with the formal consultation outcomes by government. The study expands on existing youth friendly cities criteria to demonstrate how a place specific design process can empower a more nuanced and informed youth voice.

Adaptive Urbanism: exploring a public sector-led, participatory design approach to social, environmental, and cultural inequities.

Anne Cunningham, Consentire

Jena Western, Waka Kotahi

The Waka Kotahi NZ Transport Agency, Streets for People (SfP) programme aims to make it faster and easier to reallocate street space to enhance the safety, accessibility, and liveability of streets throughout Aotearoa New Zealand. To achieve this the programme is developing a new design approach to delivering strategic planning objectives- one that responds to limitations with Tactical Urbanism. To mark this important difference, we have called this approach: Adaptive Urbanism.

Streets for People is a programme to build national capability, using action research to guide exemplar projects led by multi-perspectival teams (integrating design professionals and local people). SfP includes teams from 13 local authorities who have identified projects within existing strategic plans that can be accelerated and supported by Adaptive Urbanism. The exemplars focus on mode shift e.g., walking and cycling, whilst providing opportunities for more and better engagement, particularly with groups such as mana whenua which makes them particularly applicable in an Aotearoa NZ context. Findings have and will help inform wider regulatory changes.

SfP 2021-2024 builds on the Innovating Streets Programme (2020-21) evaluation, a subsequent literature review and stakeholder workshops. A key concern emerged, explored in this presentation: in what ways, and to what extent can public sector planning authorities adopt participatory design methods, e.g. tactical urbanism, to support strategic planning when these methods were originally developed by local activists intent on disrupting strategic planning? In addition, we are curious about how addressing this concern would explain and alleviate tensions, manifested as project-level confusion around e.g., roles, efforts, and decision-making authority.

In examining this arena at the intersection of design and participation methodologies, we will provide insights into how, and under what conditions, Adaptive Urbanism can enable and limit urban design to challenge social, spatial and cultural inequities and injustices in the wider context of strategic planning, and within the imperatives of climate change. Our criticality is

intended to fuel debates about the extent that public participation can accelerate and make more just, the design of streetscapes.

Colouring Australia: an new open data platform for Australian cities

Matthew Ng, City Futures Research Centre, UNSW

Christopher Pettit, City Futures Research Centre, UNSW

Polly Hudson, The Alan Turing Institute

Parisa Izadpanahi, Deakin University

The building stock forms the principal physical component of cities. They represent society's most visible cultural and economic resource; they are the venues of home and work; and their spatial distribution profoundly influences the networks and flows of people and resources. Buildings also produce over 40 per cent of the world's carbon emissions and have the highest potential for energy reduction globally. Additionally, the appropriate reuse of older building stock, with its diversity in age and heritage, is often considered critical to urban regeneration and revitalisation strategies. These are some of the reasons there is a pressing need for detailed information on these multidimensional aspects of the building stock to better understand the different urban processes and dynamics of cities and to support research and policymaking. However, accessing and obtaining building-level data remains difficult in Australia - particularly in comparison to countries in Europe and Asia - and, even in the advent of big data and the push towards data-driven policymaking. The question thus arises: if urban data will continue to shape decisions on our urban futures, how can this data be democratised with transparency and accessibility so that residents, as critical users of cities, can be involved in the strategy development process? In light of this, we present Colouring Australia as a new open data platform for Australian cities. Colouring Australia harmonises and integrates numerous unconnected datasets with multidimensional urban characteristics, including urban resilience, sustainability, diversity, and accessibility. It further explores how, via a coordinated data management system, knowledge of the built environment can be disseminated and used by the general public and actors in public and private institutions. In particular, we focus on presenting an accessible and user-friendly interface to reduce technocratic divides and ease how data can be explored, evaluated, and modelled. At the platform's backend, Colouring Australia forms a key node in a broader research programme, the Colouring Cities Research Programme, co-developed at the Alan Turing Institute in London. The programme brings together academics from over 12 countries working on the same code base to test a novel low-cost academic governance model to advance open urban research and produce a new standardised building-level dataset that is comparable, harmonised, and interoperable. Lastly, we present a

use case for Colouring Australia, which utilises direct API feeds from the NSW Planning Portal to enable public engagement in the planning process across New South Wales in a novel way.

City Cultures

Music and cities: A research agenda

Sebastien Darchen, University of Queensland

In this paper, I reflect on past research including work on electronic music scenes in Australia as well as internationally and on subcultures (Punk and Goth) in the Brisbane context. I am sharing the value of learning about urban environments and the cultural history of cities through the lens of music. I am also presenting a new research project on how musicians perceive urban environments and how this experience of the city translates into their music and lyrics (music-making). I will present the methodological component and challenges associated to this type of research at the intersection of urban studies, cultural studies and media studies. As music is always evolving and urban environments are also constantly in transformation, analysing the link between the two is a fascinating urban research agenda. The paper also touches on the impact of the global pandemic on cultural production (the music industry) in the Brisbane context. Basically, the paper presents results of completed research but also present a research agenda that will combine the disciplines of planning, urban studies and cultural studies. This research agenda can be applied in different city settings and the paper highlights some of the benefits of this type of research for the discipline of urban studies.

BTS, K-pop, and Urban Pop Culture: Impacts on Cities and Communities

Shelley Hoani, Te Wānanga o Aotearoa

This paper explores how BTS, a seven-member K-pop boyband from South Korea, has influenced urban pop culture and the resulting impacts on cities and communities. Through a literature review and case studies of cities that have embraced BTS and its associated culture, I examine how BTS and urban pop culture intersect, and how they influence and impact cities and their communities.

Findings suggest that BTS has contributed significantly to the globalization of K-pop, creating unique opportunities for cities to promote their cultural identities, attract tourism, and foster social cohesion among diverse communities. The influence of BTS has also led to the emergence of a vibrant fan culture that transcends national boundaries and creates new forms of social connectivity.

An analysis of case studies identifies the various ways in which BTS has impacted cities and communities. These include the rise of K-pop tourism, the emergence of BTS-inspired trends, and the growth of K-pop-related businesses such as dance studios and merchandise shops. Additionally, BTS has inspired charitable giving and social activism among its fan community, which has positively impacted local communities.

Overall, this paper highlights the significant influence of BTS on urban pop culture and its potential to shape the identity and vitality of cities around the world. By understanding how BTS and urban pop culture intersect and impact cities, policymakers and urban planners can make informed decisions about how to engage with them for the benefit of their communities.

Melbourne is the star: Homicide as documentary

David Nichols, University of Melbourne

The 1960s and 70s were a time of major change in Australian cities, as they sought in many instances to shake off their Victorian-era legacy and revision their values and capacities for the 21st century. The first swathe of NESB migrants were firmly established in Australia; this cohort both contributed to and reinforced a growing understanding of what large Australian cities might look like as they shook off their British influences while tentatively adapting other models.

The Melbourne crime drama series Homicide is often lauded for its tightly scripted action (based, its producers claimed, on genuine police files). What is perhaps less appreciated amongst practitioners of urban history and heritage is that Homicide is also, in many instances, a document of the growth and development of Melbourne between 1964 and 1977. Almost all episodes of the program adhered to a production formula requiring a ratio of approximately 1:2 location to studio filming. The vast majority of the location work was undertaken in the streets of Melbourne's suburbs; in 1968 producer Hector Crawford noted that viewers could "easily identify themselves with the participants and the locales". Most episodes of Homicide records 13 years' morphology of Melbourne of half a century ago- this is true also broadly, in its liberalising attitude to LGBTQ+ characters, to NESB communities, and to issues such as sexual assault, over time.

Typically, while the program used real placenames, it fictionalised street addresses; many of these, particularly the down-at-heel cottages of inner city areas such as Richmond or Abbotsford, are difficult to identify. Other places, however, are readily locatable. Clearly many businesses, for instance, requested their exteriors be "in shot" with names and phone numbers visible: potentially lucrative product placement. Many episodes took place at upmarket and new apartment developments, with names and locations shown to entice aspirational viewership. A significant quantity of episodes also use street signs generically, as a focus or establishing point to begin a scene.

This paper looks at the potential for use of Homicide and similar series not merely as illustrations of the revival of antipodean screen drama "which they are" but also as documentary of the development and remaking of the Australian city, in this case specifically Melbourne, in the postwar era. It also suggests that Homicide, as an ostensibly gritty program

based on "real life", can provide insight into mainstream beliefs and urban identities in the period.

The public library and diverging urban futures in Aotearoa

Salene Schloffel-Armstrong, University of Auckland

In the face of escalating, intersecting crises, the possible futures for cities of Aotearoa are currently assembling. Despite a growing recognition of the public library's central role as a form of social infrastructure in the contemporary city, its ongoing existence is again under question in some places. Local governments across the globe - and within Aotearoa - are taking vastly different approaches to the ongoing funding and support of their public and social services. In this paper I analyse the discourses of infrastructural provision surrounding two central city libraries - in Wellington and Auckland - to compare the potential urban public futures in Aotearoa that are currently being assembled and made. Drawing on literatures of care and infrastructure I explore how public libraries are being framed as essential city services in some locales, yet are being dismissed as "nice to have" luxuries in others. As the fortunes of Aotearoa's public libraries shift and change, I explore how different atmospheres of political possibility assemble, to aid narratives of defunding, or investment and expansion (Anderson, 2009). In this paper I ask - as the "slow spoiling"(Penny, 2020) of public services experienced recently in the United Kingdom reaches our shores, how do we resist and imagine more expansive public urban cultures?

Creating identity in a multicultural city: Temples as markers of changing cultural landscape in Melbourne

Kiran Shinde, La Trobe University Australia

Recent years have witnessed a surge in the building of Hindu temples in Melbourne resulting from a significant presence of migrant communities practicing Hinduism. In this paper, I present collective study of three temples that have moved beyond their traditional role as places of worship and emerged as the new icons of cultural identity for migrants. Using a detailed study of the built character of these temples (layout, facades, features, and symbolism), I highlight how "ritual space" and "imagery" are two most significant aspects that characterize these new cultural markers. They negotiate between the traditional principles of Hindu temple architecture with the planning requirements and development control regulations of local councils. The temples borrow from the Hindu religious tradition the cloister-kind of layout that contains several shrines of many types of deities due to multiplicity of gods and godly manifestations. However, there are modifications - the temples house deities that may not be connected through mythological legends or origin stories. This is to provide a common place of worship for groups that belong to different nationalities and ethnicities. Accordingly, altars are reserved for the most popular Pan-Hindu deities such as Krishna, Ganesha, Shiva, etc, whereas the cloisters have smaller shrines dedicated to deities that are of ritual importance to specific communities. These places are multifunctional and serve as space for processions, community gatherings, weddings, and religious engagements. The building envelope is dictated by planning guidelines, but the interiors are created with embellishments that are based on intricate designs and mythologies to provide the religious imagery that visually connect the structure as a temple. Thus, assimilation and hybridization are important features of the modified Hindu temple architecture in a diasporic setting. While the places of worship serve as anchor of identities for migrants, their interaction with the surrounding communities and places generates a new space that has a significant cultural, social, and political meaning for the city.

Planning in Sydney is exacerbating ethnic segregation and inequalities

Awais Piracha, Western Sydney University

George Greiss, Western Sydney University

Sydney's affluent eastern and northern suburbs have the best access to employment, public transport, social, cultural, and educational facilities, better health opportunities, walkability and a more favourable climate. However, due to hyper-community activism, their residential development has been practically stopped in recent years. Meanwhile, urban development mainly occurs in the outer Western Sydney fringe, where there is an unfavourable climate, minimal access to social and physical infrastructures, inadequate employment opportunities, and a lack of public transport.

Western Sydney's growth is distinguished by its significant concentration of international migrants. According to the 2021 census data, 42.81% of the population in Western Sydney were born outside of Australia, with the Middle East, South Asia, Southeast Asia, and East Asia being the top four regions of origin, contributing 29.41% of the population in Western Sydney. As international migration to Australia accelerates, Western Sydney is again expected to accommodate most of the population growth from these new arrivals.

The international migrants residing in Western Sydney possess high education and qualification levels. They are twice as likely to have completed a university degree, with 38.34% holding either a Bachelor's, Graduate, or Postgraduate degree, compared to Western Sydney's overall average of 20.59%. Furthermore, a more significant percentage of these migrants are employed in managerial and professional occupations, with 19.43% working in these sectors, as opposed to 15.10% for the general population of Western Sydney.

However, despite their high levels of education and professional qualifications, most migrants in Western Sydney face the challenge of travelling long distances to access professional jobs located in the East and North of Sydney, which results in increased expenses and time consumption. Moreover, the absence of adequate public transportation in the region further compounds their predicament, as residents have to rely on personal vehicles not only to reach their workplaces but also to access everyday necessities.

The central argument of this paper is that the migrant population in Western Sydney is facing a lower quality of life due to Sydney's planning policies, which prioritise Greenfield urban development in the West while restricting residential development in the affluent regions of the

East and North. This has resulted in unintended consequences of considerable disparity in living conditions and an escalation in ethnic segregation. The paper highlights the urgent need for policymakers in Sydney to address these issues and take necessary actions to ensure equitable access to essential facilities and services for all residents, irrespective of their location or background.

Localising migrant support infrastructures in small towns - experience from New Zealand

Ashraful Alam, University of Otago

Etienne Nel, University of Otago

Migration to regional and rural New Zealand is not a new phenomenon; however, the policy changes in the 2000s allowed for more diversified migration streams resulting in an influx of distinctly visible multi-ethnic populations to small towns where they have taken employment primarily in the primary and secondary sectors. While a host of policies, programmes and actors vertically and horizontally connect at the national, regional and local levels to support migrants, little is known about how localised small-town realities and constraints shape their newcomer support infrastructures. The study is based in Southland and Otago regions, the southernmost regional areas in New Zealand's South Island, in which many small towns in recent years have received significant migrant and refugee populations from Asia, Latin America and Africa. The dominant assumption is that these small towns struggles to support their newcomers due to the perceived disjoint between higher level efforts and how they were translated into tangible welcoming support locally, which this study qualitatively examines. Aligning with the most recent infrastructural turn in urban studies and geography literature that recognises infrastructures as socio-technical systems made up of people, policies and practices, we discuss three thematic areas: impasses, anchors and self-helpism that shape the existing migrant support ecosystem in small town New Zealand. The findings provide useful insights on how to localise migrant support by removing many cultural and institutional barriers that hinder newcomer settlement in small towns.

Super Diversity Trends Across Australian Cities

Hayley Henderson, Australian National University

Helen Mok, SGS Economics and Planning

Kishan Ratnam, SGS Economics and Planning

Spiller, Marcus, SGS Economics and Planning; Sullivan, Helen, Australian National University

We presented a methodology during the 2021 SOAC conference to identify culturally "super diverse" local areas across Australian cities and assess whether they have been stable in this diversity over time (e.g. are factors like gentrification reducing diversity). This research forms part of a larger study that commenced in 2015 as an international comparative project, funded by the UK's Economic and Social Research Council, to examine collaborative governance in urban policy and the effects of crises. An Australian case study was conducted on the collaborative governance of urban revitalisation in Central Dandenong, Melbourne, Victoria (Davies et al., 2022; Henderson, Sullivan, & Gleeson, 2020). One of the findings from the first phase of the research was the ethic of pluralism observed in some aspects of collaboration in the Central Dandenong experience, attributed to the recognition and extent of cultural diversity in local institutions that has remained relatively stable over time.

In a new phase of research, commenced in 2020, we have set out to define super and stable diversity for Australian cities based on international approaches, and then map the evolution of super diversity trends between 2011 and 2021. This presentation will offer a brief overview of the methodology we adopted and the results across Australian cities. Employing a composite measure of super diversity including country of origin, language spoken at home and religious affiliation in Australia, the most significant finding is the broadening reach of super diverse localities mapped in our research at the Statistical Area 2 level (Australian Bureau of Statistics). In this regard, our research offers a relative measure and is most useful for understanding the spatial distribution of diversity across Australia.

Relative to other nations, Australia is increasingly culturally diverse, and households of diverse backgrounds are increasingly distributed more evenly across metropolitan regions than has historically occurred. The distribution of super diversity does not clearly correlate with socio-economic disadvantage or advantage, though some areas with dwindling cultural diversity between 2011 and 2021 are often areas of decreasing housing affordability. Another broad

trend is the increasing diversity in many localities coincides with the diversification of dwelling types across metropolitan settings, particularly in areas where the provision of semi-detached dwellings and apartments have increased. Overall, this presentation will explain some of the results so far and invite a discussion about the implications for urban research and practice of the rapidly growing trend towards super diverse localities across Australia's metropolitan regions.

Naming as reclaiming the link between the city and university: Examples of institutional rebranding from Auckland and Wellington

Robin Kearns, Nicolas Lewis and Larissa Naismith

School of Environment, University of Auckland

The neoliberal turn in higher education has seen various manifestations in the tertiary section in Aotearoa, one of which has been closer attention to the place of the university, both literal and metaphorical. As part of a 'brand refresh' taking effect in 2020, Victoria University embarked on a process of placing greater "emphasis on the word 'Wellington' in its name, firmly linking the city and the university" (www.vuw.ac.nz, 2019). In a different way the University of Auckland has recently asserted its commitment to 'our place' in its Vision Statement 2030 (Taumata Tetei) and its adoption of the name Waipapa Taumata Rau together with development of a campus-wide course of the same name. We explore the significance of these instances of place-alignment in marketing and strategic visioning through a survey of web-based text and media reports. Drawing into convergence ideas of re-imagining higher education, urban place-branding and critical toponomy, we trace the importance of 'selling' an image of place through the construction of narratives about higher education that speak to the contemporary connection between cities and universities and the local and the global.

Spatial justice and surface contestation: the cultural value of street posters in contemporary Melbourne

Sabina Andron, University of Melbourne

Chris Parkinson, University of Melbourne

This paper is a visual, material, and ethnographic research of street postering sites in Melbourne. It aims to understand how postering sites are created, managed, regulated, and monetised; to put into historical and global context the culture of outdoor advertising and street posters in Melbourne; and to integrate these reflections into broader considerations of surface values and urban visual culture.

The research puts forward the argument that urban surfaces are unacknowledged archives of urban cultures and spatial production in cities. Street postering sites are very common in the inner suburbs of Melbourne, yet it is unclear how their presence and content is managed, and by whom. Moreover, these posters contribute to the identity of the city, and to how Melbourne presents itself through the displays on its public surfaces. By investigating the federal, state, and local regulation of outdoor advertising, as well as the production and management of poster display sites, this paper offers a critical perspective on the legal and visual cultures of street posters in Melbourne.

Methodologically, the project draws from ethnographies of agents involved in street poster sites, including council staff, outdoor advertising companies, and workers who put up the posters. The project also involves policy analysis and a semiotic interpretation of poster sites, to integrate findings into broader considerations of urban surface discourse and production. Finally, visual and material documentation is used, through repeat photography of the display sites and material analyses of layered glue and paper, in the tradition of the 1950s and 60s 'd a college' and other work by contemporary artists engaged with public space.

Street posters have been previously analysed as radical designs spearheading cultures of protest and resistance in cities, but their spatial occupation and sites of propagation have been neglected in existing literature. This study examines street posters through the lens of spatial justice and public space production, to learn about Melbourne from its peeling exterior surfaces, and to argue for their importance in broader understandings of belonging and exclusion in cities.

The public art of healing: Facilitating trauma-informed design in the built environment

Eloise Reddy, The University of New South Wales; JOC Consulting - Urban and Cultural Planner, UNSW Bachelor of City Planning Graduate (2022, First Class Honours - recipient of UNSW University Medal for City Planning & UNSW John Shaw Memorial Prize for Best Thesis), PIA

In recent years, discourse on the link between the arts and mental wellbeing has emerged with a great sense of urgency. This narrative is largely absent from the built environment: public art has historically fulfilled a purpose outside of the emotional realm. How public art might move towards an agenda of healing is a concept lesser still reflected within urban planning. Accordingly, my transdisciplinary research investigates the impact of collective trauma on the city—and the various ways trauma-informed public spaces and participatory art might help.

The research was based within the NSW context and combines rich analyses of academic literature, Sydney-based case studies, policy contexts, and professional perspectives. It explores how the fluidity of creative expression and collective memory can be reconciled with the prescriptive technicalities of the urban planning system. Three guiding principles for trauma-informed places are proposed: community participation, site responsiveness, and transdisciplinary collaboration. An innovative series of recommendations for local government are also provided; spanning cultural studies, community engagement protocols, and novel 'frothing spaces' in built form as places for social healing.

Through the lens of the city built environment, the research subverts the perceived 'irrepresentability' of trauma in the city; attesting how community-led public art and trauma-informed places suitably offer agency, representation, and ultimately—a place to heal.

The present and future of outdoor exercise as 'relational placemaking' among LGBTQIA+ people living in Sydney

Elise Frost, Macquarie University

As an emerging area of research, relational placemaking encompasses the dynamic ways "spatial identities" (Massey, 2004, p. 8) of places are constituted through interactions between embodied practices and the materiality of place. Research to date has attended to the ways in which LGBTQIA+ people, particularly trans and gender-diverse people, feel less safe and included in public space than cisheterosexual people (Arup, 2022; XYX Lab & CrowdSpot, 2021), as well as the ways in which places where outdoor exercise takes place are under threat due to climate change. For example, Sydney is increasingly bearing the brunt of increased storms, floods, extreme heat, unequal access to outdoor spaces and tree canopy cover, and air pollution (Hanna et al., 2011; Kjellstrom & Weaver, 2009). In this paper, I argue that outdoor exercise, an embodying and emplacing practice, is a form of relational placemaking. To do this, I draw on autoethnographic research, solicited diary research, and semi-structured interviews which examine outdoor exercise practices among LGBTQIA+ people in Sydney, paying particular attention to how the places in which we participate in outdoor exercise are diversely experienced and relationally constituted by the bodies which inhabit them. Such diversity of experiences affects access to outdoor exercise and opportunities for LGBTQIA+ people to engage in relational placemaking through outdoor exercise. I contend that the framework of relational placemaking which makes room for the specific perspectives of LGBTQIA+ people can reorient planning for the future of accessible and enjoyable outdoor exercise.

Re-signifying the Indigenous city through public art: The contested politics of Cairns as the arts and cultural capital of Northern Australia

Lisa Law, James Cook University

Russell Milledge, James Cook University

This paper explores public art as a meaningful form of reparative politics in regional cities. The site of the research is Cairns, Australia, a city investing in this artform as part of defining its image as the "arts and culture capital of Northern Australia". We join other scholars exploring the role of public art in re-signifying urban landscapes as Indigenous spaces and reflect on the uncomfortable politics of doing so in Cairns, where competing Native Title claims and strong connections to artistic Indigenous communities across Far North Queensland shape a diverse landscape of Indigenous public art. While conveying this diversity we narrow our focus to three particularly salient case studies: the iconic Woven Fish by Torres Strait Islander Brian Robinson, the Girringun Aboriginal Arts Centre's Rainforest Bagu at the front of the new Cairns Performing Arts Centre, and the recently removed 50-year-old James Cook statue on the main highway through Cairns.   We explore each piece's role in reparative politics and challenging colonial-settler/European perceptions of place.

The Artopic Dream: Unleashing urban potential through public art

Damian Collins, University of Alberta

Ariel MacDonald, University of Alberta

Joshua Evans, University of Alberta

Why do cities invest in public art? How do they connect public art to broader goals of urban transformation, creative urbanism, and the promotion of cultural heritage? What are the benefits of public art, and to whom do they accrue? To address these questions, we turn first to the concept of 'artopia'. It highlights the varied and sometimes fantastical claims made about public art: that it promotes community cohesion, attracts economic activity, and raises urban quality of life. These claims combine long-standing ideas about the role of monuments and statuary in fostering collective memory with a newer politics of competitive urbanism. Specifically, cities have adopted cultural planning as a boosterist tool, tying public art to place promotion and a growth agenda. Second, we turn to our home city of Edmonton (Alberta, Canada), to explore these dynamics. Edmonton's cultural planning identifies public art as an unqualified social and economic good that helps to 'position' the city internationally. A recurring motif is that Edmonton is a young city, full of untapped potential, that public art can help to unleash. To this end, it has adopted a 'percent for art' policy, whereby 1% of public expenditure on major projects is set aside for new public artworks. Under this policy, the city's public art collection has expanded greatly, and has begun to reckon with settler colonialism. We document the challenges and opportunities associated with this investment in public art, and analyze several influential styles, including drive-by art and Indigenous art.

Migrant Academics in Shaping Australasian Urban Scholarship

Zahra Nasreen, University of Sydney

Ashraful Alam, University of Otago

The panel's aim is to bring together a diverse range of migrant academics who could speak on different dimensions of the subject (either informed by their lived experience and/or research focus). Associate Prof. Tooran Alizadeh, University of Sydney and Dr Lutfun Nahar Lata (Lecturer), University of Melbourne have put forward their interest to speak on the panel themes. We will invite three or four other academics to join as panellist to represent the true diversity within migrant academic community.

The panellists will be asked to discuss and unpack following themes based on their lived experiences and research undertaken, and address questions from the audience.

- The role and impact of migrant academics in shaping Australasia scholarship
- The importance of migrant academics in knowledge production, teaching and guiding
- policy work
- The privilege of migration and working in academia in Australasia
- The lack of security and precarity for migrants in academia and urban service provision
- (housing, transport, education, support services) and their coping and resilience
- strategies

DIY urbanism culture and alter-temporalities in post-earthquake Christchurch

Rachael Boswell, University of Auckland

Robin Kearns, University of Auckland

Francis Collins, University of Auckland

Out of the rubble of the Canterbury earthquake sequence of 2010-12 rose a host of playful, creative, and experimental do-it-yourself (DIY) interventions designed to bring back life and energy into the city centre. DIY urbanism culture reflects a willingness for people to take it into their own hands to make (sometimes unauthorised) changes to urban spaces. Urban experimentation via DIY urbanism offers a low-risk way to trial new ideas and reveals different and potentially more inclusive ways we can inhabit our cities. The alter-temporality of the artists' process is a temporality where the future is treated as open-ended and where time is experienced through the emergence of projects. The playful spirit of this style of grassroots transformation of urban space gently contests the orthodox planning temporality and opens up the imagination to different ways we can inhabit our cities.

Growing pains: learning from the ruins that emerge from redevelopment

Laura Crommelin, UNSW Sydney

Charlie Gillon, UNSW Sydney

Simon Pinnegar, UNSW Sydney

Kristian Ruming, Macquarie University

Hazel Easthope, UNSW Sydney

Sha Liu , Macquarie University

This paper will examine the cultural significance of 'temporary ruins' of housing awaiting demolition in neighbourhoods undergoing major redevelopment in Sydney, Australia and Vancouver, Canada. Drawing on insights gathered during a three-year research study examining the role of collective sales in redevelopment processes, the paper will contemplate the meaning of ruins which emerge as a by-product of growth and densification, rather than through decline or disaster.

The cultural significance of ruins has been an area of revived academic interest in recent decades (DeSilvey and Edensor 2013). For the most part, however, this literature frames ruins as physical manifestations of social, political and economic loss. While a subset of the literature examines how growth can also create 'new ruins', such as China's new town 'ghost cities' (Ren 2014) and Ireland's unfinished speculative housing developments (Kitchin et al 2014), this literature still frames ruins as evidence of failure -namely the failure of growth-dependent housing models, which drive housing development to outstrip demand.

The 'temporary ruins' of housing awaiting redevelopment do not align comfortably with these existing framings, however. Rather than symbolising failure, these temporary ruins might well be viewed as signifying growth and success - as evidence of population growth rather than shrinkage; of compact-city planning processes successfully densifying accessible neighbourhoods; and of well-functioning housing markets where buyers and sellers both achieve significant financial gains. And yet, the experience of walking and photographing these emptying neighbourhoods nonetheless evokes feelings of ambivalence, tinged with melancholy. As Edensor (2005) argues, ruins make visible the cultural 'ghosts' that haunt a society, and in this regard these temporary ruins are no different to those produced through decline and disaster. The transformation of highly desirable single-family homes' a deeply embedded symbol of social and economic security 'into sites of disorder and destruction evokes a strong sense of the uncanny. Until demolished, these ruins remind us that the dream of owning a freestanding

home retains great cultural currency, even as it becomes financially unobtainable for most. As such, these ruined neighbourhoods trigger a sense of nostalgia for an urban lifestyle that is fast disappearing in our fast-growing cities.

Bringing together insights from stakeholder and resident interviews, site visits and photography, this paper will examine how these temporary ruins reflect our cultural ambivalence towards urban redevelopment, and contemplate what this means for how we approach planning for future growth.

Decolonisation as a priority and not an afterthought: Urban heritage futures in Aotearoa New Zealand

Carolyn Hill, University of Waikato

Contemporary scholarship on urban heritage policy and management increasingly highlights the intersect of futures studies and the heritage field. How can futures thinking be applied to urban heritage-making in ways that go beyond the concerns of our moment? How may the professional heritage sector move beyond the mantra of 'preserving' the past for the future and critically consider its role in the very real challenges of city life?

This paper explores these issues in the context of Aotearoa New Zealand, based on analysis of qualitative interviews with heritage policy-makers across its major cities. It presents the dilemmas of these professionals as they wrestle with the day-to-day realities of heritage contestation in urban environments. Four key themes emerge from their perspectives. First, policy-makers are very aware of the complicity of heritage-making in (ongoing) structures of settler colonial control; second, existing structures of heritage identification and management continue to be Eurocentric, building-centric and expert-led; and third, Indigenous leadership in approaches to urban heritage and place-making is increasing. Finally, there is an emerging emphasis on cities as cultural landscapes but conundrums on how to affect meaningful recognition of this in conservation policy and planning. Findings suggest that critique of conventional conservation practice is actively present in policy thinking in the urban Aotearoa context, but implementing difference remains a multi-dimensional challenge in making space for alternative futures.

Slash and a Social Licence to Forest: An examination of the shifting norms embedded in the statutory planning processes for forestry in Aotearoa New Zealand

Nina Muijsson, Massey University

The research examines the role of statutory planning processes as emerging points of controversy in renegotiating a social licence to forest in Aotearoa New Zealand. It responds to an ongoing disquiet among both rural, and increasingly urban communities, about the effects of forestry activities that have been heightened by recent climate events and the subsequent institutional response. This paper explores the shifting sets of formal and informal relationships and social/moral and legal boundaries embedded in statutory planning processes that have been exposed through these events. The research draws on a suite of mixed qualitative methods, centred on document analysis complemented by a comparative case study and practical insights derived from key informant surveys/interviews. The research seeks to contribute to a deeper understanding of the shifting boundaries of (social) responsibility around forestry as formally specified by law and informally subjected to social licence.

Governance processes and creative development: A reflection on creative placemaking in Wellington, New Zealand

Afsari Bajestani Sepideh[a], Polly Stupples[b], Victoria Chanse[c]

[a,b,c] Victoria University of Wellington, Wellington, New Zealand

Creative city policy has long been under scrutiny as being associated with some processes such as gentrification and social displacement and has often been accused of overly focusing on economic and neoliberal objectives. Throughout recent years, there has been an increasing interest in moving creative city policy towards local, place-based development and community revitalization which creative placemaking concept is one of the emergent movements in this regard. Building on the most relevant literature on creative city policy and creative placemaking, this paper aims to broaden knowledge on governance and power relationships in creative development as a way to better acknowledge the role of local citizens, local artists, local government, and their engagement. To do so, this paper examines two creative developments in Wellington, New Zealand with different modes of governance: Miramar as a creative cluster that accommodates film industries and Te Aro as a creative quarter with a high concentration of arts centres and cultural and creative activities. The findings drawn from the qualitative interviews conducted for both case studies show that different governance dynamics in the two case studies have resulted in different forms of community involvement and participation and as a result different consequences for creative placemaking processes. The findings can provide fresh insights for creative professionals, urban planners and designers, policymakers, and creative placemakers for the effective community, private and local government involvement.

Keywords: Creative placemaking, governance, creative development, Wellington

Precarious geographies of cultural work critiquing the post-pandemic creative city

Peta Wolifson[a], Chris Gibson[b], Pauline McGuirk[c], Chris Brennan-Horley[d], Nicole Cook[e], Andrew Warren[f]

[a,b,c,d,e,f] *University of Wollongong*

When COVID-19 spread globally, central business districts (CBDs) emptied as workplaces, retail and cultural venues locked down and work-from-home (WFH) became widespread (Maginn and Mortimer 2020). Amid ideas for governance interventions to revive CBDs since, creative city policymaking has resurfaced. Such approaches enrol ideas of place-making, creativity, the arts, culture, and events, to 'enliven' precincts and attract people back to city centres. Despite overtures to social inclusion, environmental sustainability, and other virtues, these strategies mobilise pre-existing 'vehicular ideas' (McLennan 2004) that support corporate business interests in, and claims on, urban space (Gibson et al. 2022).

We critique this present formulation of creative city policymaking by exploring the geographical dimensions of cultural and creative work beyond sites of CBD consumption-oriented outputs. Illustrating these geographical dimensions, we draw from our ARC-funded research using qualitative mapping techniques to understand the pandemic experiences of workers across diverse cultural and creative sectors in Sydney- theatre, visual arts, an artist-run initiative (ARI), sound technology, popular and classical music, architecture and drag.

Exposing complexity and diversity in pandemic disruption and precarity and varied supports around these concerns our interviews are also highlighting the multiplicity of spaces and 'sites' of cultural and creative production beyond the consumption-oriented spaces of performance, exhibition or clientele. Exploring these geographical dimensions of creative work, we underscore the interactions between employment/livelihood and pandemic-related precarities and other precarities-in housing, tenure, and access to spaces for production and audience-exposing new dimensions of precarity in creative work.

Focusing on these intersections of precarity and the multiplicity of sites in which cultural and creative activity takes place has raised further critical questions around the ideas and assumptions of culture and arts-led CBD revitalisation. By highlighting gaps and blind spots in these urban governance approaches, we suggest alternatives to avoid prior mistakes and enable more inclusive, sustainable, diversified cities and city centres. Instead of placing creativity in

service of competitive CBDs, how might CBDs be enabled to serve the cultural and creative ecologies of cities?

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Social Capital in the Smart City concept: A Systematic Literature Review

Atefe Malekkhani[a], Lee Beattie[b], Mohsen Mohammadzadeh[c]

[a,b,c] University of Auckland

The concept of a 'smart city' has gained significant attention from academic and professional researchers as an emerging tool to solve urban problems and improve residents' quality of life. However, smart cities are often perceived as technological projects, and implemented without considering the social and cultural context of the cities and the needs of their residents. The implementation of smart city projects and initiatives has the potential to (un)intentionally increase the pre-existing social and cultural segregations. In liberal democratic systems like New Zealand, smart cities should strive for inclusivity for all citizens by increasing social capital across different social, cultural, and ethnic groups. To provide further clarity on whether smart cities can enhance social capital, this study aims to identify and understand the key dimensions and indicators of social capital and the smart city concept based on relevant literature. The researchers will use the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology for this systematic literature review. The studies will be selected from two major databases, Scopus and Science Direct, using a selection process that involves identifying literature sources, screening and filtering studies based on titles, abstracts, and full-text reading.

A choreography of place; An Aotearoa story of Placemaking

Anna Michels[a], Haley Hooper[b]

[a,b] *WSP*

"Kua tawhiti kē to haerenga mai, kia kore e haere tonu. He nui rawa o mahi, kia kore e mahi tonu. - You have come too far not to go further, you have done too much not to do more"- Ta Himi Henare (Sir James Henare) Ngati Hine elder and leader.

This paper discusses the impacts and histories of Aotearoa, its place and whakapapa back to Te-Moana-a-kiwa (the Pacific/Polynesia). Through many known and unknown events, challenges, sacrifices and commitments do we all stand here today on this whenua. We discuss "the choreography of place" within this setting, and what a uniquely Aotearoa process of Placemaking could be when deeply embedded in local people and place. In Aotearoa this choreography is being shaped by culture, land, collaboration and the challenge and opportunity of shared vision.

The cultural landscape of Aotearoa is formed by the hands, minds and spirits of many, and it's providing new ways of working, based on old knowledges and tikanga (cultural practices/protocols). This is bringing about change to how we work with environments and economies and creating opportunities for social + cultural reconciliation, restoration and regeneration. Conservation and regeneration of natural taonga such as awa (rivers), maunga tupuna (mountains) and ngahere (forests) holds the key to how we can design more sensitively.

As co-governance models and tino-rangatiratanga (self-determination) become more integrated into everyday lives, ways of working and practices of business, we recognise the vision of Te Tiriti o Waitangi that aspires towards a partnership between peoples and is influencing today's environments. We see the rise in values based-design, grown from Te Ao Māori understanding of place, where the environment, society and our impacts are considered together from first principles.

Pūrākau (cultural frameworks/stories of place) gifted by Māori are re-indigenising placemaking, and being interwoven into projects and communities, sharing and resharing ideologies and long held identities of cultural significance through collaborative design and engagement. We step through some of the ideas associated with mahi tahi (working together), Māori as tribal authority, iwi (tribe), hapu (extended family) and whanaungatanga (familial relationships) and the whakapapa (genealogy) associated with decision making and design in the Māori world.

Concluding with a discussion on the "Choreography of place" in our contemporary context; the challenges and opportunities of bringing world views together and our collective responsibilities to providing manaakitanga (welcomeness) and kaitiakitanga (guardianship) for our whenua (lands), our many peoples and our making-of place.

Designing and testing a questionnaire for evaluating women's experience in public spaces

Sadia Subrina, Queensland University of Technology (QUT)

Mirko Guaralda, Queensland University of Technology (QUT)

Debra Flanders Cushing, Queensland University of Technology (QUT)

Survey design in most disciplines is based on a pre-outlined structure whereas researchers in the built environment often prepare their case-specific questionnaires. Designing and testing surveys is more complex when researchers work with a relatively hard-to-reach group: women from distinct cultural backgrounds. Women's experiences in public spaces are sensitive and personal and their behaviour in the public realm highly depends on cultural expectations and norms. A self-administered questionnaire on women's experience of public space has been developed with the aim to enhance gender equity in a patriarchal society. This article presents reflections on a specialized online questionnaire, which assesses specific properties of the contextual experience of women in public spaces. The questionnaire was developed through pilot studies and three main attributes under the contextual experience variable are investigated as (i) demographical attributes (ii) space usage attributes and (iii) experiential attributes. In addition to the inquiries on demographical attributes, detailed questions on space usage and experiential attributes were designed and evaluated for preferences and barriers from women's perspectives. The questionnaire was applied as part of a PhD research targeting both user and non-user women. A group of 100 women participated through simple random sampling. The reliability and validity of the questionnaire were tested and confirmed through two stages of pilot studies and also through the main study. This approach is especially relevant to studying woman's experiences in urban spaces who belong to a distinct cultural background. Finally, the article concludes with recommendations for effectively developing a questionnaire in urban social research with women from distinct cultural communities such as indigenous, migrant, or other marginalized women.

Encounters with strangers in public spaces: a study of social interactions and their contexts in Greater Melbourne, Australia.

Nicolas Guerra-Tao, PhD Candidate and Research Officer, Monash University

Carl Grodach, Professor in Urban Planning and Design

Elizabeth Taylor, Senior Lecturer in Urban Planning and Design

This research aims to provide a detailed understanding of the opportunities for encounters in public spaces across Greater Melbourne, Australia. The study examines how different social diversity contexts can influence the types of encounters that people have with strangers. By collecting data through surveys and observations of social interactions in public spaces, the study gathers information on participants' social, cultural, and economic backgrounds, as well as their experienced encounters with individuals they do not know personally. The primary argument of the study is that intergroup contact and social interactions have been linked to a shift in individuals' perceptions of those who are different from them. However, the research aims to explore areas that have not been extensively studied or explored in the literature. Specifically, the study aims to investigate in which social situations people experience interactions with those who are different from them, to what degree of intensity, between whom, and through which specific modes of interaction. By comparing three neighbourhoods "Berwick North, Dandenong North and Burwood" the study explores how the characteristics of encounters may vary depending on their social contexts. This comparative approach provides a more nuanced understanding of how social diversity can influence encounters' dynamics and contribute to fostering social inclusion. The findings of this research are of significant importance for urban planning strategies and policies that aim to create diverse and inclusive public spaces. The insights gained from this study can help urban planners to design public spaces that encourage positive interactions between people from different social, cultural, and economic backgrounds. Ultimately, the research aims to contribute to creating more cohesive and inclusive communities in Greater Melbourne and beyond.

What does Co-Design with Communities Really Look Like?: Disruptive Platforms of Care, Multilingual Communities, and Local Governments

Sally Lamping[a],Sonja Kuzich[b], Julian Chen[c], Toni Dobinson[d], Paul Mercieca[e], Stephanie Dryden[f]

[a,b,c,d,e,f] *Curtin University*

This paper profiles a project that began in one Western Australian Local Government Area (LGA) in 2020 and has continued and expanded over the past three years to include two additional LGAs. The project focuses on the ways in which LGAs work to understand and engage multilingual communities during crisis and recovery. It used Critical Participatory Action Research (CPAR) with communities, the LGAs, and social service organisations to engage all stakeholders in the process of co-designing a flexible framework for community-driven engagement. Over the course of three years, we tracked the implementation of this framework with communities, conducting surveys, focus groups, shadowing, and in-depth interviews to determine progress and inform next steps; the overall research project now includes 70 multilingual community leaders, 15 LGA staff members, and three multilingual service provider staff. The outcomes comprise co-design and activation of approximately 48 small and larger-scale community-led projects, events, or initiatives across the LGAs, including the opening of an intercultural community centre and a waste sorted project that focuses on how multilingual populations are leading waste-reduction efforts through storytelling and community-based education. The paper discusses the co-design framework, its links to this transformative change within the LGAs and their connections with surrounding multilingual communities; it also unpacks the ongoing issues throughout the project, contributing to new knowledge around caring platforms, cultural sustainability, and community-led co-design.

Spatial Provocateur_ prototyping an alternative reality

Farnaz Fattahi, University of New South Wales

In the face of continuous challenges, ranging from civic inequality to intensifying ecological problems; there is a group of artist-architect-activists coined as the *Spatial Provocateur*, who challenge the established assumptions by creating disruptive intervention scenarios in public space aiming to provoke urban transformations. These temporary, participatory spatial interventions present a transformative scenario that generates provocative narratives through choreographed collective interactions in response to pressing collective matters. The role of the *Spatial Provocateurs* is influential in provoking urban transformations and envisioning alternative realities of collective interaction within shared spaces.

This research aims to achieve a deeper understanding of the underlying principles and conceptual components of these projects to create a framework for prototyping alternative scenarios of collective interactions in the urban medium. As part of this investigation in-depth interviews were conducted through purposive sampling strategies with numerous *Spatial Provocateurs*. This paper focuses on two case studies conducted in Sydney, which serve as provocative interventions in public spaces. These case studies reflect the existing reality of the urban context and promote urban transformation through the embodied collective experience of the proposed alternative scenario.

The use of in-depth interviews as a data collection technique within the grounded theory methodology approach allowed to gain a deeper understanding of the *Spatial Provocateur* interventions under investigation, informed by the experiences and perspectives of the interview participants. The nuanced data collected through the interviews was analysed through inductive and deductive interview analysis to identify themes and patterns. This methodology illuminated the common threads resulting in the synthesis of a relational mapping network titled as the *Spatial Provocateur* Design Ecology. The resulting multilayered system provides a dynamic perspective on how different elements contribute to *Spatial Provocateur* interventions. The research establishes the *Spatial Provocateur* Design Ecology as a foundational mapping system for the future development of the *Spatial Provocateur* Framework.

Keywords: Spatial Provocateur; Intervention Scenario; Collective Interaction; Public Space; Alternative reality

What if…?

kaiako Jen Archer-Martin (Ngāpuhi, Pākehā), Georgina Stokes (Ngāi Tahu) & Meg Rollandi.

Mehemea ka moemoeā ahau, ko ahau anake. Mehemea ka moemoeā tātou, ka taea e tātou.

This whakatauāki by Te Puea Hērengi reminds us that if we dream as individuals, we are alone, but if we all dream together, we shall achieve. The exhibition *What if…? @SOAC 2023* offers a response to the call from SOAC 2023's Reckoning with Settler Colonial Cities panel to share 'ideas for a just future which serves diverse peoples while better caring for Mother Earth … chang[ing] trajectories … to create a home in which all can thrive, where our Indigenous voices are heard, where urban wellbeing is given priority, and all belong' (Hopewell, Bennett & Menzies).

What if…? presents a range of ideas from third year Spatial Design students from Te Kunenga ki Pūrehuroa Massey University that re-imagine our local cities — Te Awakairangi Hutt City and Pōneke Wellington City — as places that care for people, stories, ecologies and socio-cultural conditions. It builds on a project undertaken with Te Awakairangi Hutt City Council's Urban Design team in 2022, called *Te Mana o Te Awa: Urban Wellbeing in the River City of the Future*. In curating the original public exhibition of this work, we invited the local community to join us in dreaming up possible futures for the urban centre as a city in transition, turning to face the river. We considered both the project and the exhibition to be a kind of collective social dreaming, where a diverse ecology of speculative spatial designs might prompt further contributions of dreaming from the public.

This pluriverse of possibilities draws on Arturo Escobar and the Zapatistas' notion of a pluriverse as 'a world where many worlds fit' (p. 16), and Antony Dunne & Fiona Raby's 'social dreaming' (p. 169) that might generate 'the multiverse of worlds our world could be' (160), to counter the 'defuturing effects' (Fry) of the design of settler-colonial cities. Through it, we aim to contribute to 'the recrafting of communal forms of knowing, being, and doing… laying the ground for a new design thought with and within communities' (Escobar, p. 16).

In the context of Aotearoa New Zealand, we position this collective social dreaming as a mode of Te Tiriti-led design practice, looking to Te Tiriti of Waitangi as the 'korowai over everybody' (Kake & Whaanga-Schollum, par. 18) that makes this possible. This approach encourages us to consider the role that we play in serving the vision of a re-indigenised Aotearoa, in which each of us must 'always go forward as yourself, and as a representation of your ancestors' (par. 17).

In the 2023 *What if…?* exhibition, we re-present this kaupapa and subsequent work relating to Pōneke Wellington City, from a 2023 project with Wellington City Council titled *Te Mana o Te Wai: Reimagining Urban Wellbeing in this Watery City*. We extend the invitation for collective social dreaming to the SOAC community and their dreams for their own places, connected via the waters of Te Awa Kairangi Hutt River, Te Whanganui a Tara Wellington Harbour, Te Moana o Raukawa Cook Strait, Te Tai o Rēhua Tasman Sea, and Te Moana Nui a Kiwa the Pacific Ocean.