THE FESTIVAL OF URBANISM REVIEW

2022

THE UNIVERSITY OF
SYDNEY

The 2022 Festival of 'future' Urbanism is brought to you by the Henry Halloran Research Trust in partnership with the University of Sydney School of Architecture, Design and Planning and Monash Art Design & Architecture.

We acknowledge the tradition of custodianship and law of the Country on which the University of Sydney campuses stand. We pay our respects to those who have cared and continue to care for Country.

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FOREWORD

From devastating floods to an escalating housing crisis and the ongoing upheavals of the global Pandemic, the need to reshape Australia's cities and regions for a more resilient future has never seemed more urgent. So, it is with great pride that I introduce this year's Festival of *future* Urbanism Review, which brings together key insights from our 2022 events.

Over two stimulating weeks in Sydney, Melbourne, and for the first time, Albury, more than 80 eminent leaders from academia, industry, policy and advocacy communities engaged in debates ranging from disaster resilience planning and zero carbon models of development to ensuring affordable housing for all; ethical leadership; ideas to save the future metropolis and much more.

Once again, it was an honour to direct this year's Festival in partnership with Professor Carl Grodach along with his team at Monash University, and a great pleasure to return to in-person events after a two-year pandemic hiatus.

A real highlight was the Festival's first regional event at the wonderful Murray Arts Museum Albury (MAMA). Fifty years after former Prime Minister Gough Whitlam's short-lived attempts to foster decentralisation, this event, held in Albury, one of his flagship National Growth Centres, re-examined prospects for future growth in regional Australia and priorities for contemporary government intervention.

This year we've expanded the range of urban literature explored through our City Road Podcast book club series, curated by Dr Dallas Rogers, to include a special segment on children's engagement with the city as well as the role of speculative fiction in signposting alternative futures. City Road has also produced a special Festival highlights podcast series drawn from our key live events.

We were particularly delighted to continue our student film competition for a second year, which attracted many creative responses to the Festival theme of 'future' urbanism. Our oversubscribed field trip 'From Plans to Places', hosted by urban geographer Dr Kurt Iveson and leading urban designer, Diana Griffiths, gave participants a glimpse of the public spaces that central Sydney might have had, but for the twists and turns of the planning and development processes as private and public interests are renegotiated.

I would like to extend a warm thanks to our Festival audiences and the thousands of participants who have subsequently viewed our 'on demand' content online. A special thanks to our speakers and panel chairs, the Festival curatorial committee of Drs Dallas Rogers, Sophia Maalsen, and Jennifer Kent, as well as the expert technical and communications team at the School of Architecture Design and Planning.

The essays and accounts collected in this Review represent just some of the diverse perspectives shared at this year's Festival of *future* Urbanism. They all underscore the need for research informed dialogue and policy innovation to bring about better urban and regional futures.

Professor Nicole Gurran
Director, the Henry Halloran Research Trust

Image credit: Tim Ritchie

REIMAGINING REGIONAL FUTURES

Keynote address by Professor Nicole Gurran, Director, the Henry Halloran Research Trust

Image credit: Albury City Council

It's a privilege to speak at our first flagship Festival event in a regional city – and none more appropriate than Albury/Wodonga, with your strategic location between Sydney and Melbourne and on the NSW Victorian border. And, of course, because of your special place in Australia's urban and regional history and future.

At this pivotal period in national history, 50 years after the arrival of the visionary Gough Whitlam government in 1972, and only a hundred odd days after the commencement of a new Commonwealth, I'd like to share with you some reflections on tonight's theme: reimagining regional growth. I'm going to draw largely on a recent Australian Housing and Urban Research Institute study into population, migration, and the regions, by myself and a large team of colleagues including Professor Chris Leishman at the University of South Australia and Professor Ann Forsyth at Harvard University.

Drawing on this work, I'm going to advance a way of 'reimagining' regional futures that is very different to the way that regional areas have been imagined in Australia to date.

I'll cover, briefly, the troubled history of regional planning and development, which helps explain why Australia's economic geography has become so increasingly centred on the major cities. I'll then highlight some of the more recent thinking internationally and the new approaches to regional growth which seek to retain and attract people by supporting and enhancing unique place-based strengths.

But first I want to share a bit of my own story with you. I grew up in the Northern Rivers region of NSW – Bundjalung country, where my parents moved from Sydney in the early 1970s. At that time, demographers had noticed a bit of a rural 'turnaround' with people leaving the cities for new opportunities but also a better lifestyle. My father was a mechanic, mum a librarian – moving to regional Australia was a real option.

Fast forward to the late 1980s and I was leaving Lismore on the morning after my year 12 formal. Off with my red taffeta puffy sleaved dress, on to the 5am bus for Sydney, where I had a job waiting (the start of my career as a checkout chick) and the promise of university.

In those days, Lismore didn't have a university, and it didn't have many jobs for young people. Although Southern Cross University was established in Lismore and surrounding regional areas soon after; population data still shows that young people – particularly in the 18-40 year cohort – continue to leave the northern rivers – and regional Australia more widely, in search of better opportunities. 180,000 youth left rural NSW in the previous census period – which is why people

aged 20-44 years old make up only 30% of regional populations, compared with 37% in the capital cities.

The Pandemic interrupted these trends with people seeking to leave Sydney and Melbourne for regional Victoria, NSW and Queensland, while regional areas retained their base populations.

With international migration closed, Australia's combined capital city population recorded a net loss of 26,000 people last financial year. Even so this loss – concentrated mainly in Melbourne, and to a lesser degree Sydney – is really only 0.1% of our total population.

And of course, the sudden rediscovery of regional Australia by city workers liberated by their laptops and the Covid mandate to work from home – only served to reveal and exacerbate long ignored crises in regional health systems and housing markets.

So how did regional Australia become a poor cousin to the prosperous, globally connected capital cities? At Federation, only one in three Australians lived in the capital cities – today nearly half of us live in only 3 places – Sydney, Melbourne or Brisbane. Urbanisation has been a global trend over the past century, but Australia has become one of the most urbanised countries in the world. In Europe, only 35% of people live in cities of more than 1 million people – here; in Australia the figure is over 60%.

Decentralisation

Concern about the dominance of our capital cities, and unbalanced population growth, isn't new. After World War II, the idea of de-centralisation gained some traction with NSW setting up a decentralisation fund in 1958 to address perceived locational disadvantage experienced by firms seeking to locate beyond Sydney, Newcastle and Wollongong.

In the 1970s the Australian Labor Party adopted the idea of decentralisation as part of its urban policy under Gough Whitlam. Development corporations were set up – and funded – to plan and develop the growth centres. Of course, the first established was Albury Wodonga, where the joint Australia-NSW-Victorian Development Corporation was founded.

The Whitlam dismissal, and the winds of political economic change – known as neoliberalism – signalled a shift away from this type of bold visionary thinking, especially at the national level. The Albury Wodonga growth centre initiatives continued, but funding commitments were weakened, there was greater emphasis on the private market; and the scale of ambition was rapidly wound back. Urban and regional policy was no longer on the national agenda.

There were bigger global forces at play in the 1970s too. Advances in technology and transport led to massive industry restructuring from automation to offshore manufacturing. Fewer people were employed in primary production – the traditional mainstay of regional economies.

Planners had expected advances in communications technology and rapid transport to mean the end of distance-based disadvantage. But, in fact, the so called 'knowledge economy' which emerged brought with it even more spatial clustering – from Silicon Valley in California, to Sydney's CBD and the global cities where multinational firms and financial services concentrated. The idea of telecommuting remained a fantasy.

In what became a self-fulfilling trajectory, the more that jobs and population centred in the major cities, the more investment in infrastructure they received, until it seemed inevitable that economic and population growth would – could – only gravitate to the major cities.

International perspective

Internationally, things have been a little different. The benefits of economic agglomeration are certainly recognised, but governments in Europe and North America have sought to achieve these benefits at lower population thresholds and by supporting polycentric – multi-centred regional areas highly connected to each other and wider markets through high quality transport networks.

I'm thinking of places like the Randstaad area connecting Amsterdam, Rotterdam, the Hague and Utrecht in Holland and the third most productive area in Europe; or the so-called Greater Golden Horeshoe surrounding Toronto in Ontario Canada, which is now a major centre for technology based growth in North America; or the Oxford to Cambridge Arc in the UK anchored by two of the world's best universities.

The emphasis is in identifying and supporting comparative place-based advantages around location and industry specialisations, to create new regional opportunities.

The same approach assists declining and distressed areas as well. For instance, in the UK, special governance arrangements, national funding, and long term planning around locational strengths such as cultural attractions, natural amenities, or key industries have helped regenerate cities such as Manchester in England's north and Dundee in Scotland, now recognised as UNESCO's first city of design.

It would be wrong to say that the international models we examined are wholly successful. But there are clear lessons for Australia. Central governments have an important role in working with and investing in regional areas beyond central cities because of their economic and social significance and growth potential in their own right.

Encouraging agglomeration to occur in regional areas as well as the major cities – has economic productivity gains for the entire country, according to modelling by the Regional Australia Institute. In their recently released report they find that an additional increase in regional population of 0.8% above the base case scenario (taking the overall population beyond the major cities to 11 million people in 2032) would deliver an additional $13.8 billion to total national GDP, thanks to increased productivity in these regional areas.

Our own study highlighted the collective significance of populations in regional areas. Over 3 million people – around about the equivalent of South Australia, Tasmania, the ACT and the Northern Territory combined – live in our 21 largest regional cities – think regional and lifestyle destinations like Cairns, satellite cities like Geelong, or Newcastle, or regional centres like Wagga Wagga, and Albury-Wodonga.

Most of these cities are already larger than 100,000 people, which is the point at which our research suggests benefits of agglomeration begin to arise. If they continue to expand overall at around 1 and a half percent per annum, they'll take on the equivalent of half of Sydney and Melbourne's pre pandemic population growth levels – or around 500,000 people per decade.

Connectivity

Just as the international evidence shows, the planners, regional developers, and local leaders we spoke to in our study emphasised the importance of access to major city markets through ports, and airports. Together with intra-regional transport connectivity – walking, cycling, efficient bus routes for commuters across regional networks – these are all important factors for supporting and attracting growth.

But the key inhibitors – lack of sufficient health care services, good education opportunities, a lack of rental housing or increasingly affordable homes to buy – are holding regional areas back. The Regional Australia Institute highlights shocking discrepancies in regional and rural health services, with around 30 percent fewer medical practitioners per capital than the major cities, a problem made worse by distance and accessibility issues.

In talking to regional and local planners and economic development professionals, we heard optimism over future potential to attract and retain populations and firms, with the COVID driven population turnaround proving the demand for regional ways of life.

But we also heard despondency over the lack of sustained support to forward fund the physical and social infrastructure needed to support growth – which local councils in regional areas cannot afford to do alone.

Our interviewees told us of the urgent, but also exciting, opportunities to reimagine and demonstrate models of environmentally resilient growth as we transition to a zero net carbon future. Regional communities are literally at the front line of the climate crisis – facing increasing natural disasters – from fire to flood and drought. They can and – and they must – develop and demonstrate new models for resilient settlement, economic growth, and energy transition.

Investment in regional knowledge industries is critical for this. Most of Australia's strongest growing centres benefit from regional universities, which support local skill development and employment. Such as the role being played by Southern Cross University at the epicentre of Lismore's flood relief and rebuilding efforts, with its internationally recognised experts in environmental engineering – and its work in the regenerative agricultural space, or La Trobe University which is working with partners like the Bendigo sustainability group and others around the adoption of solar energy and a host of environmental innovations such as the Australian zero emissions house.

But it must be said that regional Australia is desperately underserved by access to universities and tertiary education opportunities. Given the urgent need for skilled labour in regional areas, investing in regional universities and the TAFE sector is long overdue.

The other often under recognised strength in regional areas is the cultural economy. We know that the arts is a critical sector of Australia's economy overall – producing around 14 billion in GDP per year and creating many flow on economic opportunities – modelling by the Australia Institute finds that for every person directly employed in the arts it is estimated that another 9 jobs are generated.

First Nations arts are especially important. And demand for engagement with First Nations art is only growing – one in three people in regional Australia now regularly attend First Nations art events – including visual arts and craft, music, dance, storytelling, and theatre.

The Burraja Aboriginal cultural and environmental discovery centre here in Albury is one example of the potential for the arts – and First Nations cultural enterprises more widely to support new economic and community opportunities.

Regional Australia requires – deserves – to be re-imagined and re-evisioned. While we have visionary

leader right here in regional areas, national level leadership is needed to articulate – and stand behind a real vision for Australia's future settlement as a nation – one that rebalances our population and creates opportunities across metropolitan and regional Australia.

Image credit: Albury City Council
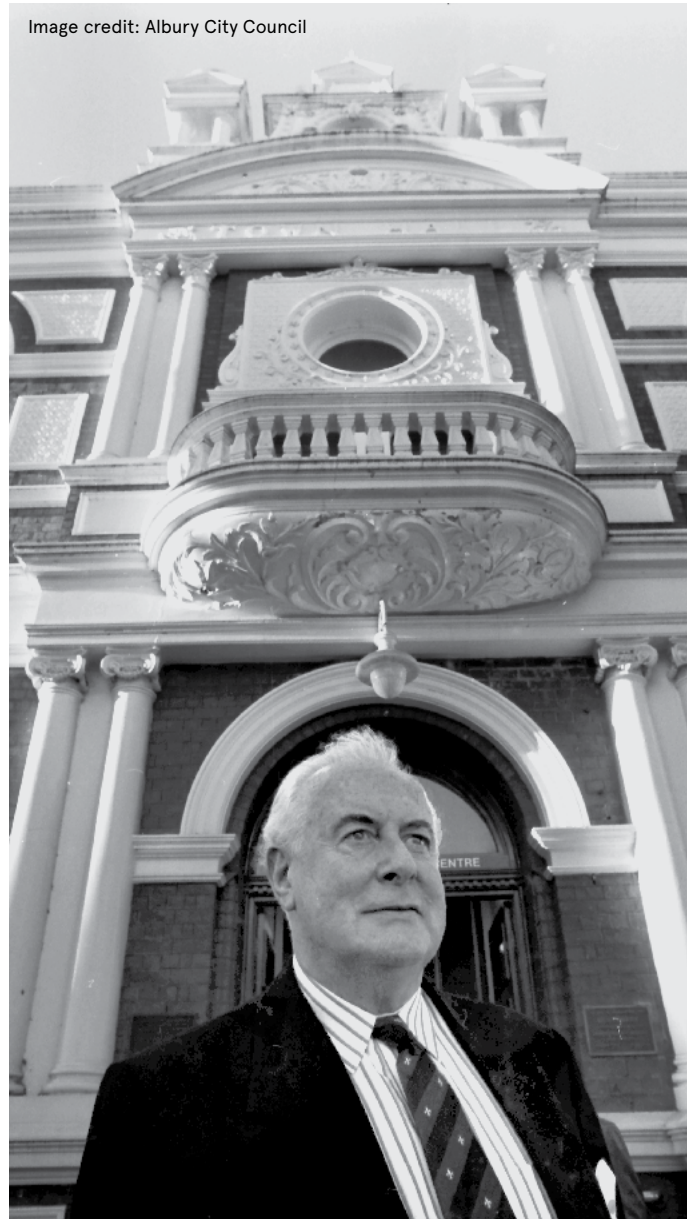
Professor Nicole Gurran *delivered her keynote address at the Murray Art Museum Albury. Joining the panel discussions were Aunty Edna Stewart, Wiradjuri Elder; urban planner,* Andrew Boyd Barber *and* Dr Julie Rudner *from La Trobe University. The session was chaired by* Michael Keys *from Regional Growth NSW Development Corporation. The panel recording, including Professor Gurran's full keynote address, can be found* here.

NET ZERO URBAN FUTURES: HYPE, HOPE OR REALITY?

Melanie Morrison, the Henry Halloran Research Trust

Net zero has become a buzz word, adapted to mean different things to different people. It is hype and hope, but most critically must become a reality if we are to offset the growing amount of carbon dioxide emissions entering the atmosphere. This panel of researchers and partners from the Net Zero Precincts Linkage project, reflected on different net zero framings and approaches to the sustainable transformation of urban landscapes that are needed if we are to achieve net zero.

At the core of this discussion was how to move toward low carbon lives in a way that is broadly acceptable to the majority. How do we help create cities that use net zero energy, are resilient to climate change, and support diverse communities?

Panel moderator Rob Raven asked, how should we talk about climate change in the context of the Festival of Urbanism?

Cities consume 78 percent of world energy and produce more than 60 percent of the world's carbon emissions. But cities constitute less than two percent of the earth's surface, telling us that our cities and our urban lifestyles are core to climate change problems and that solutions need to be found in our built environment.

The move to net zero is often thought of in technical terms. The switch to electric vehicles, for example, or the installation of solar panels. But we need to move beyond technological solutions to the relationship with more complex and multifaceted societal change. Professor Raven explained that we need to find new narratives to navigate that complexity, we need to recognize that future-oriented work and innovation comes about through new ways of collaboration and participation.

Professor Sarah Pink's work is around what she refers to as 'design anthropology' and 'futures anthropology'. When thinking of the path to net zero, she says we need to create a new interdisciplinary, multi-stakeholder alignment. Change is certainty, but how do we make that change inclusive? We need to put hope and trust at the centre of the agenda for behavioural change to be successful and to face the realities of a low carbon future.

Dr Trish McGee, the Sustainability Coordinator for the City of Monash, is working on the delivery of net zero targets and supporting the community in a low carbon future. She is involved in the practicalities of rolling out new technologies.

Margot Delafoulhouze, leads the Climateworks Centre's cities team, overseeing system-level transitions to net zero emissions in the urban environment. She sees the benefits of collaboration and citizen networks, but also recognises that policy systems have a long way to go to capture community concerns.

Dr Darren Sharp, from Monash Sustainable Development Institute, discussed the linkage project and the decision-making processes across different institutions and levels of government. Drawing on an example of a community project in Barcelona, he highlighted how well-coordinated grassroots participation are key to pushing reforms through.

The panelists all acknowledged the significant challenges posed by Australia's reliance on extractive industries and the dangers of our highly carbonised industries and lifestyles, particularly as climate change–induced disasters continue to ravage the country. This is why a 'just transition' to a low-carbon economy, across multiple intersecting domains, is all the more urgent.

Professor Rob Raven *was joined by* Dr Trish McGee *from the City of Monash,* Professor Sarah Pink *from the Emerging Technologies Research Lab at Monash University,* Dr Darren Sharp *from Monash Sustainable Development Institute, and* Margot Delafoulhouze, *Cities System Lead, Climateworks Centre. A panel recording can be found* here.

" *Focusing on futures is just so absolutely important and my work involves creating new plausible and realistic ways to work towards what I call trusted and hopeful futures … How do we gain the understandings of the real everyday situations from which those futures can emerge?* "

Professor Sarah Pink,
Monash University

INDONESIA'S NEW CAPITAL CITY: A NEW DREAM IN THE MAKING

Associate Professor Eka Permanasari, Monash University Indonesia

The design of a new capital city is an important and complex process. It provides an opportunity to be innovative and to think big. The capitol complex contains important government facilities, offices, and headquarters, as well as the primary residence of the nation's leadership. The capital city reflects the image of a country, and its location has symbolic significance. It signifies the location and ways in which power is displayed, exercised, and controlled.

Nusantara, Indonesia's new capital city design, conveys the country's new meaning and symbolism. For the first time it constitutes a new national identity, distancing itself from the colonial strictures, Javanese centrism, and the troubled state of Jakarta. New symbolism represents the new dream and vision: smart and sustainable, environmentally friendly, democratic, economically sound, and free of environmental disaster, pollution, and traffic. The Indonesian government wants to show the world how this capital can be a model of future urbanism, reflecting the challenges and opportunities this presents particularly for Southeast Asian urbanism.

The role of architecture and urban forms in conveying political messages has become critical to this process. In the postcolonial era, the definition and redefinition of Indonesian identity is significant. From the international style fostered under the first President Sukarno, to traditionalism characterised by the second President Suharto rule, and now to the smart and sustainable cities model under Jokowi, Indonesia has defined and redefined its national identity. These transformations and approaches all signal a desire to create a new and unique identity distinct from each president or the indeed the previously entrenched colonial image.

Changes in planning laws lay the foundation for Jokowi's capital city vision. His government has enacted Law 3/2022 on Ibu Kota Nusantara as the legal basis for the capital city relocation, as well as several implementing regulations such as Presidential Regulation 63/2022

on the Detailed Masterplan of Nusantara Capital City and Presidential Regulation 64/2022 on the Spatial Plan of Nusantara Capital City. It is clear this the current Indonesian government wants Nusantara to be their legacy.

While the focus is on the new Nusantara masterplan, many see the capital's relocation as a way to avoid responsibility for addressing Jakarta's current environmental and social problems, as well as potentially causing another environmental crisis in arguably one of the world's most important biodiversity and carbon locations in Kalimantan. To counter these environmental concerns and criticisms, Nusantara has been referred to as a forest city. But from planning to implementation, the challenges are significant.

Jakarta, despite the myriad of social, economic and environmental problems, has been Indonesia's thriving capital for over 50 years. Planners are quick to assure the public that the city will remain a major economic and historical force. But the subsidence of Jakarta and the sprawling city's inherent inequalities must be addressed with great urgency.

Jakarta will retain layers of meaning while the new capital will create a new layer of history. It will take time for the new capital city to establish itself as a vibrant and liveable city. While Nusantara holds the vision of the future, Jakarta must also be maintained and protected for its 11 million inhabitants and also to preserve its historical layers of symbolism.

Dr Eka Permanasari was joined by Bambang Brodjonegoro, Former Minister of National Development Planning, Indonesia (Bappenas); Sibarani Sofian, Founder and Director of URBAN+ and Adjunct Associate Professor, Monash University Indonesia; and Dr Jemma Purdey, a fellow at the Australia-Indonesia Centre, Monash University. A panel recording can be found here.

THE FUTURE OF WORK: SHOULD WE PLAN FOR THE POST-WORK CITY?

Ashraful Alam and Etienne Nel, the University of Otago

Some claim the pandemic has ushered in a "post-work" era when the concepts of work, workplace, and commuting are being remade. Digital technologies, artificial intelligence, co-creation and multi-locational work sites are creating new spaces for work and encouraging the merging of work and non-work spaces like never before. These changes are also hastening the development of unequal labour landscapes across our cities. This panel explored the impact of the post-work condition on how we work in, move through, and engage in the city.

Digital technologies and Artificial Intelligence (AI) are reshaping the future of work by enabling work beyond the conventional sites of production and formal workplaces. Work is changing in three ways. First, through "intermediation" as digital technologies and platforms extend the possibilities of outsourcing work through mediating labour markets. Second, smart devices and AI help extend work through possibilities for forms of "co-creation" which means rather than work taking place in an office or a factory building, our consumption or leisure time on Instagram or Tiktok is being transformed into productive time that generates economic value. Third, communication networks enable forms of "multi-location" work that takes place beyond the workplace. The COVID-19 pandemic has further accelerated all three aspects of work. Experts say it is the era of "post-work" when both the concepts of work and workplaces are being redefined, and the built environment professionals need to respond urgently to these disruptive moments. The conventional white-collar workplaces are interstitial as work can now occur in airports, hotel lobbies, cafes and domestic settings. This has significant social implications because of not only how work is done but also how non-work sites are put into task-space relationships, which then have flow-on effects on the ways non-work social lives are organised in relation to work.

The new post-work conditions are also disrupting stereotypical distinctions between male and female work and creating new divisions of labour. These fluid arrangements also challenge the traditional concept of when work should take place and call for investigation of arrangements alternate to the traditional 40 hour, 5 day working week. Also, the lack of access to technologies and the demand for specific skill sets reproduce unequal labour landscapes in our cities.

The Panel was interested in what these post-work conditions mean for planning and designing Australasian urban futures. There is clearly an opportunity to rethink urban amenities with creative improvisations at different scales, from zoning and land use to rethinking mobility infrastructures and redesigning residential spaces and how these interventions help us combat climate change

and pandemics and achieve just and sustainable futures. Urban planning as a future-oriented discipline was always at the forefront in the past three industrial revolutions by providing innovative spatial solutions. Indeed, there is an exciting time ahead for planners as we enter the age of Industry 4.0. The invited panellists had reflections based on both their professional and personal capacities. Some highlights are mentioned below –

– While work from home became increasingly essential during COVID and was facilitated by technological advances, parallel challenges of the informalization of work and the payment of low wages are of concern.

– Remote working may lead to 'overworking' and we are challenged to rethink what is meaningful work and where new models such as the 4 day week be considered.

– While technological advances may make work an isolating experience for some, there is also emerging evidence of the value and potential of co-working spaces which create a new sense of community without being locked in traditional office management arrangements.

– As the nature of work in a new era is re-thought, we need to move beyond narrow definitions of what constitutes work and develop understandings which embrace concepts such as post-work and care.

– From a planning perspective, the above consideration challenge notions of how cities can and should function and be planned.

The session was co-organised with the Australasian Cities Research Network (ACRN). The network's key mission is to promote, foster, champion and disseminate research relevant to Australasian cities and regions.

Dr Ashraful Alam moderated the session with Prof Etienne Nel. They were joined by Dr Jim Stanford, economist and director of the Centre for Future Work; Jason Lindsey, the founding partner of Petridish shared office space; Charlotte Lockhart, the founder of the 4 Day Week Global campaign; Professor Katharine McKinnon, the director of the Centre for Sustainable Communities at the University of Canberra; and Marcus Spiller, principal and the founding partner at the SGS Economics and Planning. The panel would not have been possible without the background work and generous support of Prof Carl Grodach of Monash Art, Design and Architecture. A panel recording can be found here.

NEW INDUSTRIAL URBANISM: DESIGNING PLACES FOR PRODUCTION

Professor Tali Hatuka, the University of Tel Aviv

The industrial revolutions dramatically impacted the development of cities and country sides. Each transformation left its spatial mark on the physical fabric, often without eliminating the footprints of the previous phase. Yet, industrial changes have not stopped but continue to have a spatial impact. The Fourth Industrial Revolution is pushing city governments, as well as planners and architects, to reconsider a more integrated city-industry dynamic in what is defined in our book as New Industrial Urbanism.

The Present Phase of City-Industry Dynamic

"New Industrial Urbanism" refers to a socio-spatial concept in which manufacturing is integrated into or adjacent to the city. It is based on the premise that technological evolution is altering fabrication's physical footprint, its distribution processes and innovation networks, their need for access to transportation, and preference for geographical locations. It is shaping the approach to city planning through the renewed understanding that an urban location carries a competitive advantage thanks to access to skilled labor, educational institutions (centers of research and experimentation), and customers. New Industrial Urbanism emphasizes the local economy, and aims to impact the social sphere by empowering small and medium-sized firms and individual entrepreneurs, as a mean to buttress localism.

New Industrial Urbanism is linked to three overarching concepts of industrial development, *Industry 4.0, industrial ecosystem, and industrial ecology.* "Industry

4.0" refers to digitisation in manufacturing processes and consumer goods. It includes technological innovations ranging from artificial intelligence and autonomous machines to biotechnology, *inter alia*. The second concept, "Industrial Ecosystem", encourages relationships and exchanges in the manufacturing sector and perceives it as consisting of one or more ecosystems. One spatial approach for achieving an ecosystem is developing geographical clusters, which may be grouped by product, and include firms that participate in its production at different points up and down the supply chain. This trend views the economy of a region and its manufacturers as a system, aims to encourage innovation and, in turn, growth through the collaboration of manufacturers, educational institutions (especially universities), and governmental agencies/organizations. The third concept, "Industrial Ecology", refers to environmental considerations, especially the goals of sustainability, energy efficiency, and waste reduction when developing industrial areas. This concept aids economy by increasing efficiency (e.g., improving energy production and use, water production and use) and establishing more sustainable, closed systems that eliminate waste. Industrial ecology also benefits the environment by reducing industrial waste by establishing a loop in which one manufacturer uses the by-products of another, and so on.

These concepts and ideas reconnect both society and space to industry. In terms of society, they depend on social capital and the societal sphere, encouraging (1) cross-sector relationships between academia and industry, government and academia, and government and industry; (2) cross-scale relationships between entrepreneurs and established firms, or small and medium firms and large firms; and (3) up- and down-stream relationships between suppliers and producers. In terms of space, these concepts emphasize the role of proximity, integration, and improving access to the workplace for employees and nearby institutions that can support their work (eg. universities and research centers), which is considered an advantage for the development of an ecological industrial system.

Industry and City Design

Clustering, reinventing, and hybridity are three contemporary approaches to developing industrial areas. Industrial clustering is a concept defined as a socio-spatial assemblage of people, buildings, and activities without any necessary center, boundary, or scale, where the production processes of some service-sector firms depend on infrastructure in a fixed, physical location. Industrial regenerating is a concept that refers to processes that boost existing industrial uses and reverse possible decline by improving the physical infrastructure,
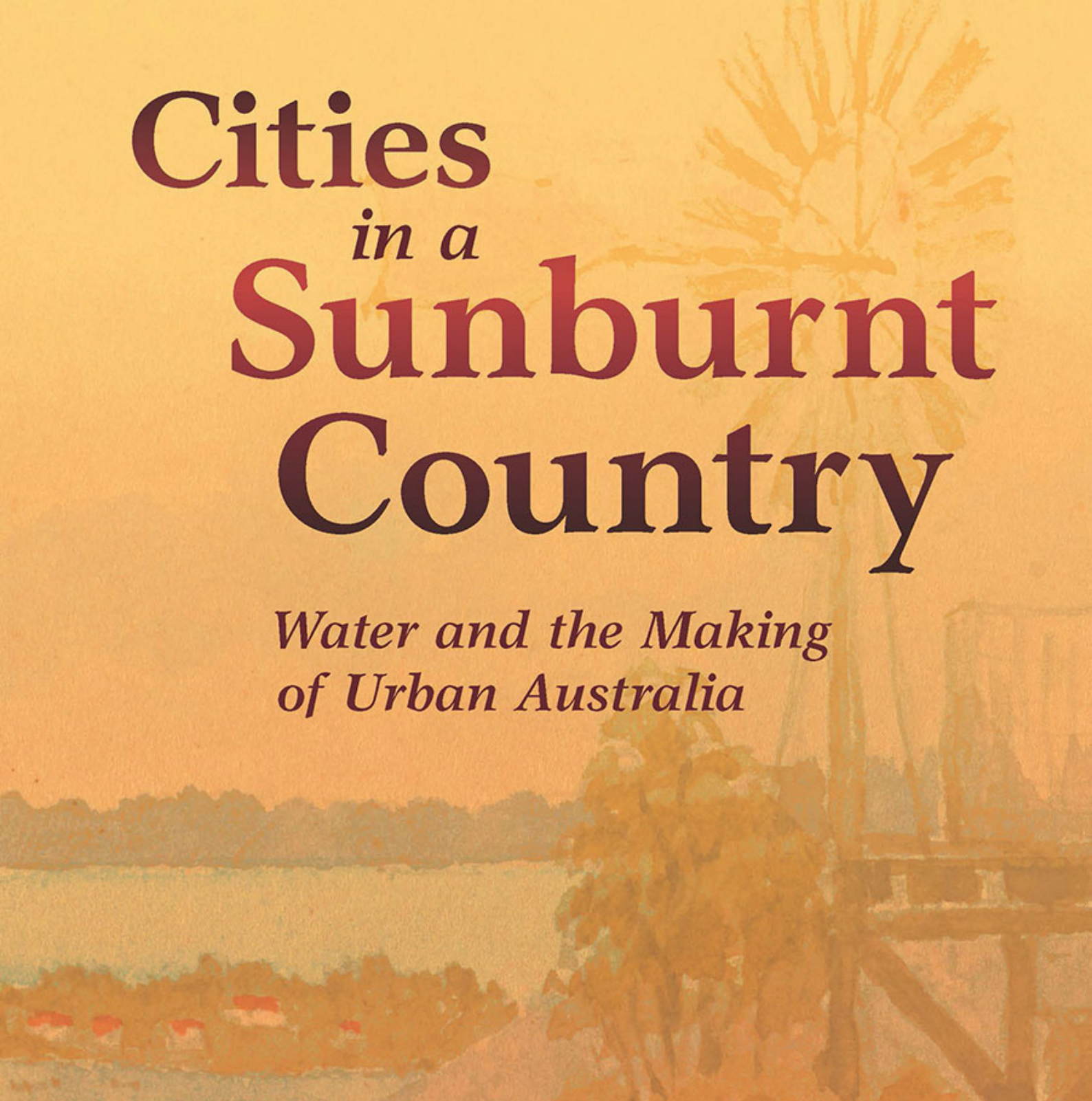
protecting and enhancing current land use, and building on the urban characteristics of the place. Hybridity is a relatively new concept that offers a spatial framework of mixed-use industrial zoning to preserve industrial districts in cities. Using the principle of densification, this framework proposes to construct hybrid buildings and districts based on the principles of walkability, alternative transportation, and neighborhood retail.

Although from the perspective of economic development these approaches differ from one another, they are all based on two related premises. The first is that industry has been and still is a central mechanism for economic growth for contemporary cities and regions; and the second that economic growth relies on different institutions collaborating and on various stakeholders forming a network. The three approaches to industrial development are based on an updated conception of the role of industry in cities, but also on the need to develop new frameworks of stakeholder participation. Thus, the foundational principles of 20th-century urban planning such as top-down policy, hierarchical decision-making, and limited stakeholder involvement cede their place to principles of integration, top-down and bottom-up initiatives, the creation of new coalitions, and encouragement of stakeholder involvement.

These new economic policy premises also manifest in the physical strategies. Generally, all the three approaches lean on two planning principles: compactness and connectivity. Compactness substitutes the distance and separation in zoning practices with new proximities among uses. This principle accompanies the need for collaboration and gives it physical expression. Connectivity is about defining new uses, paths, and mobility modes as a means of supporting the new proximities. Connectivity is often manifested in design as a means of updating a place's image as a whole.

Finally, the implementation of these approaches worldwide show that societies are beginning to consider how industry can create place, sustain jobs, and promote environmental sustainability, all within the urban fabric. They suggest that manufacturing is not just the means but also the theme by which the future urbanism can and should be explored and developed.

Tali Hatuka is a Professor of Urban Planning and the head of the Laboratory of Contemporary Urban Design, at Tel Aviv University. Professor Carl Grodach, Director of Urban Planning and Design at Monash University was the panel discussant in this session. A recording can be found here.

CITIES IN A SUNBURNT COUNTRY

Dr Lionel Frost, Monash University

In this panel discussion, we considered how our new book, *Cities in a Sunburnt Country* (co-authored with Andrea Gaynor, Jenny Gregory, and Peter Spearritt) provides insight into how Australians have met the challenges posed by the need to provide safe water in the world's driest inhabited continent and sewerage systems for rapidly growing, sprawling urban centres. In this land of drought and flooding rains, tensions persist between managing problems of too little water in particular times and places, and too much water in others. Home to most of the nation's population, the five largest cities all lie in close proximity to the coast and rely on water harvesting of rain in dams or drawn from rivers, with the exception of Perth, which is increasingly reliant on groundwater and desalination plants. This makes our cities vulnerable to extreme weather events.

In the past two centuries, developed countries have benefited from new structures and reticulation systems that provides greater control over water, contributing to an expansion in the range of available goods and services. Australia's metropolitan areas are characterised by vast networks of water supply pipes and reservoirs to provide water on tap to people's homes. However, the distribution of these benefits has been socially uneven, with disadvantaged groups vulnerable to risks of environmental damage, pollution from defective sewers, and flooding.

The challenge to produce effective water management strategies that foster more sustainable, resilient, productive, liveable, and equitable cities is a 'wicked' problem – defying simple solutions and requiring analysis that bridges disciplinary divides to inform appropriate resource use and policy action. Our team of researchers has expertise spanning the fields of environmental, economic, urban, and planning history. Our shared ideas and perspectives allow us to ask new questions of historical and current approaches to water supply and management.

City dwellers have come to expect abundant water supply from sources they perceive as pure; available as easily as turning on a tap, residents regarded supply as seemingly endless. Sewerage networks carried wastes 'out of sight, out of mind', without apparent local environmental cost. The limitations of nature and the costs of maintaining, expanding, and improving water now threaten the expectations of urban Australians for safe water. New technologies, especially water recycling may enable a more sustainable water supply, but such changes will be costly and will only happen with the support of major political parties and voters. At a time when the uneven impact of globalisation and technological change has made voters in middle and outer suburban, regional, and rural Australia more sensitive to job insecurity and cost of living pressures than those in well-off central and inner cities, we need clear information about the costs and benefits of water management options.

Australians are usually complacent about their real water usage and its environmental consequences. Historically, Australia has resorted to the construction of physical infrastructure to both manage and provide water, and strategies of imposing usage charges and rationing to regulate its use. As we move towards a more uncertain climatic future, Australians may need to rethink these strategies, including embracing centuries of Aboriginal knowledge, especially about how to conserve and use water wisely. Aboriginal peoples well understood the importance of access to adequate water, building a sustainable culture around deep understanding of, and integration with, the non-human world that enabled them to adapt to long-term environmental changes and preserve environmental knowledge acquired over many generations.

Dr Lionel Frost from the Department of Economics at Monash University was joined by Professor Martin Shanahan, University of South Australia; Dr Margaret Cook, University of the Sunshine Coast; and Dr Ruth A. Morgan from the Australian National University with Monash University's Claire Smith as moderator.

FROM PLANS TO PLACES: A GUIDED TOUR OF PUBLIC SPACES IN SYDNEY

Diana Griffiths, Founding Director of Studio GL, and
Dr Kurt Iveson, Associate Professor, the University of Sydney
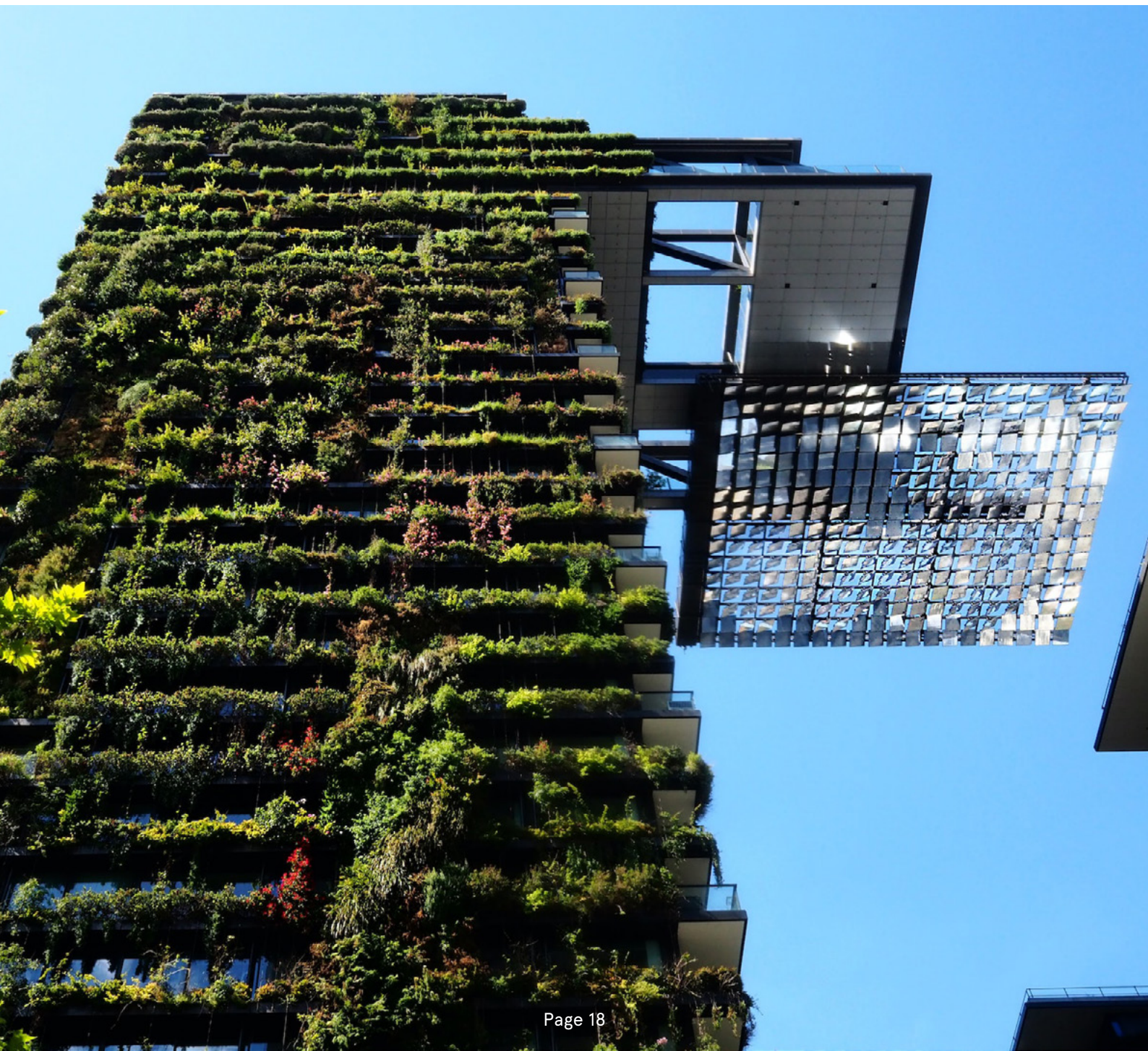
Major redevelopments frequently promise to deliver new or enhanced public spaces when negotiating planning approvals. As cities change and urban densities increase there is also the opportunity to strengthen public spaces, improving connectivity across the city and increasing the quality and quantum of public spaces.

But the journey from planning approval to final delivery and the long-term governance of these new, improved and expanded areas of public spaces often involve a myriad of twists and turns, as private and public interests continue to be renegotiated and redefined.

To highlight the challenges, successes, and intricacies of delivering new public spaces in the city, participants were taken on a guided tour of three recently completed redevelopments with newly created public spaces near Sydney's Central Station. Wandering across Central Park (formerly known as the Carlton United Brewery site), then along Kensington Street and Spice Alley before moving onto the Goods Line and Darling Square (formerly known as The Haymarket) allowed us to compare the futures promised with the places delivered.

In Central Park we looked back on the history of this extraordinary 5.8ha site before exploring the detailed, complex, and multi-layered planning approval process which allowed many skilled architects and urban designers, planning authorities and developers and visionaries to shape, refine and manipulate the buildings, public spaces and publicly accessible private spaces into the form we see today. We discussed the lost legacy of "Little Broadway" and the factors influencing the success of the pedestrian mecca of Kensington Street and Spice Alley.

Along the walk we discovered that we had unknowingly crossed a boundary between private and public spaces over 10 times – and while we didn't 'see' it, each time we did so the governance of the space changed, generating different rules with different authorities and responsibilities. The challenges of this fragmented approach were highlighted, leading to discussion about the Public London Charter and the value that identifying core principles with a shared set of rights and responsibilities for the users, owners and managers of new public spaces could provide, regardless of ownership.

The next public space was the Goods Line, an elevated open space that follows the alignment of a former freight railway line and connects an area close to Central Station with Darling Harbour. The benefits of this cost effective $15 million Stage 1 pedestrian and cycleway connection were discussed, alongside observations about neglected areas of landscaping and the lack of curation that has

occurred since its completion, needed to showcase the space, and maximises its use.

The final space considered was Darling Square with its subtle and innovative solutions to possible future flooding and the vibrant and human scaled public open space that provides a focus for retail, community, and civic life.

It was here we discovered who controlled this public space and what we could and could do when enjoying the space – while the space is publicly owned, the long list of prohibited activities imposed by Place Management NSW Regulation 2022 has many of the types of restrictions often associated with privatised public spaces. Armed with this new knowledge we then proceeded to the International Convention and Exhibition Centre (ICC) where we observed the Sydney community enjoying the unexpectedly sunny day, whilst ignoring the fencing and restrictions on the use of Tumbalong Park, and the street dancers outside the ICC who were breaking many of the formal 'rules' but creating life, fun and entertainment for those watching.

Finishing up at the Pumphouse Bar we discussed, over an obligatory drink, what these case studies can teach us about the provision, governance, and accessibility of future public spaces across Sydney.

Associate Professor Kurt Iveson *is an urban geographer at the University of Sydney. He has a long-standing interest in the politics of public space.* Diana Griffiths *is a skilled urban designer with over 28 years of professional experience in urban planning, urban design and architecture.*

ETHICAL FUTURES? TOWARDS SYSTEMIC URBAN INTEGRITY AND THE 'JUST CITY'

Melanie Morrison, the Henry Halloran Research Trust

A 'just city' may seem like an elusive concept, with ongoing examples of corruption, conflicts of interests and politicisation in urban and regional planning processes. This broad reaching panel discussion grappled with concepts of trust in public decision making and how to improve decision making cultures and urban governance for more just, sustainable and accountable urban futures.

Chaired by Claire Connelly, journalist and visiting fellow at the University of Sydney's Policy Lab, each panellist shared their concerns about private and public sector integrity and transparency in planning processes.

Varsha Yajman, a law student and environmental activist, spoke of climate justice and the need to decolonise the climate movement. Hearing the voices of First Nations people, those on the margins with a deep lived experience, will allow for decision-making to be reflective of those impacted by climate change and strengthen environmental policy frameworks.

Yvonne Weldon, a Wiradjuri women and councillor on the City of Sydney Council, has worked for decades for a more inclusive and accountable city. Echoing Varsha's concerns about the lack of diverse voices in policy-making processes, she questioned existing notions of ethics and transparency and who they ultimately benefit. Referencing the controversial Redfern-Waterloo development, Yvonne spoke of the voices excluded in the sell-off of public land, resulting in the "weeding out" of core segments of the community. Current frameworks all too often make vulnerable communities even more vulnerable. "Who are we as a society?" she asked.

On the question of leadership, Alex O'Mara who has executive experience across a range of sectors, including environment, planning and industry, stressed the importance of a path to a "just transition". As communities face joint crises around the environment and inequality, deep listening from people with lived experience is critical. This calls for a different way of doing business. Public participation in the planning process requires ongoing collaboration and it is this collaboration and place-based discussion that leads to the best planning outcomes.

From place-based decision-making to global governance, Professor Susan Park, an expert in global climate governance, shed light on the challenges and pitfalls of global sustainability and accountability mechanisms. In terms of a "just transition" to a more sustainable future, she explained that new institutions have emerged challenging existing frameworks that have been slow to respond to the realities of climate change. With the global uptake in renewable energy and new

technologies, governance systems have fallen behind. How do we govern this transition in an accountable and sustainable way?

The International Energy Agency (IAE) was set up in the 1970s by advanced industrial countries to give them access to oil and gas. More recently the IEA boasts they are steering the world toward secure and sustainable energy transitions. But, Professor Park observed that has vastly underestimated the scale and speed to renewable energy adoption. Her research has shown slow enforcement of global agreements to ensure sustainable and just transitions, has led to decisions that are poorly coordinated and non-binding. With environmental issues not isolated to any one country, how do nations work together and hold each other accountable?

The need for greater collaboration to achieve ethical and sustainable transitions was a key theme that ran throughout the panel discussion. Successful collaboration entails listening, particularly to those with lived experience and place-based knowledge; to meaningfully empower voices in the decision-making process. Yvonne Weldon summed up the conversation by saying that we need to acknowledge the biases and the short-comings in "elite" decision-making processes. To ensure ethical and sustainable transitions in our cities and regions, we need to "make it about all of us, rather than some of us."

The Ethical Futures panel was chaired by Claire Connelly, Sydney Policy Lab fellow and included Councillor Yvonne Weldon from the City of Sydney and Deputy Chair of the Metropolitan Local Aboriginal Land Council; Alex O'Mara, Sustainable Solutions Advisory; Professor Susan Park, the University of Sydney; and law student and climate activist Varsha Yajman, Climate activist. A panel recording can be found here.

"*We are marginalizing people and making them more vulnerable …. How do we truly make the conversation about all of us rather than some of us?*"

Councillor Yvonne Weldon,
City of Sydney

SAVING SYDNEY: CAN IDEAS SAVE A CITY? AND IF SO, SAVE IT FROM WHAT, EXACTLY?

Dr Elizabeth Farrelly, Columnist, essayist and author

Our Saving Sydney conversation that kicked off the 2022 Festival of Urbanism was conceived initially as a riposte to my 2021 book, Killing Sydney. Of course, Sydney has never been especially ideas-driven. Some might even say that random quality is part of Sydney's charm. But (argued the book) ten years of relentless development, government profiteering and dull instrumentalism have undermined Sydney's character and besmirched its soul. So, for this event we took it upon ourselves to wonder what ideas might reverse, or at least begin to heal, the destruction?

Sydney has always been a city of venality. From the earliest days, when John Macarthur snaffled a private lease over land intended by Captain Phillip to be part of a grand public street, venality and property speculation have prevailed. Indeed, much of Sydney's most enchanting urban fabric – the tumbling terrace houses of Paddington, Surry Hills and Glebe – were spec-built. But they scale was small, the development piecemeal but set within an overall expectation of conformity with the mental model of old London.

Photo credit: Tim Ritchie

Now, as the exploitative mindset has become corporatized, the scale and destructive power of development has exploded, delivering vast windfall profits that in turn generate special access to government, the downgrading and de-acquisition of all things public and dramatically increased social inequality. Most of the panel's ideas, in response, focused on the small, the ordinary, the local and the grass-roots.

"The couch is the enemy," declared Michael Rodrigues, NSW's first 24-hour Economy Commissioner and founding editor of Time Out Australia. His mission for Sydney is to acknowledge and amplify the cultural energy that is found everywhere, throughout the metropolis, not just in the privileged centre or the established institutions. He coined the metaphor of a distributed grid of cultural production, as opposed to a centralised model. "Cultural energy is everywhere," he said.

"We're not a top-down exercise," echoed Kerrie Glasscock, Director and CEO of Sydney's Fringe Festival. "We're a ground up organisation. We highlight and identify fantastic pockets of cultural activity... encouraging a diversity of otherwise unheard local voices." Pressed on the physical ramifications of this pocketed nature of authentic local culture Glasscock noted that, although Sydney is desperately short of good venues, they needn't be swish. Very often, in fact, "a concrete shell with power and water connected" is just the thing.

Professor Chris Gibson further pursued the idea of what he describes as a city's "pockets of joy." A musician, as well as an urban geographer, Gibson approaches the question of city texture from both viewpoints via a project that involves the mapping of culturally reoccupied industrial spaces. It reveals, he says, a "lack of sensitivity" on the part of governments and decision-makers as to what is happening on the ground. The governmental habit of accepting huge developers' "Unsolicited Bids" (such as Sydney's Crown Casino) was especially responsible, he noted, for its capacity to destroy this fine-grain cultural substrate.

Professor Michelle Leishman, Macquarie University Director of Smart green Cities, focuses strongly on urban greening and the importance of re-evaluating urban green space not as a liability, but as an asset that contributes to carbon abatement, biodiversity, urban cooling and amenity far more than is recognised.

Of equal concern for Professor Leishman is waste and the urgent need for a circular economy. Here she is very much in tune with Australian farmer-inventor Dr Lyndal Hugo. Unable to secure funding for her ideas in Australia,

Hugo moved to Ho Chi Minh City. There, her net-zero, pesticide-free, ultra-affordable food-growing system now supplies supermarkets and top-tier restaurants alike and has investment bodies beating a path to her door. Hugo's next project, to be conducted jointly with the University of Western Sydney and Oz Harvest, will explore the potential for such localised food production to be replicated here and to create green urban hubs that will reduce food miles. "Energy," she says, "is the enemy. Food supply chains have become energy supply chains."

"Inclusiveness is our biggest challenge," said architect, academic and former City of Sydney Councillor Philip Thalis. "Sydney has become a ghetto for the rich." Thalis argued that "We're living in the era of the great privatisation." Citing developments from Barangaroo to Blackwattle Bay, the fish markets, Waterloo and Central Station, Thalis argued that "we need a much richer conception of the city." Everything is skewed towards private wealth and power; "we have lost public agency and we need to get it back."

It is clear that much of this is about governance – how we control what is built and where, who has access (to decision makers, as well as spaces) and how we furnish and occupy our public spaces. Many of us yearn to shift these governmental attitudes to create a city that is greener, lovelier, more inclusive, more creative and more walkable. The big question, going forward, is can we?

PLATFORM URBANISM: IS IT SMART?

Dr Justine Humphry, the University of Sydney

Platform urbanism? From 'smart' to autonomous city futures was a panel of researchers, policy-makers and strategists that came together on September 20, 2022 at a hybrid event held at the Chau Chak Wing Museum at the University of Sydney to explore and engage critically with how cities and regions across the world have been transformed by digital platforms that are governing key aspects of urban life such as housing, shopping, transport and the way we work.

As a long-time researcher of the mediation of homelessness by mobile communication and digital access in smart cities, I tackled the question: What does platform urbanism do to public space and to people who inhabit public space in different ways?

Public space is a contested idea, eliciting various meanings and experiences of the concept. Massey (2005) famously proposed that space has a 'power-geometry', resulting in the political and social production subjecting groups to different treatment as a result. The gendered aspects of public space have long been subject to discussion and critique by feminist urban scholars and planners.

People who are unstably housed have a different relationship to public space because of the need to inhabit shared zones for longer periods of time, to rest, to eat, to seek out services and to charge their mobile phones. Homelessness – especially street homelessness – has historically been subject to high levels of policing (Wacquant, 2009), and urban objects are co-opted into enacting policies to remove, displace and monitor rough sleepers (Davis 1990). Digital technologies are also a key means through which different groups are policed in public space.

As public space becomes increasingly mediated this has implications for the mobilities of these groups and the opportunities and challenges of these spaces. In research I've conducted on digital access in smart urban environments, people experiencing homelessness as well as young people, food delivery workers and groups displaced by war and conflict have greater access barriers, that in turn, produce new imperatives of movement in search of phones, internet and power. For these groups, the connectivity affordances of cities are essential for staying connected.

But digital mediation also changes space. One way that cities are being spatially transformed is by embedding sensors in street objects like kiosks, benches and light poles that collect data. This data is then subject to automated and algorithmic processing to change some aspect or feature of that space. This is the smart cities model, which refers to the generation of new knowledge by collecting and analysing vast amounts of real-time data that can improve how cities and services are planned.

So, for example, digital kiosks and smart benches are being installed on footpaths and pedestrian thoroughfares in cities equipped with digital screens, Wi-Fi, charging facilities and information services. The Wi-Fi and phone chargers are a 'lifeline' for groups who are precariously connected, but with their inbuilt sensors and data collection capabilities, these street technologies perform as a larger network that use data in particular ways. For example, counts of Wi-Fi enabled mobile devices can be used to support 'location aware' advertising on the digital screens. Kitchin and Dodge (2011) call this augmentation of space by data: 'code/space'. Mackenzie referred to it as 'wirelessness'. Both terms refer to the hybrid spatial formations that emerge from the mixing of data flows with physical space.

One of the outcomes of the *code/space* generated by these objects, is that it creates new possibilities for making groups visible in that space and being acted on in certain ways.

An example of this occurrence was the installation of a call-blocking algorithm in InLink BT kiosks in South London in 2018 in response to reports of their use for drug dealing. The algorithm, which used pattern recognition to automatically block calls to identified numbers, enabled the digital kiosks to be used to predictively police communities.

This algorithmic shaping of the kiosk's functionality was carried out without community involvement, even though there may have been other ways to address the root causes of these issues, which were a function of poverty.

The long-term implications of the call-blocking algorithm remain unknown, even though it continues to filter the space around it in specific ways. As Taylor (2016) has cautioned, this "carries with it the dual risk of rendering certain groups invisible and of misinterpreting what is visible" (p. 319).

Short letting platforms like AirBnB reshape space in a different way to sensors and smart street technologies. Platforms such as these disrupt the spatiality of housing access and internalise access to housing only to those who can be exploited for short term profit. The result is reduced options for longer term rentals, increased prices for remaining rentals and the shifting of longer-term rentals further from the city. Other key services transformed by digital platforms include transport and shopping. Panelist Dr Van Doorn explained that during the COVID-19 pandemic there was a rise in rapid food delivery services and 'dark stores' to supply online shopping.

As Dr Barns summed up, these platform companies belong to a model of digital urban transformation that may well replace that of smart cities. But at their core this model is also about re-shaping and augmenting urban space by mixing data with physical space, and they are premised on a population of mobile-connected users with digital access, a steady supply of mobile data and a home to return to for recharging devices.

Read more in my 2022 published book: *Homelessness and Mobile Communication: Precariously Connected*, which analyses homelessness as a mediated condition and explores the underpinning processes that shape the digital patterns, issues and difficulties of a group disproportionately affected by service reform and developments in digital citizenship, smart cities and algorithmic governance.

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Dr Justine Humphry, *Senior Lecturer in Digital Cultures, the University of Sydney, was joined by* Dr Niels van Doorn *from the University of Amsterdam; Dr Sarah Barns, an urban strategist and researcher and Rory Brown from Smart Places at Transport for NSW. The panel was chaired by* Dr Sophia Maalsen *, senior lecturer in the School of Architecture, Design and Planning at the University of Sydney. A panel recording can be found* here.

FUTURE INFRASTRUCTURE: INNOVATION, GOVERNANCE AND SUSTAINABLE TRANSITIONS

By Dr Rebecca Clements and Associate Professor Tooran Alizadeh, the University of Sydney

The "Future Infrastructure" expert panel discussion was the second Festival of Urbanism session hosted by the Henry Halloran Research Trust's Infrastructure Governance Incubator project. As such, it sought to extend the critical questions and insights into infrastructure governance generated in 2021, this time with a conceptual focus on what it means to think about infrastructure in the context of equitable futures (and inequitable presents), inspired by William Gibson's famous and provocative quote, "The future is already here – it's just not very evenly distributed".

Despite existing technological capabilities, deeply entrenched barriers to sustainable and equitable transitions often fall to questions of governance, such as: who has a say in decision making, how is power distributed, whose knowledges inform our priorities, and

do we have the capacity to deliver on our aims? With this in mind, the key question put to the panellists was: what governance models are needed to transform systems of infrastructure provision and distribution, ensuring equitable access to sustainable transitions?

Associate Professor Tooran Alizadeh from the University of Sydney outlined some of the key findings to come from the Infrastructure Governance Incubator's case study research of governance in the Western Parklands City - a major restructuring project for the Sydney metropolis - drawing from 55 stakeholder interviews. The work identified a wide range of lessons and questions, including the need for more resourcing for community infrastructure, the role of local community organisations and independent roles in fostering accountability, and collaborative approaches to improving governance integration. A key focus was reflecting on what it means to plan infrastructure on unceded Aboriginal land; a deeply important undertaking in settler-colonial cities. Her talk, informed by the empirical research conducted at the Incubator, highlighted diverse challenges from under-resourcing and barriers to land ownership, management and planning on Country, the importance of building our capacities to listen and foster cross-cultural relationships, and the need to meaningfully empower Traditional Custodian voices in decision-making.

James O'Keefe, Director of the Roads to Home Program at the NSW Department of Planning and Environment, spoke about the success of the program in enabling infrastructure governance led by Indigenous communities. The program involves collaboration between state and local governments and Local Aboriginal Land Councils to fund and provide support for projects. It focuses on empowering Aboriginal communities through the entire process of infrastructure planning and delivery, from initial scoping stages to operations and long-term maintenance, providing opportunities for home ownership, capacity building, and ongoing training and employment. The success of the program represents an opportunity to reflect on lessons for other forms of infrastructure governance.

Professor Tim Bunnell from the Asia Research Institute at the National University of Singapore considered the wider lessons from techno-infrastructural development that took place as part of *Malaysia's Vision 2020* from the 1990s. He asks how people have related to large scale "future" infrastructural projects in the past, and what these projects tell us about our current futures. In this case, nationalist investment in a "fully developed future" were originally bought into by many regular Malaysian citizens as infrastructural "necessities" for economic development. But this is contrasted with the outcomes of evictions and displacement of directly impacted groups such as Aboriginal communities, followed by activism and political opposition from the Malaysian community decades later. He cautions against claims of infrastructural necessity, and also highlights the ways people can use political promises to hold proponents to account or forge their own future imaginaries.

Haruka Miki-Imoto, Operations Officer at the World Bank's Tokyo Development Learning Centre, explored the case of urban governance in Fukuoka, Japan to support decarbonisation goals. At the core of Fukuoka's approach are compact city and transit-oriented design principles. She explained how despite Japan's shrinking city phenomenon, Fukuoka is experiencing the largest population growth in part through focusing on revitalising the liveability of the city, creating public spaces, and closing sustainable transport gaps. Fukuoka's transformation is founded on partnership approaches to co-creation of policy design and implementation, catalysed by local governments working with citizens, the private sector, universities, etc. She emphasises that transformation is a long-term process of commitments and actions.

Dr Aidan While from the University of Sheffield focused on thinking through how future infrastructure is being shaped by advances in robotics and automation and asked what that might mean for sustainability transitions. He asks what it means when we consider governance of unfamiliar infrastructures, and when the 'innovation' is in the infrastructure itself rather than being in the governance. He expressed his concerns about the societal implications of this, and the way we may increasingly frame sustainability transitions towards adaptation, with the tendency of affluent groups to seek to protect their existing lifestyles. Urban robotics and automation are being used to rework social and political relations (e.g., of security, mobility, healthcare), begging questions of differential access, inequities, and other social implications. He emphasises the need to open up public debate on these potential futures.

Associate Professor Tooran Alizadeh was joined by Haruka Miki-Imoto, Operations Officer for the World Bank in Japan; Professor Tim Bunnell from the National University of Singapore; James O'Keefe, the director of the Roads to Home program in the NSW Department of Planning and Environment; and the University of Sheffield's Dr Aidan While is with the Department of Urban Studies and Planning at the University of Sheffield. A panel recording can be found here.

RENOVATE OR DETONATE: HOW DID WE GET HERE?

Dr Ben Spies-Butcher, Macquarie University

Australia's housing system is slowly breaking. Of course, for many it is broken already, for some it always was. But things are getting worse. The features of our system that meant it could work for many are slowly eroding, and there's little sign of that changing.

First, some context. During the middle of the last century Australia led the world in home ownership. Most Australians, even relatively low paid workers, could expect to own a home by the time they retired.

Governments helped people buy homes in lots of ways. Full employment meant good quality jobs you could borrow against. Financial regulation gave preferential access to first home buyers. Public housing was even designed to help people save a deposit.

The system didn't include everyone – women were denied jobs and credit, First Nations people had their land stolen and were then excluded to provide space for White Australia. It was a selective success – but it meant security for a growing majority.

Home ownership made Australians relatively rich, and asset ownership relatively egalitarian (by global standards). But it also set in train forces that are now slowly blowing that system apart.

First, because so many people expected to own, there was little political concern for private renters. The result? We have some of the worst tenant protections in the OECD. There is a 'tenure cliff' and many young people find themselves at the bottom.

As buying gets harder, millions not only pay too much rent, they face real insecurity. Insecurity reinforces the power imbalance between tenants and landlords, making it hard to negotiate for anything – even to remove mould or fix a door. The tenure cliff drives thousands of tenants to borrow too much and lower their living standards just to get basic security.

Second, economic reform meant the deregulation of finance. This ostensibly helps first home buyers by making it easier and cheaper to borrow. The problem is – it makes it easier and cheaper for *everyone* to borrow, and your capacity to borrow is directly tied to your existing assets and income. Instead of helping first home buyers, it has seen a flood of money for investors. Financial deregulation has turbo-charged house prices turning places we live into casinos aimed at capturing capital gains from rising prices.

These processes, though, are slow. It takes decades to buy a home. Older Australians largely still live in twentieth century housing market. That system allows people to live on the very low public pension, because they don't have to pay rent. Look at the value of homes (owner occupied housing) by income and you see many low-income Australians are actually doing fairly well, because home ownership remains a reality for most poorer older Australians. The slow-motion breakdown of our housing system means inequalities are rising across generations – each generation's wealth is less equal than the last.

The politics are diabolical. Most people still own (or are buying) – they benefit from rising house prices. That includes the wealthiest people in the country, and most of the highest income earners (both young and old) – powerful constituencies. But it also includes older, more vulnerable people.

The solution, we're told, is to create more supply. But in a private market, developers will only build if they think they can make a profit. If prices are falling, building slows. Construction also provides more blue-collar jobs than any other industry. Supply is good for jobs and for business, but if it is only *private* supply, it isn't designed to improve affordability. Instead, it feeds unstable booms and busts.

Rather than addressing these growing inequalities and insecurities, politics has moved in the opposite direction. Governments have injected ever more money into the system, through tax concessions and first home-owner grants – giving more money to everyone at the auction. Taking those benefits away, even highly unequal and very expensive tax concessions that only help investors, has proven a political minefield.

Letting house prices fall risks bankrupting recent buyers and raising unemployment. Governments don't want to see either, so they often intervene to stabilise falling markets, effectively underwriting the speculators and pushing prices even higher next time.

The tenure gap and capital gains are feeding a destructive politics that reinforces the slow collapse of an egalitarian housing system, where poorer folks, and those with the greatest unpaid care responsibilities, have been hurt most and first.

What can we do? Three suggestions.

We need to close the tenure gap by giving private renters more rights.

We need to make it harder for private investors to get cheap capital gains, and instead capture those gains for public purposes – as tax revenue, through co-ownership and shared equity, and as new social housing.

And we need to build political alliances across generations by focusing our attention on our shared need for a secure home. Profits (from capital gains and new development capacity) must come with social responsibilities.

There are signs things are turning around. But it takes decades to buy a home, so be prepared for a long journey.

Dr Ben Spies-Butcher is senior lecturer in Economy and Society in the Department of Sociology at Macquarie University. He was joined by Jenny Leong, the Greens member for the seat of Newtown in the NSW Legislative Assembly; Rebecca Pinkstone CEO of Bridge Housing; Leo Patterson Ross the CEO of Tenants' Union of NSW; housing finance expert Carrie Hamilton and John Engeler CEO of Shelter NSW. The panel was chaired by Nicole Gurran, Professor of Urban and Regional Planning at the University of Sydney, where she directs the University's Henry Halloran Research Trust. A recording of the panel can be found here.

FOOD FUTURES IN URBAN PLACES: SOLIDARITY, CIRCULARITY AND TRANSITION

Dr Stephen Healy, Western Sydney University

This session explored innovative social practices that secure food futures in two different contexts - Sydney, Australia and Bologna, Italy. Stephen Healy and Abby Mellick Lopes, with industry partner Michelle Ziebotts, thought through circular economy approaches to securing food futures, while the early career scholar Gabriele Morelli conveyed his findings on how social and economic innovations help to secure local food futures in Bologna. All four presenters reflected on the role of trust, goodwill, and cooperation as central to securing food futures.

In both places, the continuity of place-based food systems face a variety of existential threats. A recent study research from Awais Piracha and Nicky Morrison underscores how ongoing urban expansion in Sydney threatens existing peri-urban agriculture, estimating that it may have lost 50 to 60 percent of its food bowl in the last decade. Here the transition from rural to urban land-use types intersects with the varied impacts of climate change, adding to urban heat during the *El Nino* cycle and exacerbating the dynamics of run off and flooding during the *La Nina* years. Bologna's food systems

are also similarly impacted by the consequences of both urban-development and climate change. Both locales are also shaped by new global geopolitical realities. The pandemic and current conflict in the Ukraine have resulted in rising fertilizer and energy costs, both of which threaten the economic viability of food producers and the food security of citizens.

In the context of economic, ecological and existential challenge, the panellists explored innovative experimentation across three locations. "Trust" figured as a central concern. Who can be entrusted to act on behalf of the community? How can goodwill enable a process of experimentation and failure required to innovate? How can trust be formalised within existing frameworks to allow for innovation?

Cowra CLEAN
The potentials of the circular economy and circular food system were explored across the first three presentations connected to an Australian Research Council Project, *Innovative Waste Economies: Redrawing the Circular Economy*. Stephen presented on a sustained effort by the Cowra Low Emissions Action Network (CLEAN) to develop a food and energy secure futures. CLEAN describes itself as an incorporated not-for-profit, operating principally for the benefit of the people of Cowra, a regional community adjacent to Sydney. The vision is to generate energy and other goods locally to ensure the continuity of both agriculture and value-added food manufacturing at the heart of the community. The system centred on the development of large scale biodigesters taking waste from agricultural, industrial and municipal sources and using the methane produced from anaerobic digestion to power electricity production. Power fed into a micro-grid would be sold at reasonable return to food processing facilities while also providing a circular service for organic waste.

After a decade of effort, the first node in this system is now operational. The more daunting challenge is how to create a supportive environment for the more ambitious second stage linking a larger scale biodigester to downstream heat and power users. Here the critical question who can be entrusted to act in the public interest, and whether it's possible for non-state actors (CLEAN) to act on community's behalf.

The Hartley Vale Good Garlic Company
Abby and Michelle's presentations picked up on this theme of trust in their explorations of an emerging circular supply chain working to ensure the future of peri-urban agriculture around Sydney. Michelle started the Hartley Vale Good Garlic Company in 2017. Michelle has enriched the soils on the farm by arranging the import of dehydrated food waste from the University

of Technology Sydney as well as local area cafes. This soil conditioner allows her to grow organic garlic which is then sold to area restaurants and shops in Sydney. Michelle sees her efforts as an ongoing experiment with dehydrated food waste and mostly coffee grounds. The latter is crucial: it repels vermin, while inviting earthworms and other soil organisms to transform into soils that improve water retention. For Abby, UTS's extension of goodwill to experiment is equally important—creating the space and relationships for trial and error.

Area farmers are looking to her experiments for answers and her immediate community is exploring the potential of commercial hemp farming as both carbon-sink and alternate building material. The viability of this circular system depends upon developing a supportive infrastructure, most notably a set of actors that can dehydrate, store and transport organic food waste, alongside communities of farmers capable of receiving some of Sydney's organic waste stream (which comprises 45% of all waste coming from Sydney).

Food and Solidarity in Bologna Italy
Gabrielle explores the relationship between urban communities and peri-urban food systems in a salutary context of the Bologna, the principal city in the Emilio Romagna district with a long history of cooperation. In the context of his doctoral research Gabrielle is exploring innovative enterprises in Bologna's solidarity economy. While Italy has an enabling legal environment and a long history of supporting various forms of worker cooperatives and associations, large scale Community Supported Agriculture with a 600 members and food cooperative run through both work and member-volunteer labour are new to the Italian context. What is then required here is municipal government flexibility within existing legal frameworks to accommodate these new practices to cooperation.

Dr Stephen Healy is a Senior Research Fellow at the University of Western Sydney's Institute for Culture and Society. He was joined by Associate Professor Abby Mellick Lopes the Director of Postgraduate Design Studies at UTS, Gabriele Morelli is a PhD Student in Urban Studies at the University of Milan-Bicocca and currently a visiting fellow at the Western Sydney University, Michelle Zeibots is a Senior Lecturer in the School of Civil & Environmental Engineering at UTS and a garlic farmer near Lithgow, NSW. The session was chaired by Dr Adrienne Keane from the University of Sydney. A panel recording can be found here.

HENRY HALLORAN RESEARCH TRUST

The Henry Halloran Research Trust was established in 2013 through the generous gift of developer and philanthropist Warren Halloran. The Trust aims to become a leading voice and advocate for the advancement of liveable cities, thriving urban communities, regional planning and sustainable development. The Trust seeks to:

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– Promote collaborative cross-disciplinary engagement of local and international scholars, practitioners, and industry and government partners.

– Support and inform policy dialogue and academic, professional and public debate through research publication and public events that encourage inspirational thinking about how to better manage urban and regional development.

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