



THE UNIVERSITY OF  
MELBOURNE

Faculty of  
Architecture,  
Building and  
Planning

2025  
[msd.unimelb.edu.au](http://msd.unimelb.edu.au)

# Attrium



# Contents



03

Dean's message



04

Australian architects making it big in the US



08

Exploring the evolution of place at Merri Creek



10

The scar trees of Boort



12

Transforming Australia's building services industry through new business models



14

Revealing the echoes of the past at the Queen Victoria Market



16

Lessons from India: A blueprint for Australia's energy transition

18

Inside the Faculty



# From the Dean Julie Willis



**I'm pleased to present the final issue of Atrium for the year, and to have the opportunity to share with you some of the accomplishments and happenings in the Faculty of Architecture, Building and Planning over the last few months.**

The second half of 2025 has been filled with activity – in education and research, as well as our broader public program of exhibitions and events – all showcasing the collaboration and discussion coming out of the Faculty.

We have had several faculty members who have been successful in their recent Australian Research Council grant applications across a broad spectrum of topics including mould exposure in Australian homes, First Nations housing and using digital technology to help plan urban tree canopy coverage.

The Faculty hosted the annual symposium in November where, this year, local and international educators, designers, researchers, and people with lived experience converged to investigate how we can design learning spaces for neurodiversity and disability. Highlights included international expert Professor Magda Mostafa, pioneer in autism and neuro-inclusive design, and Dr Jodie Wilson, whose lived experience has made her a leading voice for disruption and equity.

We hosted our final Dean's Lecture Series guest for this year in August, Lina Ghotmeh of Paris-based Lina Ghotmeh – Architecture. Past merged with future as she presented *Archaeology of the future* discussing her works and the pivotal role historical research plays in informing her designs and philosophy, bringing together time, memory and space.

Emerging architectural practice was the focus of the exhibition 'Parts of Practice' in the MSD Gallery throughout September and October. The exhibition spotlighted a group of young Australian practices and explored how emerging practitioners often have a symbiotic relationship with architectural education. Much more than in past generations, contemporary practice is shaped through teaching, exhibiting, testing, making, learning and representing. The exhibition revealed the importance of architectural education, not just in shaping the next generation of graduates, but also in informing professional practice and design. It also speaks to the philosophy that underpins much of our approach to teaching here in the Faculty, particularly through our Design Studios.

The MSDx Summer exhibition held throughout the Glyn Davis Building in November, further highlighted the relationship between teaching and practice, with many built environment industry professionals leading studios and working closely with students on workshopping solutions to real-world design challenges through their projects and assessments.

I have been fortunate in recent months to have the opportunity to travel to Yogyakarta, Bandung, Shanghai and Hong Kong to visit universities and meet with alumni and partners. Engaging with alumni is more than saying hello to former students. It gives opportunity to understand where and what our graduates are doing, and to have conversations about the priorities for the future of our disciplines.

Our alumni are an important network of expertise, whose insights into finance, development, policy, and design are invaluable.

We look forward to welcoming our most recent cohort of new graduates into our alumni community, with students from across both our undergraduate and graduate programmes graduating this December at the Royal Exhibition Building. I look forward to watching what this next generation of designers and creators will achieve in their professional endeavours.



# Australian architects making it big in the US

— MELINDA BARLOW



**With many homegrown architects making it big on the world stage, we spoke to two of our alumni about their experiences of moving abroad and establishing themselves in the United States. Marina Carroll's and Grant Marani's stories showcase significantly different eras of the industry – Marani graduated with a Bachelor of Architecture in 1979, and he relocated to the US in the early 1980s, while Carroll completed her masters in 2010, and she moved to New York earlier this year. Yet despite generational differences, many of their experiences overlap, with both having similar motivations to develop their careers abroad.**

## Inspired by ideas and creativity

Grant Marani spent the first few years of his career in the late 1970s working in Melbourne with Edmond & Corrigan, during which time he founded the Half-Time Club. "It was a forum for young architects in Melbourne to keep minds alive and ideas afloat," explains Marani. This avenue served as a motivator for him to expand his architectural horizons and informed his decision to explore career opportunities further afield.

Development of a career overseas was grounded largely in a curiosity for a greater diversity of projects. "The scale and breadth of work in the US is simply larger. The US has been comparatively more international, and correspondingly, offered more opportunities." While most of his generation were migrating to London, Marani decided to move to New York. "I was enamoured with the city through architecture as well as film and music. I applied to graduate school at Cornell University and was accepted."

After finishing his Master of Architecture at Cornell in 1984, Marani worked with Edward Durell Stone Architects for a short time, then began to work with Robert A.M. Stern Architects (RAMSA) where he would stay for more than 4 decades – and remains today as Partner Emeritus.

## Developing her niche for the global stage

Marina Carroll's early career has some parallels with Marani's in that she also decided to develop her expertise locally before moving overseas. Carroll spent 13 years working with Architectus in Melbourne then Sydney and worked extensively with university projects across Australia. During this time, she was able to experience the challenges of relocating and building a new network locally, before moving internationally and doing the same thing in a culturally different landscape.



GRANT MARANI AT A RAMSA TEAM MEETING



MARINA CARROLL IN A CLIENT WORKSHOP





EMERALD RIVERSIDE  
ROBERT A.M. STERN ARCHITECTS (RAMSA)

Through her work at Architectus, Carroll was able to define her niche in the field of higher education architecture and began to understand the potential for career growth was much greater for her in the US. “I’m really proud of my work at Architectus, and particularly at Macquarie and the University of Melbourne on the sort of projects that transcend into global currency.” Like Marani, the size and opportunities of the market were hard for Carroll to ignore. “The US market is enormous – more firms, more projects, more pathways. That drives an astonishing depth of expertise and specialisation,” she explains. “With 43 universities in Australia and more than 4,000 in the US, it felt like a natural next step to move to the bigger pond.”

In early 2025, Carroll moved to the US and is now Principal and Interdisciplinary Practice Lead at Ayers Saint Gross. She is also a Fellow of the Urban Design Forum in New York.

### The power of creative communities

While Marani’s network in the US evolved naturally from his time at Cornell, Carroll was basically starting from scratch. From the beginning, her connections came from networking, and she advises this to any early career architects wanting to break into the US industry. “Network, network, network. The US design community is open and generous, and friends of friends will open doors.” Specialisation was also a great asset to Carroll as she relaunched her career in the US. With a focus on higher education, and an MBA she completed

in 2023, she found the sweet spot that differentiated her from other architects. “The architecture/business combination is rare and highly valued. Architects often shy away from the business side, but it’s powerful when you can bring both to the table.”

Marani had a different set of circumstances to contend with however, as Australia was far less accessible than it is today. “Being more connected globally through the internet, and with the ease of international travel, Australia is not as remote as it was when I left. Also, there are now several successful Australian firms on the international scene with offices around the world.” Marani says. “It’s a very different game.”

According to Carroll, we have as much to offer as to gain.



**Australians shouldn’t underestimate what we bring. In my case, Australia has always been fertile ground for progressive pedagogy, and the architecture we create reflects that. Many of the approaches we’ve developed are ahead of the curve.”**

Conversely, she is at the cutting edge of architectural practice in the university sector by being US based. “Ayers Saint Gross is the go-to firm for American universities and for me it’s the perfect fit: I’m combining business leadership with my design expertise and getting to work with some of the most prominent institutions in the world. My peers here are the best of the best in higher education design, and together we’re guiding clients through one of the most challenging moments in US higher education history.”

For Marani the travel and architectural opportunities were undeniable. “My biggest career challenge was the decision whether to go back to Melbourne or remain in the US. I originally thought I’d go back, but after 5 years, I made the decision to stay.” He now has a decades long career and a vast body of global work to look back on. “I’m fortunate to have been involved in work around the world, across a range of typologies, which is rare; from single-family houses to courthouses, to chapels, to planning 10 million plus square foot residential communities. I may never have had this type of opportunity in Australia. To this end, I’ve travelled the world, while leading the design of a wonderful range of projects.”



# The cities of the future have already been built. Are they built to last?

Retrofit: Friday 25 July - Friday 29  
August 2025, The Design Gallery

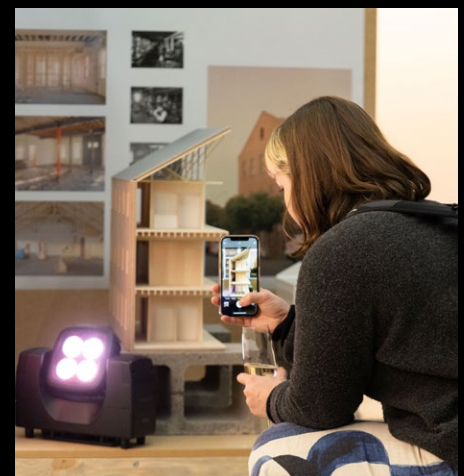
How we can adapt our urban environments in response to climate change, changing ways of moving through the city, and growing expectations for healthier, more connected communities?

Through architectural models, green infrastructure ideas, and street-level design interventions, the exhibition invited visitors

to rethink what's possible in familiar spaces. A climate safe room offered a glimpse into future adaptation, while a co-designed streetscape installation shows how everyday elements – like tree pots, bike lanes and footpaths – can be reimagined to support sustainability, wellbeing and social life.

By combining speculative design with real-world solutions, Retrofit made the case that the future of our cities depends on how we care for and rework what's already here. It asks: what will it take to retrofit our streets, our systems, and our shared priorities for a liveable urban future?

IMAGE CREDIT: STEPH IRVINE





# Exploring the evolution of place at Merri Creek

— MELINDA BARLOW

In 2024, Kate Haughey graduated from the University of Melbourne with a Master of Urban Planning and received the John Bayly Award for her thesis *The Genesis of Place: Exploring the essence of place-worthy protection at the Merri Creek*. The award is given to a student who has best demonstrated substantial or innovative use of library and archival sources and oral history methods as part of their studies in the Master of Urban Planning. Kate's thesis certainly required extensive research of this nature to reveal the evolution of community passion to protect the Merri Creek.



Coming from a small semi-rural community in New Zealand's North Island, Kate grew up surrounded by a beautiful natural environment. Her family regularly camped, swam and explored local beaches, mountains and national parks instilling her with a deep sense of connection to those places. "Growing up with a strong sense of community and access to so much natural beauty has helped shape my interest and my understanding of what it means to connect to place," Kate explains. "I always had an interest in placemaking and have tried to understand the intangible aspects of life that we can't see, but we can feel."

During her undergraduate degree in New Zealand, Kate researched the perception of threat felt by a South Island community when they learnt the Department of Conservation was dropping poison in a nearby National Park to control vermin. "The literature points to people making connections to places more easily when there are identifiable features in the natural

landscape such as a mountain or river." The sense of that community feeling personally threatened resonated with Kate and her interest in placemaking was solidified. "I like this idea of community and people being more important in creating place than the built form or even the natural environment to some extent."

## The components of place

As Kate considered potential topics for her thesis, she began exploring Merri Creek and the active community groups that engage with its protection. Merri Creek is a common waterway that runs for 60 kilometres from Wallan in Melbourne's north to meet the Yarra River at Dights Falls in Abbotsford. It attracts recreational visitors and is also home to an abundance of flora and fauna.

Kate's research examines the conditions that have defined Merri Creek as a place, and what motivated community members and groups to dedicate themselves to its protection and wellbeing. She conducted

interviews with community members and collected data that revealed seven key components of place. Some – such as memory, emotion and connection, protection, and biophilia – were consistent with literature she had reviewed. While others – use of space, threat, proximity, and community – were new.

"One of the interviewees talked about how the Merri Creek had been a dumping ground well into the mid 1970s, with little care, use or attention from local communities," says Kate. "As soon as the idea of the freeway was announced, the threat of that sparked an instinct to protect and that was the catalyst the community needed to leap into action."





### Threat as a catalyst to protect

Discussions at the time resulted in the development of a community vision and efforts to clean up the creek were made. "It's so interesting that the threat was the catalyst to act and not the fact that it was or could be a really well-loved space."

The place making components that evolved from Kate's research offered fascinating insights into the community's sense of Merri Creek as a place. Many felt a sense of connection to it because they either lived near it or had grown up around it (proximity). This then established a sense of shared experience and ownership and therefore connection to others that also had proximity in common (community). As threats have arisen over the years, the deeply human need to protect is activated (protection and threat) and they band together (community) to ensure the Merri Creek is retained as a viable place for the benefit of the community (use of space).



**People have started to view the creek as a living entity, as something that needs to be respected. They aren't just picking up rubbish to make it nicer; they're restoring an important natural ecosystem in an urban environment."**

TOP LEFT: MERRI CREEK PRE-COLONIAL SETTLEMENT. IMAGE CREDIT: TROEDEL, 1864

TOP RIGHT: A DEGRADED MERRI CREEK (BRUNSWICK/NORTHCOTE BOUNDARY). IMAGE CREDIT: FOMC, 1982

BOTTOM LEFT: MERRI CREEK CURRENTLY (NEAR COBURG LAKE). IMAGE CREDIT: NIXPAGES, 2011

BOTTOM RIGHT: KATE HAUGHEY AND PROFESSOR NICHOLAS PHELPS AT THE FACULTY OF ARCHITECTURE, BUILDING AND PLANNING DEAN'S HONOURS AWARD CEREMONY. IMAGE CREDIT: UNIVERSITY OF MELBOURNE



# The scar trees of Boort

— JILLIAN WALLISS AND VIRGINIA MANNERING



TOP IMAGE: NETHUNI SUMANAWEERA'S DESIGN FOR A KEEPING PLACE INCLUDED OFF-GRID ACCOMMODATION DJARRA TREE

BOTTOM IMAGE: SULOCHANA KHATRI'S ARCHITECTURE PROJECT, A LIVING CULTURAL CENTRE WAS SHAPED AROUND THE DJARRA TREE

The Lake Boort region is considered a nationally significant Aboriginal cultural site. With over 400 scar trees, mounds, ceremonial spaces and extensive artefacts, this ephemeral landscape offers visitors a unique immersive experience of Dja Dja Wurrung Country. On the eastern edge of Lake Boort is Paul Haw's farm which houses an informal keeping place for Dja Dja Wurrung. But this is only a temporary measure. Dja Dja Wurrung dream of a permanent space for their growing collection of artefacts and cultural items.

Final year thesis studios from architecture and landscape architecture came together to explore the possibilities. Guided by Dja Dja Wurrung elder Garry Murray and his son Djaran Murray-Jackson, the group headed to Boort to meet Paul Haw, visit the temporary keeping place and experience the complex cultural and ecological landscape. On our return, rather than force a collaboration between the two disciplines, we kept the studios separate but with some points of common discussion. We hoped that this dialogue and growing familiarity between students would encourage students to choose to work together. Over half of all projects developed as a cross-disciplinary collaboration. As is demonstrated in the following two examples, collaboration between the landscape architecture and architecture students produced more refined and ambitious projects.

Working at the regional scale, Maisie Mathews' *Between Boort's Walk* proposes a three-day walk conceived as a strategic catalyst for new land management strategies beneficial for farmers and Dja

Dja Wurrung. Rather than experiencing a 'pristine' landscape, walkers gain insight into the ecological reality of regional landscapes and sustainable practices for Caring for Country. Along manipulated watercourses in the Cobram Estate olive groves, walkers experience new endemic plantings linking fragmented remnants into biodiversity corridors to improve soil, water quality, and farm productivity. At Lake Boort and Lake Lyndger, they camp among the re-established River Red Gums and are exposed to the cultural burning practices which restore nutrients and manage invasive species. Located within these lake landscapes, and in the town of Boort itself are decentralised keeping places designed by architecture student Nethuni Sumanaweera. These structures display cultural artefacts and offer utilitarian infrastructures for rest. Imagined as a staged project that grows over time, Nethuni's keeping places respond to the landscape through small yet dynamic interventions that can move and shift with hydrological cycles.





LANDSCAPE ARCHITECTURE STUDENT KYI MIN TUN'S PROJECT RETURNING TO COUNTRY

Landscape architect Kyi Min Tun worked closely with architect Sulochana Khatri to develop his *Returning to Country* project. The Yung Balug Clan wish to repatriate their ancestors to Lake Boort to reestablish their spiritual connection, revive cultural practices, and to once again be buried on Country. Currently, the clan owns no property making this return to Country difficult. This design strategically uses a neglected transport zone along the lunette (a small dune) holds deep cultural significance for the clan, as it contains the ancestral burial grounds of their people. Sulochana, through her project titled *A living cultural centre* designed a Keeping Place housing the djarra tree, with spaces for accommodation, artefacts and interactive exhibits.

The Keeping Place acts as the public threshold, while beyond is a reimagined sacred landscape. Inspired by the patterns of the Spotted Quoll, a series of elliptical mounds, bowls, and vegetated flats, produces a landscape of concealment and revelation. A serpentine loam path weaves through this space, only accessible to

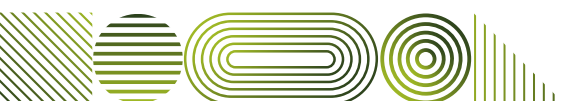
guests under the guidance of the Yung Balug Clan. The subtle topographical variation within the flat landscape, heightened by vegetation offers privacy for the Yung Balug Clan to practice cultural traditions (including burial) and continue caring for their Country and ancestral resting places.

In just 14 weeks, these final year students were tasked with, and succeeded in, building an understanding of a complex cultural and ecological landscape, interpreting the ambitions of the Yung Balug Clan and learning to work together as landscape architects and architects.

Students instinctively foregrounded key stakeholder consultation and collaboration which paved the way for a smooth flow of work and ideas between spaces of architecture and landscape architecture, sustainability, ecology and the history and requirements of the Dja Dja Wurrung.

**The studios concluded, serendipitously, on the same day the Treaty was signed between representatives of Victoria's First Peoples' Assembly and the State Government in a private ceremony.**

This was a coincidence that lent the occasion both gravity and joy. As students shared their projects before Uncle Garry and Djaran who returned to see their final presentations, the moment became one of celebration and reflection, marking a step toward listening, learning, and designing on Country with renewed energy, respect and reciprocity.



# Transforming Australia's building services industry through new business models

— MELINDA BARLOW



**Kebir M. Jemal is currently a PhD candidate at the Faculty of Architecture, Building and Planning at the University of Melbourne. His research evolved from an interest in Product Service Systems (PSS) and their potential application in making buildings more sustainable.**



JOHN ATKINS, DIRECTOR AT NAPIER AND BLAKELEY, KEBIR M JEMAL AND FORMER ASSOCIATE DEAN (RESEARCH) AT ABP MICHELE ACUTO, AT THE ABP'S DEANS PRIZE AWARD IN JUNE 2023.



Kebir was the inaugural recipient of the [DE Napier scholarship](#) in 2023, funded by quantity surveying firm Napier and Blakeley. The scholarship is awarded to high-achieving, graduate research degree students who are undertaking research in the fields of quantity surveying, construction management, or construction economics.

After completing his architectural degree from Addis Ababa University, Kebir moved to Kazakhstan to gain a Master of Engineering Management. It was during a Systems Engineering course in this program that he was introduced to Product Service Systems (PSS). This spark of curiosity led him to build his academic career around this topic.

“Product service systems are a business model where products and services are bundled together and offered as a package to the end user or the customer,” explains Kebir. “When I was exploring the application of this business model – for example, within the built environment – I noticed there were significant gaps in adoption and in the research as well, and that’s when I decided to explore this topic further and build my PhD around it.”

Kebir’s PhD explores the business drivers that facilitate the adoption of circular business models, with an emphasis on building service providers. “During my PhD, I’ve been lucky to be able to apply the knowledge I’ve acquired through my research to other industries like micromobility and housing.” Local and national issues have provided platforms to showcase his research, giving some topical context in the local industry.

During his PhD, the City of Melbourne provided Kebir with an example of the complexities involved in implementing PSS through its e-scooter trial.

According to [an article he co-wrote](#), the value of a low emission, cost effective model of transport was ultimately outweighed by public safety concerns. “Only with continuous ‘fine-tuning’ and support from city councils will circular business models – like shared e-scooters – have the potential to operate in a safe and sustainable way. These models rely on an understanding of the value proposition they provide to the public, as well as how the model will work in practice.”

The housing crisis has also recently enabled him to [provide insights](#) on the need to rethink property ownership and construction in Australia, as well as the value of applying new building models through prefabrication and servitisation (transitioning from a product-centric to a service-centric approach).

Most recently, Kebir has [written a piece](#) discussing the hidden dangers of the subscription model – brought to life as the ACCC brings a case against Microsoft for their alleged unethical practices around their subscription offers.

“**I strongly believe the aim of research should be to help solve problems in the real world and I’m glad that my work somehow contributes to that.**”

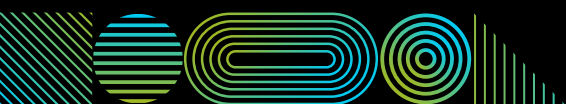
Kebir’s experience at the University of Melbourne and through receiving the scholarship has had a significant impact on the trajectory of his work. “It would be much more difficult to complete a PhD without a scholarship,” Kebir explains. “It’s a full-time commitment, spending 8 hours every day working on the research.” However, the

capacity to spend the time needed on his research is only one aspect of the benefits – the network of people to assist him has also been invaluable. This is especially so, considering he also had cultural transitions to make, by moving to a new country so far away from his home and family. “A PhD is largely a solo journey, but I’ve had such a great support system. My supervisors, colleagues and everyone I’ve interacted with at the University of Melbourne have really shaped my experience here.”

“**I’ve learned so many great lessons that I’ll take with me moving forward – from tackling imposter syndrome to being a well-rounded researcher – and just applying my research in the real world.**”

One of the highlights of Kebir’s PhD candidacy has been getting invited to present his work at global conferences. Most recently he travelled to Delft in the Netherlands to present his research at the [International Conference on Digital Frontiers in Building and Infrastructure](#), and in December 2025, he presented at the [International Conference of Green + Digital + Intelligent Built Environments](#) in Auckland, New Zealand.

“I want to express gratitude to Napier and Blakeley, my supervisors Associate Professor Ajibade Aibinu and Dr. Mehran Oraee, and all my colleagues and peers for believing in me and my topic. I’m really honoured that I get to represent them in conferences and publications as well. I’m doing my best with the PhD and trying constantly to be able to share my research.”



# Revealing the echoes of the past at the Queen Victoria Market

— MELINDA BARLOW



MOLLY CRAWFORD WITH HER EXHIBIT AT MSDX

For two years, Molly Crawford lived close to the Queen Victoria Market, never realising it had once been the site of Melbourne's first cemetery. That discovery sparked her curiosity and this, combined with her desire to design an open space in the heart of the city led her to Echo's Walk, her Master of Architecture thesis project.

## Securing the past to inform the future

Molly Crawford is an architectural graduate now based in New Zealand. After completing a Bachelor of Architectural Studies in Wellington in 2022, Molly relocated to Melbourne to complete her Master of Architecture in 2024.

For her thesis project, Molly's design asked the question: How can the historical layers of the Queen Victoria Market – once the location of Melbourne's original cemetery – be harnessed to create a dynamic cultural landmark that honours its past?

Featured in the MSDx Exhibition last summer, Molly's thesis redesigns the market's existing carpark, replacing it with an urban landscape design that reconnects the site to its cultural and environmental history. Her design integrates the Franklin Street stores along the southern boundary of the site, restoring them into a museum that preserves the layered heritage of the site. The project invites people to engage more deeply with the narratives of the place and develop an understanding of its past.





FRANKLIN STREET STORES,  
IMAGE CREDIT: MOLLY CRAWFORD



MOLLY CRAWFORD PRESENTING HER THESIS,  
IMAGE CREDIT: ALIDA COYLE

“

**By integrating a museum within the market, Echo's Walk creates a space for public reflection, cultural identity, and community connection.”**

### Reimagining the Franklin Street stores

Molly's research details that the market site was originally open plains, and grassy woodlands with kangaroo grass and red gum trees and was home to the Wurundjeri people of the Kulin Nation. As Europeans settled in the city in the 1800s, the Hoddle Grid was created, a rigid street layout that shaped Melbourne's growth. The market site shifts away from this grid at a 27-degree angle, a subtle reminder of the land's original contours and history.

As the new settlement grew, land north of the Hoddle Grid – now home to the Queen Victoria Market car park, and some of the trading sheds – became the city's main burial ground. It was used for this purpose from 1837 to 1853 before closing in 1854 because it was too small and too close to the city. A market was then established next to the cemetery that gradually grew, causing some exhumations to occur. Current estimates are that there are still up to 9000 burials remaining under the market site.<sup>1</sup>

“I wanted the design at the Queen Victoria Market to engage the community and reveal the historical layers of the site,” explains Molly. The project came with significant challenges, particularly because limited work had been done due to heritage sensitivities. “I went through countless documents and archives to understand what the site once was,” she says. “My design was guided by the restrictions and inability to introduce new structural foundations within the former cemetery and by the heritage status of the Franklin Street stores and the need to restore them.”

### Protecting heritage that inspires design for the future

At the heart of Molly's design is a deep respect for the heritage listed structures that frame the market. “With their red bricks, steel trusses and significant details and finishes, retaining and restoring the Franklin Street stores opened opportunities to create lots of different and unique spaces.” Molly designed a vertical structure between the stores to bridge them together. “I wanted to see how I could connect the CBD and North Melbourne together through the Queen Victoria Market car park. This informed the design of the Echo's walk journey to become a one-way museum.”

As you move through the tower, there are four different viewpoints from the north, south, east and west, all capturing different parts of history. “From these viewpoints we can look out on the cemetery and acknowledge what it used to be and imagine how we can further design for the future.”

<sup>1</sup> City of Melbourne website – [Old Melbourne Cemetery](#)



# Lessons from India: A blueprint for Australia's energy transition

— MELINDA BARLOW



In the heart of India's coal belt, a transformation is underway. As the world races towards renewable energy, new research from the Faculty of Architecture, Building and Planning is finding that energy transition is not just a technological challenge, but a profoundly human one.

Professor Piyush Tiwari, Dr Jyoti Shukla and Dr Raghu Tirumala from the University of Melbourne worked with two independent journalists working in India - Shuchita Jha, and Mayank Agarwal - to track social impacts in Anuppur in Madhya Pradesh (central India) in the wake of mine closures.

UNDERGROUND COAL MINE  
IMAGE CREDIT: PIYUSH TIWARI

The research, led by Tiwari and his colleagues, held eight stakeholder focus groups, and paints a sobering picture. When a mine closes, it's not just jobs that vanish. The ripple effects touch every aspect of community life. To effectively interrogate the impacts, the research team took evidence from those eight stakeholder focus groups. Participant stories spoke of falling incomes pushing families to withdraw children from education, to degradation of essential services like health, transport and water, and an increase in social harms like drug abuse and domestic violence.

It's a cautionary tale for Australia's coal towns, from the Hunter Valley to Central Queensland. Despite their differences the two countries face strikingly similar challenges, as both nations have historically relied heavily on coal for power generation and economic growth, with coal mining forming the backbone of many regional communities.



**India is on a clear and necessary path toward renewable energy – but the transition should also safeguard the livelihoods of those who've long relied on coal. A truly sustainable shift is one that brings communities along, not leaves them behind.”**

- Professor Piyush Tiwari

## Defining and advocating for a 'just transition'

This work aims to identify and propose how 'just transition' can be made, in ways that are not only more inclusive of the local community but also serve to preserve and protect their well-being in the process. The losses faced by these communities are vast, and the research found that a critical determinant for a 'just transition' lies in the capacity for affected communities to address those losses.

In the Australian context, there are important lessons that can be taken from this research. Both India and Australia share common challenges around geography and revenue dependency – both countries need to determine how to maintain revenue streams as renewable energy replaces coal fired power. Additionally, both countries must manage the purposeful transition of the people, communities and land left behind.





LANDSCAPE IN COAL MINING AREA, ANUPPUR, JULY 2024.  
IMAGE CREDIT: PIYUSH TIWARI



TOWNSHIPS IN COAL MINING AREA AFTER MINES ARE CLOSED, ANUPPUR, JULY 2024. IMAGE CREDIT: PIYUSH TIWARI

Dr Jyoti Shukla is a Senior Lecturer at the University of Melbourne and also one of the researchers on this project. “There are two very broad level problems common in this discussion” she says. “The revenue currently earned from coal mines and the coal industry in general, is huge for all governments, either at the local, state level or central level, so letting it go will not be easy. A challenge lies in how governments are going to compensate for their own loss of revenue.”

The losses in terms of employment, livelihood and security are really significant, explains Dr Shukla. “What approaches will countries take to ensure the labour force that’s currently employed in the coal industry is not redundant and will be taken care of? What are the alternative employment opportunities - whether it’s in the clean energy industry or another alternate industry? Where can people go to continue to use their skills? This is a common problem that all governments are going to have to address.”

As coal mines are closed down across the globe, there is also a question around what can be done with the land and the now redundant mining infrastructure. “One important thing our research has revealed is the need for discussion with the community - especially on ways to reuse the land and the surroundings. How can they reuse the redundant resources that are in hand and how can those be used to the best advantage of the community?”

### Power to the people

The answer, according to the research lies in community engagement. Dr Shukla explains: “one important solution this research is proposing is that engaging the community would be the fundamental first step – not only in terms of coal mine closure – but also for the futuristic problems and solutions we’re creating in the form of clean energy. I think only the local people will know how best it can be done and it’s all of course in discussion with experts from government and non-government organisations who know the local flora, fauna, and geography and who’ve been involved in the process all along. They will be best placed to advise how to deal with the closure of mines and prevent detrimental ecological, social and economic impact.”

In the Australian context, expanding existing frameworks to proactively incorporate Indigenous knowledges is also vital to the rejuvenation and repurposing of vast sections of mined land. “Most of these projects in the Australian case are on the lands of First Nations peoples. One very strong tool we have is Indigenous knowledge, but we haven’t tapped into it enough”, says Dr Shukla. “The question is how do we document and create a good repository of that Indigenous knowledge that can be accessed by the energy industry?”

The path forward, according to the researchers, is one of collaboration. Urban and rural, industry and academia, government and NGOs – must work in concert.

As Australia charts its course to a coal-free 2050, the lessons from India’s coal belt offer a valuable compass. The message is clear: a truly just transition puts people first. It’s not just about changing how we power our homes but about empowering our communities to thrive in a new energy landscape.

The evidence shows deep, interlocked capability deprivation of coal mine residents; vulnerabilities structured by class, caste, gender, age, and tenure; and an institutional deadlock – especially over land and service ownership – that keeps promising ideas from scaling,” Professor Tiwari explains. “Communities nevertheless possess assets and ingenuity to rebuild if given lawful space and reliable conversion factors. The literature affirms that where land repurposing is enabled, services are re-anchored in civic institutions, and participation is real, diversification takes root and social harms recede.

Dr Shukla has emerged from the research with a deep belief in the power of collaboration around these. I think it’s important that we collaborate with stakeholders in projects and decision making,” she explains. “Academia and industry need to work together on these issues with the government and the NGOs. We need to establish institutions like Australia’s First Nations Clean Energy Network that serve as the bridge between the communities and the governments and academia, so that we have a framework that is comprehensive and unbiased.”



# Inside the faculty

## People and news

— SOPHIE HILL

**Stanislav Roudavski** has received a European Research Council Synergy Grant, for his project **PLANETARY EEL** which addresses the complex challenges to the reproduction of life on an increasingly damaged and unequal planet through the lens of human-eel relations. Stanislav is the first University of Melbourne staff member to receive a ERC Synergy Grant, with only four Australian researchers receiving one in the grant's history.

**Christhina Candido** is part of a successful ARC Discovery Project titled *Mould exposure in Australian homes: from remediation to prevention*. Led by the University of Sydney, the project addresses the widespread and serious issue of mould affecting one in three Australian homes.

**Rory Hyde**, and the team he assembled – **Rebecca Bentley, David O'Brien, Hannah Robertson, Daniel Hill, Alan Pert** and **Sarah Rees** - have been awarded an ARC Linkage Project for *Co-designing housing for first nations prosperity*. Working with the Kaiela Institute, Beyond Housing, Jackson Clements Burrows, Arup, and VACCHO, the team will develop a participatory model for affordable, culturally grounded housing that advances Closing the Gap targets and supports long-term community prosperity.

**Daniel Parker** was awarded the Chancellor's Prize for Excellence (Humanities, Creative Arts and Social Sciences) in 2024 for his thesis entitled *Designing for multispecies cohabitation: the case of prosthetic habitat-structures*. Daniel's thesis was supervised by Stanislav Roudavski and Kylie Soanes (Faculty of Science).

**Nano Langenheim** has been awarded an ARC Early Career Industry Fellowship for her project *30% Tree Canopy but How and Where? A Novel Urban-Forest Digital-Twin*, with industry partners City of Port Phillip and Player Piano Data Analytics Pty Ltd.

In August the Faculty welcomed alumni who graduated more than 50 years ago to a celebratory lunch hosted by **Philip Goad** and attended by Faculty staff and students.

**Karen Burns** and Lori A. Brown (Syracuse University) edited the first global encyclopedia on women's architectural production in the period 1960-2020. Featuring over 1,000 entries, comprising 833,000 words, it is available online (at Bloomsbury Digital Resources) with a two-volume hard copy to follow.

**Piyush Tiwari** has been appointed to be part of a team to write the *UN-Habitat's World Cities Report 2026*. The report will be launched at World Urban Forum in May 2026 and would focus on the housing crisis that looms around the world.

**Crystal Legacy** won the 2024 Geographical Research highly esteemed paper prize for *Proposing an ethics of care: Tracing Victoria's transport planning history*. The paper is co-authored with Drs Rebecca Clements (RMIT), Ian Woodcock (University of Sydney) and James Whitten (Monash University).

**Stuart King** and Tania Sengupta's recent book *Reclaiming colonial architecture* has won the Society of Architectural Historians Great Britain's 2025 Colvin Prize for outstanding works of reference.

Alum **Sarah Buckeridge**, Co-Managing Director of Hayball, has received the Victorian President's Prize at the Australian Institute of Architects Victorian Honours held in November.



## Events and exhibitions

### Dean's lecture series: Lina Ghotmeh

Lina Ghotmeh, founder of the internationally acclaimed firm Lina Ghotmeh – Architecture, explored the *Archaeology of the future* in her public address. She looked at the ties all architecture has to its place and to the traces of its past, serving as a link between time, memory and space. She discussed her practice's philosophy, which emphasises the power of craft and that of the hand in the making of Architecture. Through this, the built embraces the traditions of its localities, while uplifting the subjective experience and the collective memory of those it recalls.

### Robert Garland Treseder Fellow public lecture: *Sustainable urban real estate development*

Rasmus Nørgaard was this year's Robert Garland Treseder Fellow at the Faculty of Architecture, Building, and Planning. In his public lecture he explored how the real estate sector sits at the intersection of the climate crisis, the housing crisis, and rising inequality, and how the sector can in fact transform from being part of the problem to part of the solution where real estate is both sustainable, inclusive, and profitable. A video of the public lecture is available at the Faculty's YouTube channel.

### 2025 Symposium: *Designing learning spaces for neurodiversity and disability*

What if learning spaces were designed for *everyone*? Learning spaces shape how we connect, grow, and thrive – yet too often, they exclude. The 2025 Symposium: *Designing Learning Spaces for Neurodiversity and Disability* brought together educators, designers, researchers, and people

with lived experience to ask: how can classrooms and campuses truly include everyone? Highlights included international expert Professor Magda Mostafa, pioneer in autism and neuro-inclusive design, and Dr Jodie Wilson, whose lived experience has made her a leading voice for disruption and equity. Guided by symposium convenor Assoc. Prof. Ben Cleveland, the program blended research, advocacy, and personal stories to reimagine education environments that enable participation for all.

### MSDx Summer

The Glyn Davis Building was transformed into a multi-floor gallery space for MSDx Summer kicking off in November. The Tract Speakers Corner series returned, with a lineup of talks from students, academics, and researchers. DesignX once again took over the basement level, a dynamic showcase of over 700 graduating Bachelor of Design students across their 12 capstone studios. In the levels above, work from our graduate and PhD students across the disciplines of architecture, urban planning, urban design, landscape architecture, heritage, property and construction filled every corner of our gallery spaces, studios and the Atrium.

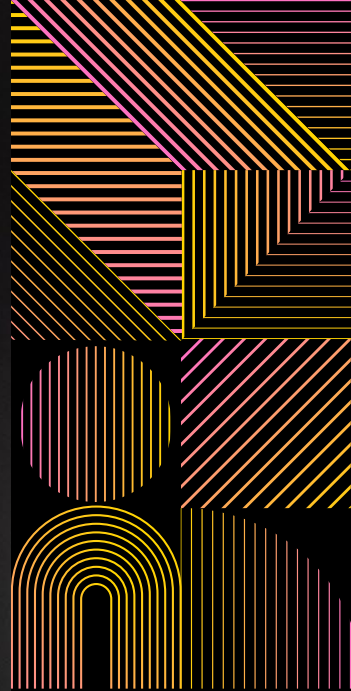
### Asian real estate conference

Piyush Tiwari, Jyoti Shukla and Raghu Dharmapuri Tirumala were heavily involved in hosting the Asian Real Estate Conference in July. The conference facilitated strong engagement from the property discipline and industry. The conference included PhD colloquia, ensuring great connection between established scholars and thinkers in the field and the next generation.

### Pixels to Planet: XR Storytelling for Architecture and Climate Action

Asensio Villoria and David Mah hosted the *Pixels to Planet: XR Storytelling for Architecture and Climate Action* symposium in July. The event was made possible through the ABP/Bartlett Collaboration grant and represents a deepening partnership between both institutions. The three-day symposium explored how immersive technologies – such as extended reality (XR), speculative design, and spatial storytelling – can help us communicate and co-create climate-resilient urban futures.





**PUBLISHED BY  
THE FACULTY OF  
ARCHITECTURE,  
BUILDING AND  
PLANNING**

**December 2025**

**Editor:** Sama Hugo

**Design:** Studio Binocular  
Authorised by Professor  
Julie Willis, Dean, Faculty  
of Architecture, Building  
and Planning

**CONTACT**

Faculty of Architecture,  
Building & Planning  
University of Melbourne  
Victoria 3010 Australia  
[msd.unimelb.edu.au](mailto:msd.unimelb.edu.au)

**Front Cover:**

Left to right: University  
of Melbourne staff  
Professor Sarah Bell  
and Marita Doak  
Chairs from F\_Lab:  
Bespoke Furnitures,  
Studio Coordinator:  
Rochus Hinkel

**Back Cover:**

Work from Studio E:  
Substance, Studio  
Leader: Michelle Gan  
Images: Steph Irvine

**49 2025**

ISSN 1447-1728  
The University of Melbourne  
CRICOS provider code: 00116K

