

# Symposium Program

# Untaming the Urban

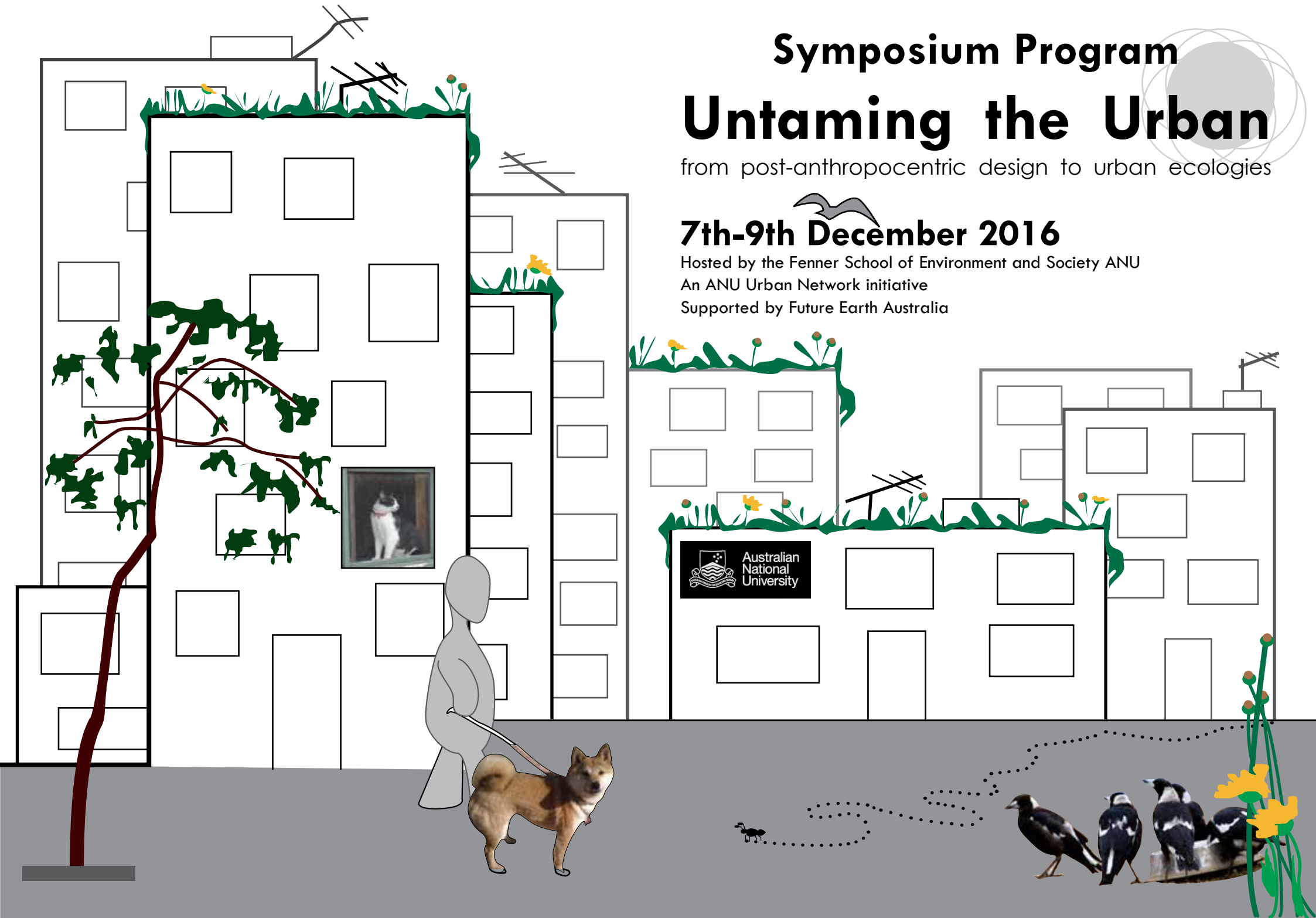
from post-anthropocentric design to urban ecologies

7th-9th December 2016

Hosted by the Fenner School of Environment and Society ANU

An ANU Urban Network initiative

Supported by Future Earth Australia



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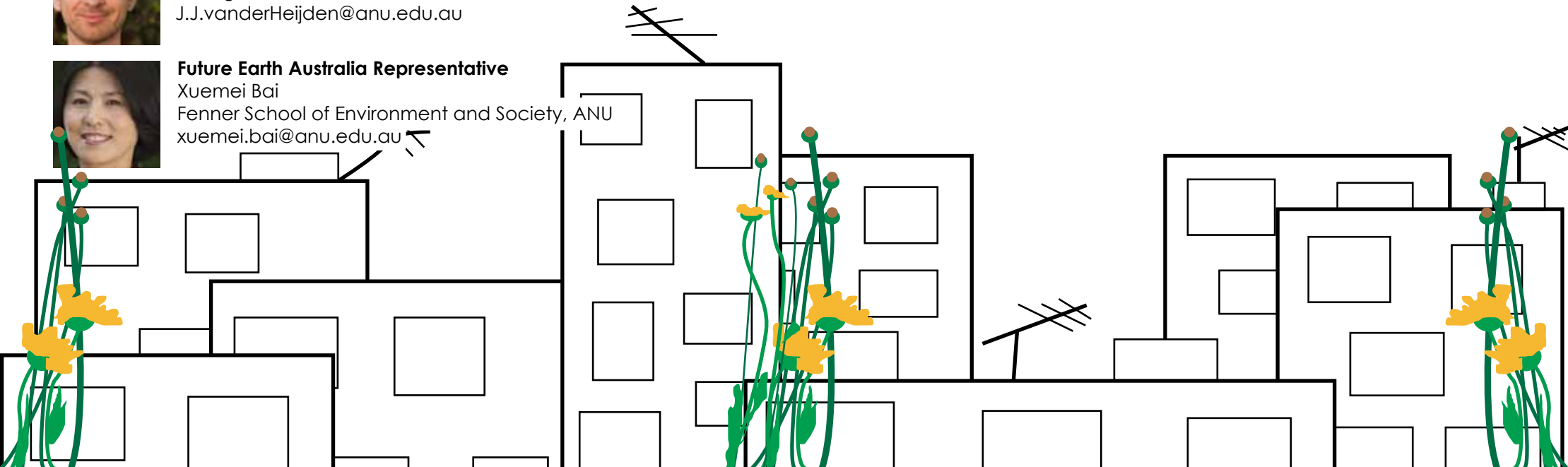
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## Symposium

We share our urban habitat with many other species - plants and animals, domestic and wild. This symposium aims to bring together many different disciplinary perspectives to re-imagining urban spaces as constructed ecologies that can facilitate cross-species conviviality.

- 1. Aim:** To provide a space for conversation, critic and collective imagining where a range of post-anthropocentric, more-than-human, cross-species and ecological theory related questions can be interrogated and further developed in relation to the urban environment.
- 2. Objective:** To facilitate a re-imagining of the urban built environment for cohabitation, cross-species conviviality and an expanded notion of everyday life into an ecological scale.
- 3. Outcome:** To consolidate the symposium's discussion and contributions into an edited book

For more information see the blog <http://untaming-the-urban.tumblr.com/>



# Untaming the Urban P r o g r a m

from post-anthropocentric design to urban ecologies

## Pre-Symposium Activities:

Wednesday 7th December 2016

Time	Activity	ANU Venue
12:00 noon	Lunch and Coffee available at the Little Pickle Cafe	Little Pickle Cafe R.N Robertson Building #46 Biology Pl
<b>12:30pm</b>	<b>Registration</b> /meeting place (at Fenner Seminar room, ANU)	Fenner Seminar Room Fenner Fenner Building #141 Cnr of Daley Rd and Linnaeus Way
<b>1:00 - 2:00pm</b>	<b>Frog Field Walk</b> with Anke Maria Hoefler ACT Frogwatch Coordinator	Start and ending at Fenner Seminar Room
<b>2:00 - 3:00pm</b>	Elizabeth Demaray demonstration of <b>Pandorabird</b> - solo exhibition, see <a href="http://hyperallergic.com/337111/identifying-the-musical-tastes-of-birds/">http://hyperallergic.com/337111/identifying-the-musical-tastes-of-birds/</a>	Starts at Fenner Seminar Room
3:00 - 3:15pm	Coffee available at the Little Pickle Cafe	Little Pickle Cafe
<b>3:15 - 4:00pm</b>	<b>Lyndsay Pryor Tree Walk</b> see <a href="https://visitcanberra.com.au/attractions/572fe693addd235f4ef67f29/lindsay-pryor-walk-australian-national-university">https://visitcanberra.com.au/attractions/572fe693addd235f4ef67f29/lindsay-pryor-walk-australian-national-university</a>	Starting from John Banks Courtyard at Fenner Ending at Sculpture Workshop, School of Art
<b>4:00 - 5:00pm</b>	<b>Artist Panel Discussion &amp; Group Exhibition</b>	Sculpture Workshop, School of Art West side of Building #105 Ellery Crescent
<b>5:00 - 7:00pm</b>	<b>Welcome Drinks &amp;</b> Digital creative/visual presentations Finishing at the <b>Wig &amp; Pen Micro-brewery</b>	Starting at Sculpture Workshop, School of Art Finishing at Wig & Pen, Llewellyn Hall, School of Music Building #100 William Herbert Pl

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## Symposium Day 1

Thursday 8th December 2016

Time	Activity	ANU Venue
8:30am	Symposium Opening	Fenner Seminar Room
<b>Session 1 - Conceptualisation</b> - Convenor: Viveka Turnbull Hocking (viveka.hocking@anu.edu.au)		
9:30am	Joyce Hwang (USA - Pre-recorded): <b>Untaming Architectural Typology</b> & Ned Doddington (USA - Pre-recorded): <b>Urban Umwelt; already wild</b> facilitated by Susan Boden*	Fenner Seminar Room Fenner Fenner Building #141 Cnr of Daley Rd and Linnaeus Way
10:00am	Catherine Clover, Stephen Barrass* & Steev: <b>Social Interaction with the Internet of Possums</b>	
10:30am	Milica Muminovic: <b>Alternate perspectives of urban everyday: tolerance and cohabitation from the Barn House to the city</b>	
11:00am	Morning Tea	
11:30am	Mitchell Whitelaw: <b>Traces of Cohabitation: data design for urban ecosystems</b>	
12:00pm	Stanislav Roudavski: <b>Towards Living Architecture</b>	
12:30pm	Elizabeth Demaray (USA): <b>Trans-species Giving and the Cyborg Futures of the Non-human</b>	
1:00pm	Lunch	
<b>Session 2 - Praxis</b> - Convenor: Kathy Eyles (kathy.eyles@anu.edu.au)		
2:00pm	Amy Hahs: <b>The Role of Biodiversity in Creating Healthy Cities and Towns</b>	Fenner Seminar Room
2:30pm	Cristina Ramalho*, Leonie Valentine, Luis Mata, Patricia Kennedy, & Richard Hobbs: <b>Novel Resources for Threatened Fauna in Urban Environments</b>	
3:00pm	Darren Le Roux & Karen Ikin : <b>Messy Parks and Levitating Trees: managing habitat structures in urban landscapes</b>	
3:30pm	Afternoon Tea (provided)	
4:00pm	Kylie Soanes: <b>Threatened species management in urban landscapes: the need for creative conservation</b>	
4:30pm	Ferne Edwards: <b>The Urban Beehive: Beekeeping and the Sustainable City</b>	
5:00pm	Georgia Garrard*, Luis Mata & Sarah Bekessy: <b>Conservation Tools for Sharing Cities with Nature</b>	
5:30pm	Break - Pre-Dinner Drinks at Fellows Bar (Price: Pay at the Bar)	Walk to University House
7:00pm	<b>Dinner</b> (Price: \$48 each) Speaker: Untaming the Urban, The Art of Elizabeth Demaray	Drawing Room at Boffins, University House Building #1, 1 Balmain Crescent

# Untaming the Urban Program

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## Symposium Day 2

Friday 9th December 2016

Time	Activity	ANU Venue
9:00am	Start of Day 2	Fenner Seminar Room
<b>Session 3 - Imagination:</b> Convenor: Andrew Mackenzie (Andrew.MacKenzie@canberra.edu.au)		
9:30am	Linda Corkery, Paul Osmond, Natalie Pelleri*, Sara Wilkinson: <b>Urban Ecology Renewal – re-wilding Sydney</b>	Fenner Seminar Room Fenner Fenner Building #141 Cnr of Daley Rd and Linnaeus Way
10:00am	Katherine Berthon: <b>Greening Up: Making Room for Wildlife in Cities</b>	
10:30am	Paul Downton: <b>Design Guidelines for Urban Non-Humans</b>	
11:00am	Morning Tea	
11:30am	Simon Kilbane: <b>New Natures: Landscape architecture, ecological and urban design from the scale of the street to the region</b>	
12:00pm	Wendy Steele*, Cecily Maller, Ilan Wiesel: <b>Into the Wild</b>	
12:30pm	Lunch	
1:00pm	<b>Book Discussion</b> - Post-symposium plan - potential timeline, publishers, chapters/section organisation, etc.	
2:00pm	<b>Symposium Close</b>	
3:00pm	Break	
4:00 - 6:00pm	<b>Closing Drinks</b> We are joining the Fenner School Xmas drinks	Fellow Garden, University House Building #1, 1 Balmain Crescent

\* Presenter

## **Conceptualisation Stream aims:**

Alternate perspectives of urban everyday cohabitation. Revealing from your research possible ways of thinking about, expanded sensory perceptions of and innovation for cross-species cohabitation in our urban built environments. To prompt discussion on how we can re-contextualise the way we think about and act in our urban everyday life to re-engage us with our world, our animal selves and the diversity of other urban dwellers.

We are starting the symposium with this stream exploring alternate perspectives to broaden our thinking and potentiality of Untaming the Urban, bring in the cultural and dislodging us from our disciplinary frameworks. To engage in creative thinking and discuss a more-than-human reconceptualisation of our urban everyday lives.

## **Untaming Architectural Typologies**

**Author:** Joyce Hwang, University at Buffalo, State University of New York, School of Architecture and Planning; Ants of the Prairie

**Abstract:** Despite the regulations that we place on the environment and how we inhabit it, our buildings and urban landscapes are inevitably appropriated in different, unexpected ways. Urban structures, by default, almost always become occupied by unintended inhabitants – for example, bats roosting in attic spaces and birds nesting on building ledges. The fact that we share our cities with many species needs to have a much broader cultural resonance. Current architectural conventions and sensibilities will need to be challenged. In this presentation, I will discuss a series speculative design proposals for building and landscape 'typologies' that invite cross-species co-occupation in the urban realm. Drawing in part from spatial and material tactics used in designing past architectural projects, these speculative typological proposals suggest a way to reimagine the built environment in a way that gives agency to the animal population by welcoming their influence in determining how spaces are organized, formed, and built. Considering biologist Jakob von Uexkull's "umwelt" – a term he uses to describe the specific environmental conditions required for a particular species – these proposals will bring into question our conventional notions of building components, for instance: roof, foundation, wall, and window. This presentation will reflect on how fundamentally rethinking building typologies can suggest a more palpable, resonant environment that not only impacts species and habitats, but also human perception and experience. It is only at this point of radical rethinking that an architecture of poignancy can be achieved, for it is the resonant experience of life's collective embodiment in our space that reveal our vulnerabilities as human subjects in an increasingly fragile and contested world.

## **Discussion Questions:**

1. Architectural typologies suggest specific ideologies, hierarchies, and modes of living through organizational spatial principles. For example, the fact that a cathedral is organizationally different from a mosque implies differences in beliefs and practices. How might new or altered building and landscape typologies shift our perspectives on inhabitation and occupancy? And how might they cultivate a sense of empathy with non-human urban species?
2. How might new architectural typologies suggest different ways of experiencing buildings and cities, and how could they begin to instigate ways of challenging our conventional notions of the cities today?
3. In urban environments, animals are typically considered along a spectrum of two extreme positions: first, that animals are a form of spectacle (birds as objects of desire), and second, that animals are a form of nuisance (birds as pests to be managed). How might we start to define and describe the varying shades of "middle ground" between these two positions, between notions of spectacle and maintenance? And how might we incorporate and negotiate issues of ethics in relation to this spectrum?

# Untaming the Urban

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## Urban Umwelt; Already Wild

**Author:** Ned Dodington, AIA; LEED G.A. Director, The Expanded Environment

**Abstract:** We are not the only species in our environments. We are already multiple beings.

Over the last decade the Expanded Environment (<http://www.expandedenvironment.org>) – a nonprofit 501c3 organization devoted to demonstrating alternate ways of responsibly and synthetically integrating biological and ecological agents into the built world – has observed, cataloged and discussed ways in which humans can more proactively include the lives of others in our built worlds.

The presentation, "Urban Umwelt," will featured a wide range of projects - from the practical to the fantastical - that explore and provoke alternate ways of living in a bio-diverse world. The suggestion is that urban living as an already a rich array of Umwelten (literally "inner-world" and understood as subjective world-views) - a condition teaming with non-human actors already at play transforming, using, and co-opting demonstrably "human" landscapes to their own wants and desires. These "unsanctioned" activities occur within our walls, behind our alleys and often in dark unreachable places, constantly renegotiating the terms of "wild" and "cultivated."

The case-studies, investigations and illustrated work within the presentation (featuring micro-habitat installations for local wildlife colonization, networked habitats for native and migratory birds as well as strategies for larger, urban-scaled re-ecofication among other interventions) posit that architecture is never only for humans and therefore already uniquely suited to bridge between human and non-human worlds. And yet, though our buildings may be unwittingly co-opted by non-human users, our built worlds sadly reflect merely the mono-world of the human umwelt. What if our built worlds reflected the panoply of other world-views?

### Discussion Questions:

1. What would a multi-umwelt world look like?
2. How does designing for non-human use transform/negate/redefine the practice/history/definition of architecture?
3. Could there be an anthro-ecentric (that is non-human centered) urbanism? What would it take to get there?

# Conceptualisation Abstracts

## Social Interaction with the Internet of Possums

**Authors:** Stephen Barrass, University of Canberra

Catherine Clover, Independent Artist

Steev, Citizen of Canberra

**Abstract:** Canberra is known as the "bush capital", which has facilitated the movement of possums into garages and roof-spaces where they have flourished. Their noisy nocturnal habits and propensity to nibble the roses has led to a love/hate relationship, and Canberrans generally consider them as pests. This has led to pest removal approaches such as baiting, trapping, scent-off, auditory sirens and flashing lights. A more co-habitative approach has been to provide hutches that encourage possums to move out of the house and into the garden.

Our project, The Internet of Possums, aims to shift the general attitude toward urban possums from pests to pets using ideas inspired by Donna Haraway's Companion Species Manifesto (2003) and Val Plumwood's proposals for interspecies communication (Environmental Culture, 2002). The online possum hutch will be a site for inter-species social media, communication and relationship building. We will present a speculative design of an Internet of Possums hutch comprised of open source software and hardware components that allow audiovisual communications. The prototype will be installed as part of the exhibition. From within the hutch a voice will be heard reading a range of fiction/nonfiction, including transcriptions of the sounds of possums, excerpts from field guides about how we classify and identify them, and dreamtime stories about possum ancestors. This is intended as a kind of offering, a means of sharing space, in the same way as the concept of pest becoming pet.

Since this project aims to foster beneficial interactions with possums in line with the overall theme of the symposium, we need to ensure that we develop something that is mutually agreeable. While possums wouldn't care too much about being observed (visually and aurally) they may not take to disturbance by us piping sound into their box. Or maybe they won't care ?

### Discussion Questions:

1. This is an opportunity to question the assumption that possums won't care about being observed, which is the general approach taken by ecologists. Can we play with that idea? Even if possums don't care there are people who will. Who are these people and how can their concerns guide the further development of our concept ?
2. If possums do care, can we obtain their consent, or develop a method of interacting with them that they can initiate or curtail?
3. What do we mean by pets, and how might we shift that meaning to promote urban co-habitation?

# Untaming the Urban

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# Conceptualisation Abstracts

## **Alternate Perspectives of Urban Everyday: tolerance and cohabitation from the Barn House to the city**

**Author:** Milica Muminovic, University of Canberra

**Abstract:** Definitions of urban, although becoming diverse in last century are still referring to the ancient Roman concepts, interrelated with notion of being refined and sophisticated[1]. The central figure is sophisticated citizen, emerging in democratic and tolerable relationship with the city and other refined citizens. Tolerance as the form of existence and process of creation of urban is a form of ideology[2]. Tolerance is distancing and thus ignoring the other and that other is always human other.

Barn House project questions the concept of tolerance and in its design expression identifies three main elements: living with nature, living with seasons and living poetically. Those three spheres are discussed at the spatial, activities, and meanings level that constitute concept of place. Barn House offers unique spatial elements that bring cohabitation of nature and human poetics in everyday; however they include the aspects of action and embracing the other side of that nature. Horses and humans are brought together spatially and experientially. That relationship also includes constant involvement and action. The experience is transmitted through all the senses; we hear the horse, smell the horse and see the horse. It is present in all its beauty and ugliness. The experience between is beyond mere tolerance and questions its possibility at the urban scales.

The presentation uses exploration of Barn House to discuss the experience and relationships between various species in city and the questions of urbanity. Within the topic of cohabitation, the presentation focuses not on the experience of, but experience between. Interrogating Barn House experience, the paper revisits urban concept of tolerance as cohabitation with the focus on phenomenological Other.

### **Discussion Questions:**

1. What is the difference between cohabitation, co-inhabitation, tolerance, urban and natural?
2. How can design play role in exploring the relationships of cohabitation? Re-engage with the Other.
3. How can we link various scales in interrogating the urban/natural in everyday life?

**Barn House** is winning project at an international design competition "The next generation sustainable house" in Taiki-cho, Hokkaido, Japan. The house reaches beyond obvious practices for extremely cold climates (i.e. passive solar design), by proposing the lifestyle, which meaningfully intertwines with broader rhythms of nature. The house connects with the totality of place by capturing and extending memories, by redefining the role of horses to meaningfully fit the needs of the present day; therefore it is co-inhabited by two humans and two horses. <https://www.japlusu.com/news/barn-house>

[1] Ramage, E. S, 1973, *Urbanitas: ancient sophistication and refinement*, University of Oklahoma Press, Oklahoma.

[2] Žižek, S, 2008, Tolerance as an Ideological Category, *Critical Inquiry*, 34(4), 660-82

## **Traces of Cohabitation: data design for urban ecosystems**

**Author:** Mitchell Whitelaw, ANU Design, School of Art

**Abstract:** Our urban ecosystems are increasingly traced through data, from satellite imaging to citizen science observations. These data layers are largely treated as neutral scientific instruments, and represented through standardised, prosaic forms such as web maps. However as the scale and richness of these digital resources builds, new opportunities emerge for using them as traces of cohabitation. This practice-led research project investigates the potential of biodiversity data as a material for design. It aims to make our urban ecosystems more visible, as well as create richer representations; multilayered digital landscapes that reflect the complexity (and precarity) of the living systems we share the city with. These environments are what Latour would call matters of concern: entangled, affective and contested sites that resist simple interpretation. Latour challenges design to find visualisation tools adequate to represent matters of concern, calling for "a means for drawing things together — gods, non humans and mortals included." This project offers a response.

Using data gathered from citizen science initiatives such as Canberra Nature Map and harvested from public sources including the Atlas of Living Australia, this presentation will investigate strategies for tracing cohabitation. Key challenges include how to mine and display the complex spatial and temporal patterns in this data in a way that balances richness with legibility. Much of the crowdsourced data reflects the specific interests and affinities of the contributors, focusing on specific sites, species and landscapes. How can design amplify these traces of coexistence? This project draws on familiar conventions of web design and data visualisation, but also seeks out poetic approaches that enliven and animate this data, rather than (falsely) render it neutral, objective and stable.

Biodiversity datasets are profoundly human artefacts shaped by layers of cultural practice, scientific epistemology and technological convention. This project proposes nonetheless that these datasets can be redeployed to reveal, and celebrate, our entanglement in living environments.

### **Discussion Questions**

1. How can biodiversity data help reveal urban ecosystems?
2. How might we design representations of this data? What are the potentials and limits of prosaic and poetic approaches?
3. Can data connect across disciplines? What role can data representations play in multi-disciplinary approaches to urban ecosystems?



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## Wild Architecture

**Author:** Stanislav Roudavski, Melbourne School of Design, The University of Melbourne

**Abstract:** Persistent conservation of any one set of environmental conditions is impossible. Minimization of environmental impacts – the goal of ecological design – is insufficient. Predictive modelling of future conditions, especially at large scales, is inherently limited. The very adherence to stability is futile and even undesirable...

Provoked by such propositions, this presentation considers how design can engage with complex, unceasing systems and whether it needs to reconsider its concepts in the light of such engagement. For example, in the world where nonhuman organisms are accepted as co-designers, should design theory have frameworks that can account for ant hills as well as for condominiums?

The key move of this refocusing is a shift from ideation and planning to sensing, adjusting and redirecting or – in other words – from the attainment of states and outcomes to the facilitation of ongoing change. Examples discussed in this presentation come from the field of architecture and consider whether forms of architecture that purposively incorporate change can be conceptualized as living. Here, the notion of 'living' is understood as an open concept that can link heterogenous events across multiple scales. The nature of these events and characteristics of their participants are far from obvious. When the notion of living becomes open the boundaries of recognizable terms become fuzzy and binary designations emerge as continuous: entities can be semi-living, physiology can be external and intelligence can be distributed. The examples of this presentation explore the idea of living architecture through an approach that uses animal architecture and autonomous robotics as catalysts for further research.

### Discussion Questions:

1. Who are the actors? In what some call 'next nature', what is a living entity? How can it be recognized? Can it be made?
2. What is of value? Is historically determined diversity valuable? Is disruptive curiosity lamentable? Should synthetic life forms go wild?
3. What can be done? What languages can link human and non-human co-designers? What productive practices can be compatible with unavoidable ignorances?

# Conceptualisation Abstracts

## Trans-species Giving and the Cyborg Futures of the Non-human

**Author:** Elizabeth Demaray, Rutgers University

**Abstract:** New technologies now support interspecies communication and may enhance the function of non-human life forms. This presentation details my work designing cyborg technologies for the non-human. A cyborg is here identified as an organism that utilizes technology and whose abilities are greater than those of a non-technologically enabled member of its own species. These works also concern the idea of "trans-species giving," which asserts that the commonalities between life forms are such that we may be able to give other organisms a "hand up," notwithstanding our own cultural or species-specific assumptions.

Focusing on the issues encountered in creating species-specific artwork, this brief survey includes the Hand Up Project: Attempting to Meet the New Needs of Natural Life Forms, which creates shelters for land hermit crabs from synthetic materials; The InDaPlant Project: An Act of Trans-Species Giving, which fabricates robotic supports for potted plants; and PandoraBird: Identifying the Types of Music that May Be Favored by Our Avian Co-habitants, which uses computer vision to track and then play the musical preferences of local songbirds.

While inherently generative, these agent-based artworks also consider the aesthetics of adaptive behavior. To signal the emergent confluence in media art of "wet" biological processes and "dry" computational systems, the artist/theorist Roy Ascott has coined the term "moist media." Ascott sees this media as extending the sensorium of the self. In designing for the non-human, I aim to give struggling life forms a "hand up" while extending the sensorium of the self to the sensorial experiences of our companion species.

### Discussion questions:

1. What roles do culture- and species-specific assumptions play in addressing interspecies communication and design?
2. What other forms of technology for the non-human could or should be designed to support untaming the urban?
3. Human and non-human life forms are now being genetically engineered. How should this be viewed from the perspective of untaming the urban?

## **Praxis Stream aims:**

Amplifying more-than-human approaches to the urban environment. Exploring from your research concepts for practice that could facilitate more active/convivial engagement between humans and other species. To prompt discussion on how a range of knowledges might be co-opted to address the emergent possibilities and practical challenges of sharing our urban spaces with other species.

This is the second stream of the symposium to ground the alternate perspectives of the first conceptualisation stream into practical considerations and applications of Untaming the Urban. Exploring research concepts, demonstration or experimental projects and design tools to discuss how we bring/apply these concepts (many largely unpracticed or only being applied in experimental ways) and tools in/to urban planning, design and management practice.

## **Biodiversity in cities: Untaming the urban and finding the existing wild**

**Author:** Amy Hahs, Urban Ecology in Action

**Abstract:** Advances in communication and transportation technologies have helped propelled our shift towards an urban future. The increased complexity of urban land teleconnections associated with this change has repercussions for what it means to be 'urban'. Thus, our challenge is not only how to untame the urban, but also how to keep the wild "wild".

The rise in agrarian settlement was accompanied by a wave of domestication of plants and animals as we found the species that were best suited to co-habit those environments with us. We know that biodiversity in our urban landscapes play important roles in moderating local climates thereby providing us with healthier ecosystems to live in; contributing to our physical, mental and emotional health and wellbeing; representing our natural and cultural heritage and shaping our sense of place and identity. Yet we also know that our urban landscapes can be challenging places for biodiversity, and the extent of urban transformation plays a strong role in defining which species and ecosystems can co-exist with us in our cities and towns.

This presentation will provide examples of how plants and animals have evolved, adapted or coped with the pressures of living in an urban environment- strong evidence that there are natural ecological and evolutionary processes at play in our cities. It will also explore the extent to which these processes occur in "wild", "tamed" and "untamed" landscapes of our cities. Understanding how species respond to these different landscapes will provide important insights into where the "tamed" landscapes can be successfully "untamed", and where there are areas of "wildness" that are currently unrecognised.

## **Discussion Questions:**

1. What are the ecological and biodiversity characteristics of an "untamed" and a "wild" landscape?
2. If evolution and adaptation are an integral component of "untamed" or "wild" ecosystems, how can we work with our urban fabric to ensure that these processes are able to continue for the benefit of humans and nature?
3. With the transition to a predominantly "urban" world, does this constitute a new phase of domestication or is it potentially a new trajectory of "taming" species to co-habit our urban landscapes with us? Would knowing the answer to this question change the way we plan, design and manage cities?

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# Praxis Abstracts

## Novel Resources for Threatened Fauna in Urban Environments

**Authors:** Cristina Ramalho[1], Leonie Valentine[1], Luis Mata[2], Patricia Kennedy[3], and Richard Hobbs[1]

[1]School of Plant Biology, The University of Western Australia, Crawley 6009 WA, Australia

[2]School of Global, Urban and Social Studies, RMIT University, Melbourne 3000, Victoria, Australia

[3]Department of Fisheries and Wildlife and Eastern Oregon Agriculture and Natural Resource Program, Oregon State University, Union, Oregon US

**Abstract:** Urban areas present both challenges and opportunities for threatened fauna. Although urbanization is a major threatening process for most native wildlife, a growing number of species are able to persist in urban environments, utilizing novel resources provided by the changed biophysical settings to meet their resource requirements. We explore how threatened fauna in Australian cities utilize novel resources. In particular, we explore examples where novel resources are used 1) as analogue for native resources; and 2) as additional non-analogue resources that help to mediate the effects of habitat change. The Carnaby's black cockatoo (*Calyptorhynchus latirostris*) and the southern brown bandicoot (*Isodon obesulus*) are two examples of endangered species that utilise non-native plants as important food (introduced pine) and shelter (blackberry) resources, respectively. The golden sun-moth (*Synemon plana*) is another example of a critically endangered species that utilizes an invasive non-native plant (Chilean needle grass) as a supplementary food source in peri-urban areas where native grasslands have been cleared.

Conservation planning and management of threatened fauna should recognize the importance for species conservation (within cities and beyond their boundaries) of identified altered ecological interactions involving novel resources available in urban areas. Recognition of the importance of these resources requires an overall adjustment to the ecological stewardship approaches shared among multiple stakeholders, and ultimately needs to be incorporated in the management practices, and at urban planning and policy level. Yet, to tap into these potential opportunities for wildlife conservation, several challenging questions need to be addressed.

### Discussion questions:

1. How important are novel resources for threatened species? Can they fully replace native resources in urban areas, or is their use dependent on the availability of native habitat throughout the urban and peri-urban landscapes?
2. What are the circumstances where novel resources are likely to be most critically important (e.g., connectivity between important habitat patches)?
3. In what circumstances should novel resources be promoted (e.g., not removing blackberry or even plant them) instead of habitat restoration or creation/expansion?

## Messy Parks and Levitating Trees: managing habitat structures in urban landscapes

**Authors:** Karen Ikin[1] & Darren Le Roux[2]

[1] Fenner School of Environment and Society, The Australian National University

[2] Parks and Conservation Service, Environment Division, ACT Environment and Planning Directorate

**Abstract:** Urban landscapes are constructed spaces designed for people and present unique challenges for biodiversity conservation. Yet, they harbor an incredible diversity of wildlife and offer important opportunities for ecological integration and innovation. To resolve these two perspectives to achieve biodiverse urban environments, it is crucial to understand how different habitat features influence the urban ecosystem and to rethink conservation practice to create novel habitat.

First, our research explores how habitat features in urban landscapes influence bird diversity, both within residential areas and in adjacent protected areas. The types of birds found in urban areas range from species 'hanging on' in pockets of remnant natural habitat to species that can take advantage of the novel foraging and nesting habitat resources that cities can provide. We discuss how the habitat complexity, or "messiness", of urban parks and gardens, can substantially influence what birds occur. However, we also raise the difficulties in maintaining these messy spaces, due to trade-offs with public safety, amenity, and environmental and biological considerations.

Second, our research explores how to recreate a particularly important habitat structure for birds and other wildlife, large old trees. We discuss a unique restoration experiment currently being trialled in the ACT for the first time, which involves physically recreating vertical habitat structures for wildlife in a modified landscape context. The project seeks to mimic some of the keystone functions provided by mature trees, by installing two types of vertical structures: utility poles, and translocated dead trees. We describe the structural engineering and mechanical interventions involved in such a project and present preliminary biodiversity responses recorded at the structures.

Our research underscores the importance of implementing transdisciplinary approaches to natural resource management across varying spatial and temporal scales. Conservation practices in urban landscapes must ultimately balance socio-economic priorities with biodiversity conservation objectives, requiring a re-think of conventional land management practices.

### Discussion Questions:

1. Are urban-adapted or common species groups overlooked as important functional assemblages in cities?
2. Can strategic urban landscaping balance socio-economic and biodiversity benefits in current and future urban developments?
3. Are the costs associated with re-creating vertical habitat structures justified in light of projected declines in mature trees?

# Untaming the Urban

from post-anthropocentric design to urban ecologies

# Praxis Abstracts

## **Threatened species management in urban landscapes: the need for creative conservation**

**Presenter:** Kylie Soanes (Clean Air and Urban Landscapes Hub, National Environmental Science Programme, School of Ecosystem and Forest Sciences, The University of Melbourne)

**Project co-authors:** Pia Lentini, Caragh Threlfall, Sarah Bekessy, Richard Fuller, Georgia Garrard, Karen Ikin, Dave Kendal, Kate Lee, Luis Mata, Laura Mumaw, Cristina Ramalho, Ross Rowe, Danielle Shanahan, Leonie Valentine, Nicholas S Williams and Kirsten Parris.

**Abstract:** When thinking of places that are ideal for conserving threatened species, the word 'urban' rarely springs to mind. Urban habitats are often considered too small or too degraded to truly be valuable for conservation. However there's a growing push to better recognise the contribution of cities and towns to threatened species management, and to seek conservation gains through novel actions and engaged communities.

We investigated the recovery planning documents of 376 threatened species whose distributions overlap with 99 Australian cities and towns, and asked: How often is urbanization recognized as a threat? How often are urban areas targets for conservation? How can we use novel actions to conserve threatened species in cities and towns?

We found clear opportunities for conservation gains in urban spaces. Many of the listed species not only occurred within urban landscapes, but their distribution was entirely restricted within the boundaries of cities and towns. Further, 24 of the 'urban-occurring' species are listed as priority species under the Threatened Species Strategy. Interestingly, only about half of recovery planning documents identified urbanisation as a threatening process, and less than one-third described management options for urban areas.

Sharing urban habitats is a challenge – specific ecological requirements, conflicts with humans, and unsustainable development can thwart any chance of success. There is a clear need to develop and test novel, creative management actions that are tailor-made for cities and towns. I will present several case studies from our work to date that highlight novel opportunities (and challenges) for conserving threatened species in urban landscapes.

### **Discussion questions:**

1. How can we provide support and practical guidance to those wishing to use novel and creative conservation actions in cities?
2. What partnerships could increase collaboration, creativity, and effective policy for urban conservation?
3. What are potential challenges to a shared urban habitat, and how can they be overcome?

## **The Urban Beehive: Beekeeping and the sustainable city**

**Author:** Ferne Edwards, Trinity College Dublin

**Abstract:** The resurgence of urban beekeeping raises many pertinent and contentious issues about the politics of urban space, food production and biodiversity. The urban bee provides a thematic platform on which to explore human and animal relations, the governance of alternative food movements, and the potential re-design of urban space towards more resilient cities. I interpret 'untaming the urban' as a positive approach in which to break through urban/ rural and human/ animal dualisms to re-introduce animals within the city, to re-design city space, and to re-value amateur activities. I draw on perspectives from 'Untamed Urbanisms' (Allen, Lampis & Swilling 2016) to consider cities as sites of potential positive urban transformation where current strategies of urban development must be questioned to acknowledge and embrace grassroots perspectives towards urban justice, health and sustainability.'

I draw on qualitative interviews with urban beekeepers from Sydney and Melbourne to discuss:

Firstly, how through different approaches to beekeeping, new relationships are being established between bees and human beings that produce environmental, health, social, and economic outcomes. Here the practice of beekeeping draws on literature regarding values, an ethics of care, and pace and scale in alternative food networks and how such little-recognised amateur activities fit within the schema of the diverse economies framework.

Secondly, to explore issues of governance and values around beekeeping that can either create or alleviate tensions among beekeepers, governing bodies, and between species. This discussion introduces themes of grassroots mobilisation versus government regulation, and the debate around exotic versus endemic species to ask, what is now considered as 'natural' in cities?

Thirdly, to re-imagine the city through the lens of the honeybee – to draw on what features a bee-friendly city would have and how these aspects could be incorporated within urban design to encourage both more urban nature and a more resilient city. Themes drawn on here include the use of underutilised space, the introduction of new technologies, and designing the future city with threat of climate change, global food insecurity, and for Australian bees, the varroa mite.

### **Discussion questions:**

1. Would the audience like to add cross-disciplinary perspectives to the ethnographic data presented here?
2. How do people propose to push ahead sustainable transformation through the lens of bees towards the productive city in Australia? In terms of: policy, urban planning and design, and cultural / social change?
3. Are there any gaps in current literatures where a theorization of 'urban bees' could contribute?'

# Untaming the Urban

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## Conservation tools for sharing cities with nature

**Authors:** Georgia Garrard, Luis Mata & Sarah Bekessy  
Interdisciplinary Conservation Science Research Group  
School of Global, Urban and Social Studies  
RMIT University, Melbourne

**Abstract:** Cities are of critical importance for biodiversity conservation because they harbor threatened species and also because exposure to nature delivers a remarkable range of health and well being benefits to urban residents. However, cities can be hostile places for biodiversity, and new approaches to urban design and decision-making that promote the protection and creation of habitat and resources for native species are urgently needed. We present two new approaches for enhancing urban nature. The first is an ecologically-based biodiversity sensitive urban design protocol that addresses the key impacts of urbanization by explicitly linking measurable biodiversity outcomes to urban design and planning. The second aims to reverse defaunation and restore ecological functions and ecosystem services through reintroductions or ecological replacement of species into urban environments. Both approaches draw on conservation decision-making tools and concepts to deliver urban environments that contribute to the persistence of native species and ecosystems. Importantly, they aim for on-site biodiversity outcomes, ensuring that urban residents are exposed to and engage with nature and the benefits that it can deliver.

### Discussion questions:

1. Which species should we provide habitat and resources for in cities, and why?
2. How do we tackle potential conflicts between protecting indigenous species and utilizing or accepting novel biodiversity elements?
3. How should we balance the needs of human and non-human species when designing shared cities?

# Praxis Abstracts



**Biodiversity Sensitive Urban Design** - Creating urban environments that are good for people and good for nature

<https://icsrg.info/biodiversity-sensitive-urban-design/>

This research was undertaken by Dr Georgia Garrard and Associate Professor Sarah Bekessy at RMIT University with support from The Myer Foundation.

### **Imagination Stream aims:**

Visions for a post-anthropocentric urban future. Drawing out from your research ideas that challenge conventional human-centred approaches to urban design and city planning. To prompt discussions on how we can re-imagine our urban environment as a constructed ecology and a place of cross-species cohabitation.

Following on from the first broad Conceptualisation discussion, second grounded Praxis discussion, this last Imagination discussion broadens the discussion out again to draw out possible futures and possible ways of imagining propositions for Untaming the Urban. To explore and discuss fictional possibilities of what next, what could/should/ought to be and what might we want for our post-anthropocentric future.

### **Urban Ecology Renewal – re-wilding Sydney**

**Authors:** Linda Corkery[1], Paul Osmond[1], Natalie Pelleri[1], Sara Wilkinson[2]

[1]Faculty of Built Environment, University of New South Wales

[2]Faculty of Design Architecture and Building, University of Technology Sydney

**Abstract:** Green shoots are flourishing in the grey vastness of the city. They have always been there, but predictably, we take this for granted. Nowadays it is called green infrastructure, although most know it by more specific names – street trees, parks and gardens, green roofs and walls, even weedscapes... It delivers a suite of ecosystem services notionally (but not in reality) 'free of charge'.

Urban growth is changing the shape and composition of Australian cities, putting increasing pressure on biodiversity, water resources, human health and well-being. Based on the current trajectory of urban intensification and expansion, further losses are inevitable in the number and diversity of species and habitats, the 'nuts and bolts' of the green infrastructure which makes our cities liveable. An un-taming of the urban – a re-wilding of the city – is the anchor for the reform required at multiple levels to transform our urban spaces to reintegrate urban ecology and capture the value of ecosystem services.

Conservation does not stand outside economic and societal contexts, hence a critical element of this transformation involves seeing nature as dynamic provider of multiple benefits. Conventional anthropocentric models are necessary, but insufficient to articulate this new paradigm, which requires a more active and convivial cross-species engagement in our urban settlements.

This research summarises and reflects on findings from a multi-disciplinary (science, planning, design, construction), multi-scale (spatial and temporal) and purposefully disruptive project commissioned by the New South Wales Environmental Trust to explore and imagine the future of urban ecology. The research highlights the gaps and opportunities to improve urban ecology outcomes in Greater Sydney, providing an evidence-based case and prioritised recommendations for embedding urban ecology into decision making, from individual to metropolitan scale and within government policy and planning frameworks and a way to transition to a more balanced, post anthropocentric future.

### **Discussion Questions:**

How do we maintain – and maximise – ecosystem services in an exponentially urbanising, globalising and densifying world?

What does a post-anthropocentric city look like?

What is a "sustainable landscape"?

# Untaming the Urban

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## Greening Up: Making Room for Wildlife in Cities

**Presenter:** Katherine Berthon, Department of Biological Sciences, Macquarie University

**Project co-authors:** Peter Davies, David Nipperess, Matthew Bulbert

**Abstract:** Increasing concentration of human populations in cities has led to the creation of human-centric ('tamed') living environments. Historically, these environments have been designed either 1) to intentionally foster an exclusionary ecosystem that segregates humans from 'untameable' species, or 2) without regard for such segregating effects. The traditional focus of urban planning on efficient use of limited spatial resources has neglected co-habitation aspects. Urban development plans traditionally view land use decisions as an either/or trade-off between wildlife habitation and human use. Recently, there has been a move towards 'green infrastructure,' which involves co-mingling of human-centric design with natural architectural principles, and has allowed for a more deliberate reintroduction of 'wilderness' into the city, while promoting 'mixed use' benefits.

My work has focused on habitat use of invertebrates on urban infrastructure, and adds to a growing body of evidence which shows that the trade-off between human and non-human use of urban spaces represents a false dichotomy. Specifically, I have shown that vegetated rooftops have superior habitat value compared to bare roofs, and that large (>490 m<sup>2</sup>), structurally diverse, and well-connected green roofs are the most effective for increasing invertebrate diversity. Comparisons of invertebrate utilisation of green infrastructure and traditional building approaches show that the kind of urban infrastructure we build will determine what kind and how much wildlife co-habitation we promote. Presence of wildlife in cities has been largely incidental, with many 'urban adapters' often considered pests or weeds. Now is the time to begin to imagine a city which not only allows for wildlife to be present in cities, but is specifically designed to generate a more deliberately constructed ecology containing a desirable population of co-habiting species. In particular, green roofs are an opportunity to utilise otherwise wasted space for the re-inclusion of wildlife in cities.

### Discussion Questions:

1. What kind of species do we actively want to co-habit with? Why?
2. What are the co-benefits, problems and opportunities of co-habiting with wild versus tame animals?
3. How do we build to promote co-habitation with desirable species (is greening enough)?

# Imagination Abstracts

## Design Guidelines for Urban Non-Humans

**Authors:** Paul Downton, architect, writer & urban ecologist; Paul Downton Architects, Carrum, Vic

David Jones, landscape architect & academic; School of Architecture & Built Environment, Deakin University

**Abstract:** This presentation considers the role of design guidelines in shaping our cities and how they might be used as both a conceptual and practical framework for creating post-anthropocentric urban futures.

Urban design guidelines have historically reflected the visual predilections of the architectural and design community and they have been drafted solely for humans. This is despite so-called 'wildlife-friendly' guidelines, for example, that have been developed for reducing bird mortality from reflective glass façades that are really drafted to save clean-up costs rather than improve the avian environment. But there is no reason why they could not be re-imagined for the benefit of urban non-humans in a constructed ecology design as a place of cross-species co-habitation.

This presentation will explore the potential for cities to evolve in ways that challenge the historical model of human-centred (object-fixated and visually pre-occupied) urbanism with illustrated examples drawn from speculative research into post-anthropocentric built form. Part of the presentation will analyse how a functional and viable urban future might be achieved by going beyond ideas of 'nature friendly' buildings and infrastructure elements (such as bat boxes, green roofs and dovecotes), and potentially beyond biophilic cities, towards vibrant, visionary biomes that prioritise the ecologically healthy interaction of all species, both non-human and human, in which nature has its own intrinsic worth and success or compliance is measured by the use of all the senses from olfactory to the visual and acoustic.

### Discussion Questions:

1. There is an International Ecocity Framework and Standards initiative that purports to 'provide an innovative vision for an ecologically-restorative human civilisation as well as a practical methodology for assessing and guiding progress towards the goal' (<http://www.ecocitystandards.org/brochure/>) – are these appropriate and holistically relevant 'guidelines'?
2. At what level of government do 'Design Guidelines for Urban Non-Humans' get adopted and implemented?
3. Who should write these guidelines?

# Untaming the Urban

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**New natures: Landscape architecture, ecological and urban design from the scale of the street to the region**

**Author:** Simon Kilbane, University of Technology Sydney

**Abstract:** While Australia is not alone in facing global problems such as population growth, urbanisation, biodiversity loss and climate change, this ancient continent has witnessed the greatest ecological destruction over the shortest time period. The lack of understanding and the poor treatment of a fragile landscape and its remarkable biota continues to operate most visibly to this day in the nation's cities and urban regions. Here citizens of increasing number are often, yet unknowingly implicit in the destruction of both resident urban and remote biodiversity and landscapes. Their seeming ambivalence to the fragility and ecological uniqueness of Australia's biodiversity often framed by notions of 'nature' and 'wilderness' as geographically distant and separate from self.

Globally and locally, the challenge to design environments to host species other than just our own has come to the fore in the age of the Anthropocene. While 'novel' ecosystem concepts are increasingly common, these typically describe or recognise existing landscapes and species assemblages, rather than be 'designed' ecosystems. Similarly, 're-wilding' approaches, popular at large scales, are fraught by attempts to replicate prior ecological benchmark conditions in an increasingly complex world marked by a changing climate. While deep ecology encouraged us to think of the intrinsic value of biodiversity, through the lens of ecosystem services we now reconsider ideas of 'nature' and are – perhaps – open to the engineering or design of ecosystems. But is this really possible or are we simply deceiving ourselves into thinking that we can mediate at the fraught confluence between our own species and the other 99.99% that we share the planet with?

This presentation explores a range of old and new tools and methods that could test the potential to design such futures. This takes place through a select review of projects and reflections based upon more than 15 years of teaching, research and practice that explores the nexus between landscape architecture, ecological and urban design from the scale of the street to the region. The landscape architectural method, involving stages of: research and consultation; mapping and on-site exploration; conceptual ideation; and detailed design can help to articulate a potential rapprochement between 'nature' and 'culture, helping to re-imagine our urban environment in a post-anthropocentric world. The design approach sits in contrast with science – which does not operate in a speculative manner across uncertain futures – and fits within the disciplines 'stewardship' remit. This presentation argues that while policy, public support and recognition for ecological values within cities has never been stronger, Australia's ambitious urban infill targets and an increasingly contested urban territory necessitates the exploration of creative ways such as these to consider the 'wild' within our cities. This is relevant not only to post-modern citizens who seek authenticity and healthy and engaging urban environments, but also holds promise for the planet's future.

# Imagination Abstracts

**Discussion Questions:**

1. Novel ecosystem theory: should we worry?
2. Heuristic principles versus design: do rules of thumb exist and do we need design?
3. What tools and methods could help us to (really) practice notions of stewardship?

**Into the Wild**

**Authors:** Wendy Steele (RMIT), Ilan Wiesel (Uni of Melbourne), Cecily Maller (RMIT)

**Abstract:** The urban wilds are largely imagined outside the sphere of human power, interests and politics, despite attempts to breakdown and transcend the divide between the human and non-human. As Bruno Latour (1993) notes the strict ontological divide between nature and culture is a defining and enduring marker of modernity that we need to transcend. This presentation considers how we can challenge conventional human centered approaches to urban policy, design and planning. We accept Latour's argument that the non-human is currently assigned to an ambiguous position within our human-centered urban realm, but focus on how this might be redressed through a critical research agenda. This involves: transformational mapping of the possibilities for translation and creation; a diagrammatic of the relational forces that are in play as effective emergences; and sketching what new assemblages and potentialities might be able to emerge (Deleuze and Guattari 1987). We draw on examples from our own work which includes a focus on elemental matter such as earth, air, fire, wind and water; material geographies and socio-technical studies (STS); and the different spatial and temporal dynamics of human/non-human relations in the city (e.g. time, ageing). At the heart of this critical agenda is finding creative ways to re-imagine our urban environment as a hybrid: a lived collective of humans and non-humans in the city.

**Discussion questions:**

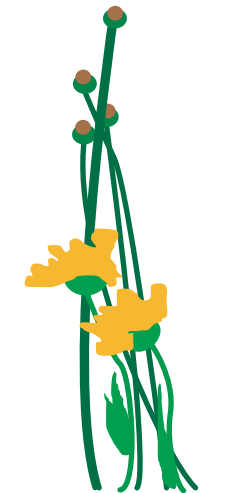
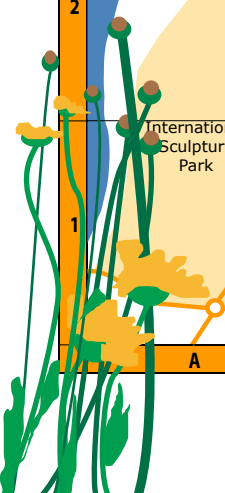
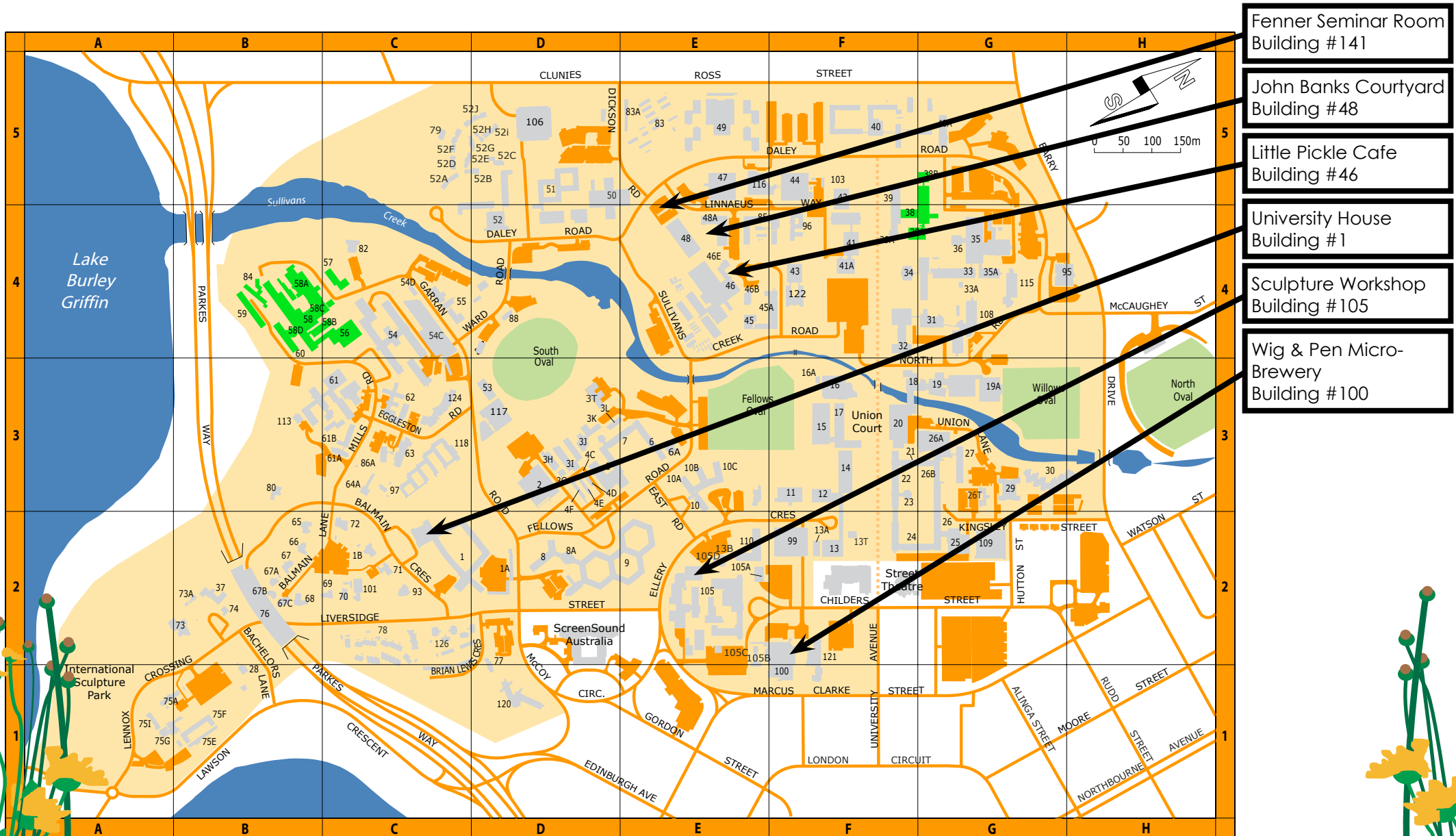
1. Where is the wild in the city?
2. Can humans find better ways to embrace the wild in urban habitats?
3. Beyond bifurcation, what does the wild city actually mean in practice?



# Untaming the Urban

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# Venues



# Untaming the Urban

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# Participation

## Symposium Participants

Aline Santos

Amy Hahs\*

Andrew MacKenzie

Anke Maria Hoefler

Cristina Ramalho\*

Darren Le Roux\*

Georgia Garrard\*

Elizabeth Adamczyk

Elizabeth Demaray\*

Eva Culek

Ferne Edwards\*

Jeroen van der Heijden

John Harris

John Schooneveldt

Joyce Hwang

Karen Ikin\*

Katherine Berthon\*

Kathy Eyels

Kay Henderson

Kylie Soanes\*

Lisa De Kleyn

Lyn Goldsworthy

Micheal Norris

Michele Smith

Milica Muminovic\*

Mitchell Whitelaw\*

Natalie Pelleri\*

Ned Doddington

Paul Downton\*

Rebecca Stephens

Sarah Robertson

Saul Cunningham

Simon Kilbane\*

Stanislav Roudavski\*

Stephen Barras\*

Steve Dovers

Susan Boden\*

Terry Henderson

Tom Gray

Viveka Turnbull Hocking

Wendy Steele\*

Xuemei Bai

\*Presenters

**The broad aim:** of the symposium is for people to present relevant research and share what they know for discussion. The symposium discussion will focus on developing ideas on what could be - ie. re-imagining how we design our urban environments for considering a larger ecological context and more active engagement with other species. The book chapters will then be developed out of this discussion post-symposium.

### Presentation Structure:

5-10mins present your work,

5mins propose 3 questions,

15mins open up for discussion

**Discussion:** The discussion is intended to explore stream concepts (ie. conceptualisation, praxis and imagination), consider significant threads for developing the book and assist with possible directions for presenters book chapter.

**Book Chapter:** The chapter will be developed post-symposium based on the discussions, conversations and reflections on the symposium. We encourage participants to make connections and consider developing further possible collaborations or connections with other participants during the symposium to assist with the post-symposium development of your book chapter.

This Symposium is:

Hosted by the **Fenner School of Environment and Society, ANU**  
<http://fennerschool.anu.edu.au/>

An initiative of the **ANU Urban Network**

The ANU Urban Network seeks to contribute to the development of ANU urban scholarship, to facilitate excellence in urban research nationally and internationally, and to develop a clear leadership position in contributing to urban policy formulation and debate.

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