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Imagining Otherwise



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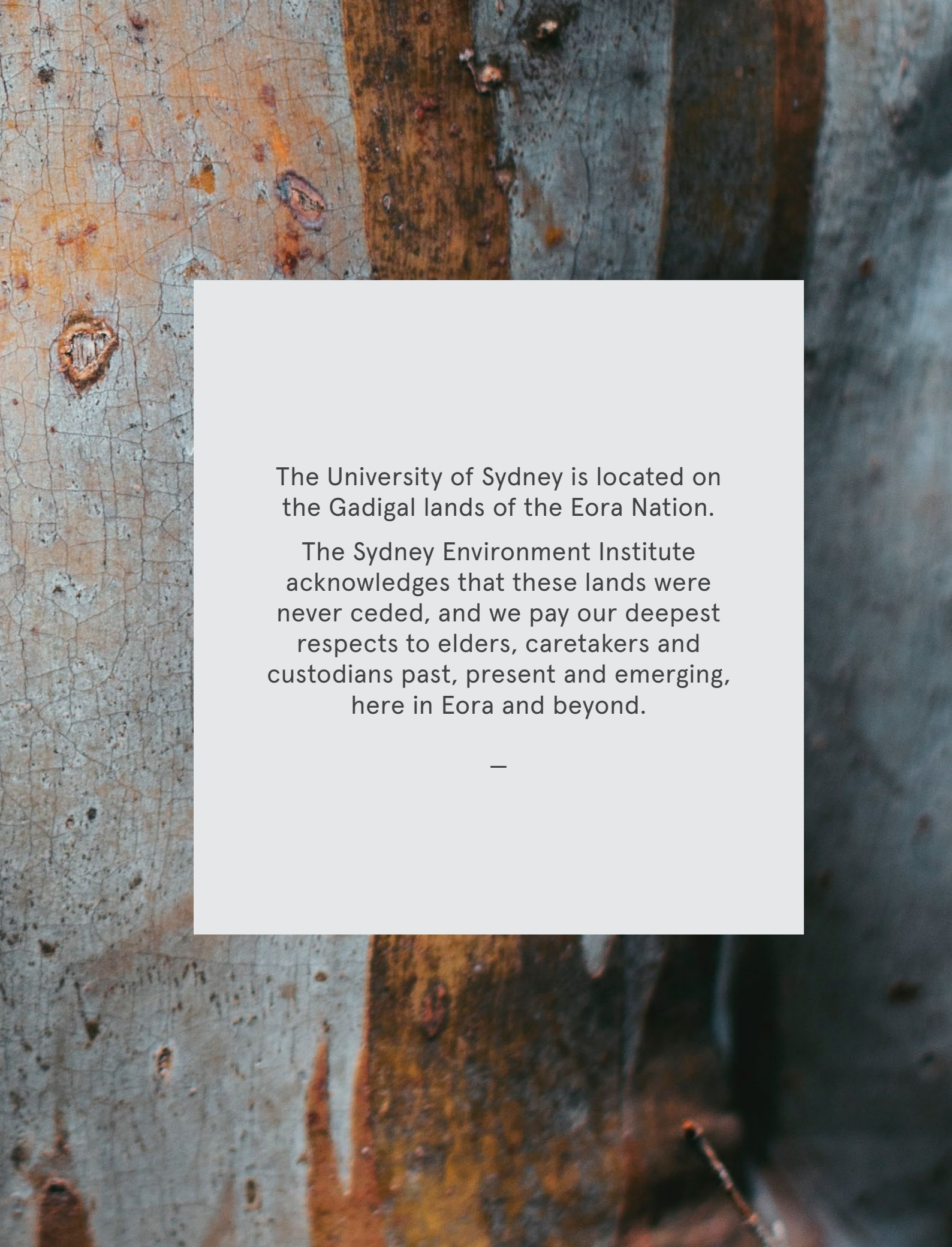
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A close-up photograph of tree bark, showing various textures, colors (brown, grey, orange), and small holes. A white rectangular box is overlaid on the right side of the image, containing text.

The University of Sydney is located on
the Gadigal lands of the Eora Nation.

The Sydney Environment Institute
acknowledges that these lands were
never ceded, and we pay our deepest
respects to elders, caretakers and
custodians past, present and emerging,
here in Eora and beyond.

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Cover photo from *Requiem* by Christopher Wright. Previous page by Jade Stephens via Unsplash. Opposite: Paddington Reservoir by Jirayu Phaethongkham via Shutterstock ID-1424826764.







“There’s really no such thing as the ‘voiceless’. There are only the deliberately silenced, or the preferably unheard.”

“Another world is possible, she’s on her way. Maybe many of us won’t be here to greet her, but on a quiet day, if I listen very carefully, I can hear her breathing.”

— Arundhati Roy

Requiem for a Black Summer: Julie Vulcan and Michelle St Anne on witnessing, care and transformation

Artists Julie Vulcan and Michelle St Anne both contributed immersive, experiential performance works as part of the [Requiem exhibition at Sydney Festival](#), interrogating the wake of the black summer bushfires.

While their practices and methodologies diverge, Michelle and Julie's pieces reflected deeply personal experiences, both centred in the home. They challenged the notion of home as mere refuge, instead curating works that confront the kinds of threats that walls cannot protect us against – the scale of environmental injustices; the subtle nuances of loss and grief that transcend place; or the domestic violences that manifest within.

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By Liberty Lawson, Content Editor, Sydney Environment Institute



Here, we speak with Julie about her work *Rescript*, a ritual for living and ongoing connection, which was presented on Sunday, January 17 2021.

Liberty: Your work situates the audience as witness, not to the spectacle of violence, but to the aftermath. What is the significance of these cumulative acts of witnessing, hearing, documenting and reconciling with consequences?

Julie: It is hard not to be overwhelmed by events unfolding in our worlds and in response know how to be effective or make sense of it. This is why the starting points for my work often grapple with such events while the work itself is the process of distillation to arrive at a kind of charged minimal place. I see this process as research, where you pose a question and you approach it from many different angles until you find not so much the answer but the resonance.

Part of the journey for me is to open up a space beyond the main event (eg wildfire, earthquake, civil war, detention, extinction) and to find a place where I can invite people to be with me to focus for a long slow moment on some aspect of the after-effects. The resulting gestures are designed to be open in such a way they embrace an audience rather than alienate them. I suppose I am engaging in a remembering, one that reminds us the hard or significant work is often after the main event itself. This work is often messy, mundane, gradual, sometimes unknown and feeds into my concerns for multispecies care and ongoingness.

L: How do you approach the delicate balance between power, truth and care in illuminating these often-overlooked shadows and untold stories? Do you construct your work from your own perspective, from the position of the audience, or beyond?

J: I approach my work with a delicate tension. It is one that attempts to balance not only my personal investment with the investment of the audience as witness but also with the verity of the materials present. So for example in my work *I Stand In*, an audience member volunteers to “stand in” for an anonymous body to undergo a stylised corpse washing ritual in a space energetically held by the audience. At all times I am the conduit and it is the stand-in body

that is pivotal. At the same time the material body of an audience member becomes witness and witnessed not only in the action of the moment but in the accumulation of imprinted shrouds within the space. In *Bloodstock*, another more personal work linked to the death of my father, blood types and the anonymous blood donor become the material that allows me to interrogate blood ties, points of difference, and the invisible borders we construct.

L: How have you experienced working with memories, often of the deeply personal kind, and transforming them into a shared experience? How do you reconcile with the process of recalling and recreating something ephemeral, externalising it, materialising it?

J: Working with memory or experience is an energy I draw on to personally focus while I am in a work. However it is important to state it is not the sole purpose of the work (for all the reasons I have stated previously), it is rather the heartbeat for greater concerns.

Rescript, the work I will be presenting within Requiem, is a work coming from an intensely personal experience. I can’t get away from the fact the actual material I am working with is part of the home I share, a home that was transformed when wildfire swept through it in December 2019. In the performative context the personal nature of the work attempts to land inside the materiality of the ash in order to ripple through an inbetween space – the temporary and ephemeral installation.

The intention is to gather the material elements, the artist-as-conduit, and the audience-as-witness into a shared space in order to provide an opportunity to consider what home is. It is a moment to acknowledge home goes beyond the walls of a human house. Where there is one home there is many in all shapes, sizes, and configurations and each of these multispecies abodes add to the richness.

By working with the ash, which is the residual material of multispecies bodies and their homes, I am bringing their presence into the installation to remind us they are still here (albeit transformed) engaged in the necessary ongoing vital processes of complex world building for many, as must we.

Julie Vulcan is an interdisciplinary artist, researcher and writer. Her work spanning performance, installation, and digital media has been presented nationally and internationally. Her writing has appeared in a Power publication, arts journals and independent publications alongside flash fictions for social media platforms. A PhD candidate at the University of Western Sydney her current research draws on feminist, new materialist and environmental humanities discourse to interrogate notions of the dark and inform speculative imaginings for future worlds here and now. Julie lives and works on Gundungurra and Tharawal country South West of Sydney.

Opposite: Top image by Alex Talamoby of Julie in *Rescript*, 2021. Bottom image by Julie Vulcan at her home.



“I found my world getting larger, or rather deeper, by paying attention to its details. The squiggly lines of snails left on fences, the choreography of a gum leaf coming to rest on the lawn, the sound of the butcher bird song in concert with magpies and minor birds.”

Michelle St Anne

Michelle St Anne speaks about her work ‘Myosotis’ – her requiem, which was presented on Sunday 24 January at Paddington Reservoir.

My witness comes from the depths of me. At times a child, a woman, a child becoming a woman with my audience straddling the line of co-witness, co-author and co-inhabitor. With this relationship I play with time, particularly the elongation of time or as I call it amplified time. In doing this, I envelop the audience in details that may seem inconsequential but upon reflection, document series of events, memory and incidents. I’m more interested in the legacies of violence as a way of recognising violence that lives in bodies, memories and the imagination long after they have been perpetrated. I see this work as a gift of care. A gift to my colleague Danielle Celermajer. A showing of solidarity that I don’t know precisely her grief but I understand what it is to be present to that grief. And so this is how I come to this work – through grief. That all-encompassing layer of truth and mis-truths that challenge our body, mind and sense of knowing or understanding. That leads us into the circularity of remembering, re-remembering and misremembering.

Myosotis is the botanical name for ‘forget-me-nots’. And so often we work towards getting through grief, we entertain the notion that grief is wicked and that it will eventually leave. I prefer to argue that grief takes up residence and we live with her, return her when we seek wisdom. That she is place when *Time lived, without its flow*. I take this from the title of a beautiful essay of grief and time by poet and philosopher, Denise Riley. Grief numbs us to aid our sense making. “We entertain the notion that grief is wicked and that it will eventually leave. I prefer to argue that grief takes up residence and we live with her, return her when we seek wisdom.”

Myosotis asks me to return to my childhood faith of Catholicism, Accessing the visceral nature of kneeling at a pew which Charlotte Wood aptly

describes in *her essay*, “the ledge of the pew, where prayer books and hymnals and rosary beads rested, was just about shoulder height for a toddler wobbling to stand – so it was only natural to reach out and grasp hold of the ledge, put my mouth to its sweet, vinegary, golden wood, and suck”.

This strong connection to that kind of place echoes through the cathedral arches of the Paddington Reservoir. A built environment that holds you close in her belly. Dissonant sounds of traffic and care flights hover overhead and yet as evident in Julie Vulcan’s performance of ‘Rescript’ the space allows you to sit quietly to contemplate and gaze at images and movements that beat in and out as a series of visual amplification. The beauty and quiet influence of Vulcan’s work is her elongation of time that allows you to see the small in the vacuous. The unseen in the seen. To make sense of what she returns to with her palette of ash, muslin, archways and her distinct use of red. What is left are those images burnt into my subconscious that I will now recall on my visits back to the Reservoir. She has left behind a legacy with spatters of ash on the concrete floor that I pick up and weave into my own work. Where ash becomes the charcoal on my performers hands. Her floor pattern I extend between the two chambers and her seven arches become the seven performers.

This work for small ensemble features prose from Danielle Celermajer’s upcoming book *Summertime* recorded onto tapes and spoken live by the author herself about the moment before grief. Before the mind becomes one with the body. The moments leading up to the painful discovery that are imbued with a heightened sense of observation often mundane but together culminate a sense of dread. That precipice between the visceral sense of knowing ‘this is bad’ in our belly to the fractured-ness of discovery. Where the mind competes with the body’s sense of knowing through the sounds,

Michelle St Anne is a multidisciplinary theatrical artist with over twenty years of experience. Her extensive body of work is centred upon themes of violence, complicity and women’s bodies. Her stories are meted out through the elongation of time, using object & light; film & movement; body, sound and space. Building a reputation as a site-responsive artist whose immersive and intimate works eschew traditional narrative-driven performance, Michelle’s work is known for its unique, and often profound, audience engagement. She has collaborated with the acclaimed musical mavericks Ensemble Offspring, Bass Liberation Orchestra and Ensemble Onsemble. She is the co-founder and artistic director of The Living Room Theatre which celebrated 20 years in 2020.

Photo opposite by Christopher Wright of Imogen Cranna performing in ‘Myosotis’ – her requiem, in January 2021. Headpiece by Rosie Boylan.



taste, and strange lack of smell. Certain senses submerged in order to make sense.

During this past year we have found ourselves trapped within the small confines of our homes, balconies and yards. Time took on a more *laissez-faire* approach and as we learned to sit and wait the boundaries of our worlds might have been smaller but what became apparent was I found my world getting larger, or rather deeper, by paying attention to its details. The squiggly lines of snails left on fences, the choreography of a gum leaf coming to rest on the lawn, the sound of the butcher bird song in concert with magpies and minor birds.

These fragments of observation brought me to think about these same boundaries when we are grieving. My Catholic roots give me a connection to 'being' and those rituals help me shroud this new work in the layers of grief that is resistant to the flows of time. To push us into the 'letting

go' of that fine thread on being present in the materiality of this world. That allows us to imagine the 'otherside' beyond the scriptures and hymnals but a world that culminates a place of perfection.

Myosotis isn't going to tell you anything. There is nothing new about 'thinking' here. I hope it's a work that engages your attention through sound as amplified time. It just simply invites you to sit in waves of sound to exorcise pain. The repetition of four double basses provide a platform for reflecting, considering and mourning. The reoccurring offertory procession by women adorned in black – a nod to the Nonna's of my youth – a latch to invite deeper contemplation. We are but memories and memories are of intense feelings.

Myosotis is a care package to a friend.
To find solidarity in our bereavement.
—

Grief, Mourning, Hope: Reflections on Danielle Celermajer's *Summertime*

A year after the ash settled from Australia's Black Summer, scholars from University of Edinburgh Centre for Ethics and Critical Thought reflect on the heart-wrenching but hopeful elegy *Summertime: Reflections on a Vanishing Future*, by SEI Deputy Director Danielle Celermajer.

By Krithika Srinivasan, Elizabeth Bomberg, Niamh Moore
& Elizabeth Cripps, CRITIQUE: Centre for Ethics and Critical
Thought, University of Edinburgh

Krithika Srinivasan — Senior Lecturer in Human Geography, University of Edinburgh:

Cognitive and visceral knowing about our condition of brokenness and injury (to use Dany's words) may come together in some of us. However, the social structures, the cultures, that are we are embedded in have a momentum of their own, a momentum that is shaped by other kinds of knowing, other narratives, that are more palatable in the here and now. I don't think we can overcome that momentum. I don't believe that we, humankind, have the capacity to reengineer our societies and change directions. It also seems to me that to believe that we can do this, that we can retain life as we know it, as it supports us, is yet another articulation of the exceptionalist myths that have created our current condition of brokenness. Life as we know it is going to change, and other forms of life, such as perhaps SARS-COVID 2, will replace us and many of our earthly cohabitants. Nonetheless, this doesn't mean that I am freed of the need and obligation to act – to act to make life more bearable for others.

Life itself is changing, but meanwhile, there are *lives* that are affected, that are suffering. There is more than enough for each and every one of us to do to make these existing lives less unbearable – by drastically reducing our footprints on human and nonhuman others, and by actively intervening, much like Dany is doing, to lessen the pain and injury of being in the world as it is now. We cannot change the world, but we can make a difference to individual life-worlds and death-worlds, and in doing so, ease the weight we carry for being as we are in these times.

Elizabeth Bomberg — Professor of Politics, University of Edinburgh:

Grief, mourning, hope. On one hand this book is a moving elegy for a loved one, a lost one. But not limited to one friend, group or even species. It's an elegy for the earth and all that lives and dies upon it. Powerful as were the passages

of destruction and grief, they were made all the more powerful by their juxtaposition to hope. Hope can inspire whereas despair can immobilise. Yet Celemajer's relationship to hope is decidedly ambivalent.

Hope emerges but not explicitly. Instead a more subtle, diffuse hope appears: First, hope is embedded in the everyday rather than the dramatic– signs of hope appear when she observes the quotidian, the routines and cycles of nature, however disrupted. Hope is manifest through her stories and storytelling. Her nature writing is rich and evocative. Each of her nature stories (lyrebirds, ducks, pigs) were infused with hope. Each time the reader is drawn in to a story of hope – but then smacked with a sting at the end (will they return? will they survive?). And then one sees – these are cautionary tales, a warning that hope can breed complacency, especially if hope is something we expect to come to us rather than create ourselves.

Hope cannot be something we wait for, it's something we work for. This isn't a 'How To' book, but it does make clear that words, stories, collaboration are a big part of that action. In *Summertime* her words resonate, spurring us to think, question and act.

Niamh Moore — Senior Lecturer and Chancellor's Fellow in Sociology, University of Edinburgh:

I don't think I am ever going to forget Katy and Jimmy, the compelling characters we are introduced to in the early pages of *Summertime*. This book is a powerful ecofeminist memoir of what it means to make kin when the kin are not all human, and what it means to live these relationships in what seem impossible, unimaginable, but resolutely real times.

Summertime offers a practical account of what it means to live and die, and live with dying, together, during the Black Summer of 2019–2020. Dany Celemajer weaves between introducing

Summertime by SEI Deputy Director Danielle Celemajer is [available now through Penguin Australia](#).

A recording of this event, part of CRITIQUE's Virtual Author Meets Critic series, can be viewed on the [CRITIQUE website](#).

us to her extensive multi-species kin, while also holding in view the unbearable reality of the 3 billion animals who likely died in the fires. The book evokes anew the kinds of concerns which Terry Tempest Williams has long written about from *Refuge: An Unnatural History of Family and Place*, to *Erosion: Essays of Undoing*, and beyond. This is a story of grief and loss and hope, where hope is not a passive wishing for an impossible future, but rather, to echo Joan Haran (2010), *Summertime* is ‘redefining hope as praxis’. Hope appears as a more immediate, active and engaged daily practice of care, a kind of care which in the past would have produced a different future, a different now.

Hope appears as a more immediate, active and engaged daily practice of care, a kind of care which in the past would have produced a different future, a different now.” In difficult times, *Summertime* offers us companionship, and stories of how to do companionship. Between stories of Katy and Jimmy, Ivana the duck, Isaac the tree, and others, the book traces what is possible in the face of impending fires, which is to insist on the daily work of caring, as best we can, for our multispecies kin.

Elizabeth Cripps – Senior Lecturer in Political Theory at the University of Edinburgh and Associate Director of CRITIQUE: Centre for Ethics and Critical Thought:

Just occasionally, a work of art takes something we have thought about, intellectualised, debated at endless length, and hurls it back at us in painful, unavoidable reality. *Summertime*, for me, does just that. I read it in one sitting, absorbed as by a novel. I was moved almost to tears. Afterwards, I took its moral insights and reflected on them. Or tried to.

We draw so many lines as philosophers, armed with our thought experiments, the privilege of detachment: human versus non-human, sentient versus non-sentient, individual animals versus species or ecosystems, ‘wild’ versus domesticated, human-caused harm versus ‘natural’ harm. But the reality is not one of neat divides: it is one of decisions made under agonising pressure, of irreducible messiness.

What is flourishing?
Philosophers have lately come to appreciate what more recent cognitive science can tell us: pain and pleasure are not the ‘be all and end all’ of non-human well-being. In *Summertime*, this is made stark reality. We empathise, but not only with Celermajer and her partner, in their searing grief. We are made to understand what it must have been like for Katy, afraid and alone, dying a

horrible death. We witness Jimmy’s trauma, his sophisticated grief. Katy and Jimmy, who are pigs, are also individuals. They have their own rich and meaningful lives to live – or to lose.

Flourishing in context

In some ways, this pushes our normative focus onto the individual. But the reader is also aware of a vast context: innumerable deaths through wildfires, uncountable millions tortured within the meat industry. Each of those animals has, presumably, the same scope for suffering as Katy, for grief as Jimmy. We reflect on that (how can we not?) and the scale of injustice is mind-blowing.

Even as we relate to individual animals, we are pushed away from straightforward expansions of our models of justice: those which include individual sentient non-humans, but only them. Celermajer reminds us that animals flourish only within a vibrant ecological whole. She does this without over-theorising, with beautiful use of language, with real beings and real histories. I loved the phrase, ‘the generosity of trees’; I was struck by the contrast between Celermajer’s searing grief for Katy and her more measured reaction when her duck, Ivan, was killed by a predator. A loss, yes, but also a part of the ‘natural’ way of thing. Katy’s death, for the woman who loved her, was an injustice in a way that Ivan’s wasn’t.

Justice as non-interference?

One recent suggestion, in the philosophical debate, is that justice requires collective non-interference towards wild animals (‘do no harm’), but positive obligations to domesticated non-humans. Reading *Summertime* adds nuance to this: the experience of the two bereavements as qualitatively different; the recognition of specific duties to those animals already made dependent. But it also challenges the very distinctions on which this model relies.

For when humans cause climate change, climate change worsens fires, and fires devastate tens of thousands of miles of bush, forest and park, what exactly is ‘wild’? Is there any such thing as a natural disaster? If non-humans flourish as individuals but their claims to justice depend on the interests of the systems within which they thrive, how must we understand justice to humans? Would the process of grief itself be different, as it was for Celermajer, if Katy and Ivan had been humans? Should it be?

These are hard questions: questions we find easier to evade. But, in a world on fire, evasion is no longer an option.

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Image by Logan Weaver via Unsplash

The background image is a collage of climate protest signs. Visible signs include: 'FUTURE' (partially visible), 'DON'T', 'EVERY ACTION', 'AS AN OPPOSITE', 'SAVE', 'PLANET', 'A!', 'WHEN WILL THAT YOU', 'STOP SIMPING for TRUMP', 'GAS IS BAD', 'THE FUTURE SO ARE WE', 'GREEN', 'THINK OF YOUR CHILDREN', 'KIDS DESERVE CLEAN ENERGY FUTURE', 'CLIMATE ACTION IS UNION BUSINESS', 'HERE IS NO PLANET B', 'THIS IS NOT', 'FUND', 'OUR', 'USE NOT', 'GAS SCOMO', 'IS TOO', 'ACT BEF', 'TOO'.

Anxiety, Transformation and Action: Learning to Live with Climate Change

SEI Postdoctoral Fellow Blanche Verlie's new book considers the pressing issue of climate anxiety and its possible implications.

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By Blanche Verlie

Postdoctoral Fellow, Sydney Environment Institute

A challenge in acquiring weekly knowledge of climate change has been to keep walking the scary line of learning. Week to week there is always a moment where I am filled with sadness at how I, who am so young, can feel so passionate about a situation seemingly moving backwards. What gets me the most is that the societies and the people that contribute most to climate change are the ones that will be least affected. What happened to karma? That just makes me so angry. In fact we are the ones who cause most of these issues and for them to be faced with the consequences?

I've been crying myself to sleep a lot lately. And crying at random times too. It's not as though I watch a video about climate change, and I cry during it. I mean sometimes that happens. It's more like, something little happens, like my toast burns, and I have an existential breakdown because I think it's a metaphor for how the world is burning because we aren't paying attention.

I found myself dry retching in the shower for over an hour one evening. The contractions of my stomach muscles, sense of my throat exploding, and my whole body convulsing, felt like I was trying to spew up some kind of demon, a wretchedness, a loneliness and desperation, a sense of loss for all that could have been but probably won't, for that which is but will no longer be.

It is such an emotional challenge to deal with, especially when you accept the fact that you and the society we live in today are to blame.

As these quotations demonstrate, my undergraduate students – and I – are

deeply distressed about climate change, as are many people around the world, young people especially.

Yet our capacity to feel is rarely acknowledged as a legitimate way of knowing climate change. Public and academic approaches to human-climate relations still tend to normalise and advocate scientific modes of climate knowledge, which promote mental comprehension of statistics and graphs through disembodied abstraction. In Australia and other places where climate action has been stymied by systemic and institutionalised denial, activists (of all sorts) have worked to firm up the borders and reputation of science, and distinguish it from ideological, irrational, and emotional 'post-truth' regimes. However, positioning climate change as a phenomenon to be known primarily through science has led to approaches to public engagement that are highly disengaging, as well as ignoring the emotional pain of those who are already concerned.

Research is increasingly finding that climate denial's apparent opposite, climate anxiety, is one of the major barriers to climate action. Indeed, what appears to be apathy can actually be feelings of grief and disempowerment that are too difficult to engage with, leading to denial as a mechanism for short-term emotional coping. If there is a lack of care, it is not that most of us do not care, but that we do not know how to care. We do not have the inter/personal competencies necessary for engaging with the intense combination of guilt and fear induced by this existential crisis.

What if lived, embodied, emotional, interpersonal and relational experiences

were considered *constitutive* of climate and as valuable ways to comprehend it? I believe that if we are to adequately respond to climate change, we need to consider humans' ability to feel climate as a serious and powerful mode of engagement.

This book argues that we need to learn to live with climate change. Learning to live with climate change begins from an understanding that *climate is living-with*. Climate as living-with attunes to how the planetary and epochal phenomenon of climate change is metabolically, emotionally and politically enmeshed within our everyday, mundane, inter/personal lives and compels respect, reciprocity and responsibility for this expansive relationality.

While this can sound like a romantic or rose-tinted approach, in an era of climate crisis and ecological collapse, being interconnected with nature is not a choice, nor is it inherently nice: it is our interrelatedness that makes our organs fail in extreme heat, leaves local economies reeling from cyclones, and leads to complex intergenerational grief when ancestral homelands are slowly eaten away by the rising tides. And it is through our interconnectedness with climate that we are making this happen.

Appreciating our intimate relationality with climate change is therefore deeply distressing. Understanding climate as living-with acknowledges we can and do feel violences inflicted on the atmosphere and broader planetary relations in our own bodies, as these violences are also inflicted, in some ways, on ourselves.

Thus, we need to be able to muster the courage to face up to our vulnerability and

“Rather than cultivate tolerance of the unconscionable violences that are being wrought on species, ecosystems, human people and communities, we need to transform ourselves and our affective norms and repertoires... Learning to live with climate change is about striving to make things otherwise.”

— Blanche Verlie

complicity in climate change, painful as it is, because it is only from there that we will be able to transform ourselves and our worlds. We must cultivate an ethos of living-with – respecting, being part of, enduring and responding to – climate change.

Rather than emotional resilience, learning to live with climate change aspires for affective transformation. The climate crisis is traumatic because it renders apparent the grotesque manifestations of our unchecked individualistic sense of self. Rather than cultivate tolerance of the unconscionable violences that are being wrought on species, ecosystems, human people and communities, we need to transform ourselves and our affective norms and repertoires.

Advocating for affective transformation as a response to complicit people's ecological distress is an effort to cultivate emotional climate justice: to work with emotions for climate justice, and to work towards a more just distribution of the emotional impacts of climate change.

Our responses to ecological distress need to ensure that we do not try to 'bounce back' to anthropocentric individualism. Rather, we need to change who we are through, and as a means of, responding to the affective pain of climate change. We need to bear worlds, where 'worlds' are understood as complex sets of more-than-human relations, dispositions, practices, structures, perceptions and identities. We need to be able to endure the pain that business-as-usual worlds are enacting, in order to generate more liveable worlds. Learning to *live with* climate change is therefore not about resignation or giving up. Rather, it is about engaging

with and facing up to the horrific realities of climate change and striving to make things otherwise despite knowing that we may not be able to 'save the world.' Indeed, learning to live with climate change acknowledges that 'the' world is not ending, but 'a' world is, and that some worlds need to end in order to allow others room to breathe.

As a systemic issue that is progressively killing more and more people, species, ecosystems and livelihoods, if we face up to and engage with these issues, climate change could be the teacher we need to help us learn how to live.

—

Blanche Verlie is a Postdoctoral Fellow at the Sydney Environment Institute at the University of Sydney, an Australian climate change educator and researcher currently living on unceded Gadigal Country. Blanche has over 10 years' experience teaching sustainability and climate change in universities, as well as experience in community-based climate change communication and activism. Blanche has a multidisciplinary background, brings an intersectional feminist approach to her work and is passionate about supporting people to engage with the emotional intensities of climate change.

This is an edited excerpt from Blanche's new book, [*Learning to Live with Climate Change*](#), published by Routledge, which is available as a free e-book.



Healing Country: Sydney Initiatives Working Together

Professor of Practice in Environmental Wellbeing Melissa Haswell and SEI Director David Schlosberg reflect on the strategic collaborations happening across the University that are demonstrating the possibilities for healing Country.

By Melissa Haswell, Professor of Practice (Environmental Wellbeing), Office of the Deputy Vice Chancellor, Indigenous Strategy & Services, and David Schlosberg, Director, Sydney Environment Institute

Since its announcement in January, and particularly now as NAIDOC week opens, we are reminded of the critical importance of this year's theme *Heal Country!* This theme calls attention to the overwhelming responsibility and need for all Australian people and institutions to 'pull out all stops' to embrace caring for the environment in all our actions, as if our collective future depends on it, because it truly does. And there is no better guidance for our challenges ahead than the timeless knowledge and profound connection between Aboriginal and Torres Strait Islander Australians and the Lands, rivers and oceans that sustain us.

With University-wide support, the [*One Sydney Many People*](#) (OSMP) and [*Sustainability Strategies*](#) were launched in late 2020. Both strategies grew from extensive independent consultation processes and converged on many themes. DVC ISS established a Professor of Practice in Environmental Wellbeing in June 2020 to facilitate the integration of Indigenous perspectives into the Sustainability Strategy, including the placement of Caring for Country as its foundation, and conversely the inclusion of University-wide actions for sustainability into all four One Sydney Many People pillars.

Careful mapping of the interface between the strategies and work already underway and planned by key stakeholders, including the Sydney Environment Institute, identified many rich opportunities that can be achieved by working together, expanding scope and reach and mutual reinforcement.

What has been achieved so far? While valuable synergies were evident right across both strategies, three example areas are described of collaborative work of particularly critical importance already well underway.

First, DVC ISS's successful delivery of its hallmark Service Learning in Indigenous Communities (SLIC) unit of study (Nguragingun Culture and Community Pillar) is a growing contribution to the Sustainability Strategy's promise to partner with peoples and communities in urban, rural and regional Australia and globally in co-created activities to deliver long-term sustainable benefits (Foundation Caring for Country) and support understandings of Aboriginal and Torres Strait Islander peoples' ways of living in harmony with the environment and each other (Pillar 1).

Through this work in Semester 1, 15 SLIC students traveled to the Torres

Strait Islands to support Community Services Managers within the Torres Strait Island Regional Council in their 2021/22 Operational Planning and to seek ways to enhance climate resilience and sustainability of their services and their Island home. A further eight SLIC students traveled to Palm Island to evaluate the social, economic and wellbeing benefits accruing from their partnership with Tribal Warrior [Sydney] in maritime training, celebrating/retracing ancient cultural sea journeys and reclaiming custodianship of Land and Sea. SEI highlighted this work in curating the opening day of the Reimagining Climate Adaptation event in April, featuring an overview of the capacity of SLIC alumni and their growing voice in sustainability policy, practice and research, including SEI Honours Fellow Phoebe Evans.

Second, there are multiple ongoing activities contributing to OSMP's Ngara (Education and Research Pillar) commitment to embedding Aboriginal and Torres Strait Islander peoples' knowledges, skills, concepts and ways of life in teaching and research and SS's Pillar 1's (Enriching lives through education and research) drive to expand our collective imagination... grow opportunities for putting research excellence into practice.

Highlights in teaching include extensive collaborative work by OSMF to encourage, enable and offer seed funding to schools and faculties to undertake concrete and visible steps to indigenise their curriculum across majors and all years of study. Extending this to include Indigenous concepts of living in harmony with the environment is increasing students' access to new ways to know, understand and take action towards a more just and sustainable world. SEI also enables students to progress further educationally in these areas through our Honours fellowships, and supports Masters and PhD students engaged at the intersection of sustainability and Indigenous knowledges. Two of SEI's resident postdoctoral fellows, Drs Christine Winter and June Rubis, work at this intersection – and integrate it into both teaching and research.

In addition, colleagues at both SEI and DVC ISS have been collaborating with others across campus on the development of a new undergraduate major in Sustainability, promised by the Sustainability Strategy. One of the proposed Learning Outcomes is for all students to “Develop multicultural competence and gain appreciation of Indigenous approaches to sustainability such as Caring for Country”. This broad major will involve multiple faculties, create learning cohorts to engage and support students across their three years, and culminate in comprehensive and applicable capstone projects.

On the research side, colleagues in DVCISS and SEI have contributed to a number of collaborative grant opportunities, including the Sydney hub of a major proposal to the National Health and Medical Research Council Special Initiative on Human Health and Environmental Change, which, if funded, would include DVC ISS Professor Lisa Jackson Pulver AM leading a team of Aboriginal and Torres Strait Islander researchers in creating an Indigenous Knowledges Pillar. Researchers in SEI's world-leading multispecies justice collective have been developing another project proposal at the interface of cultural and ecological conservation. Postdoctoral Fellow Dr June Rubis was a co-author on a crucial report, *Territories of Life*, conceived to assist the UN biodiversity and climate change conferences this year engage with

the rights of Indigenous peoples and local communities worldwide. And Postdoctoral Fellow Dr Christine Winter is hosting the new *Heal Country* podcast series for SEI, highlighting Indigenous research and researchers contributing to this crucial discussion.

Finally, both the OSMF and Sustainability Strategies are dedicated to changing the very practices of the campuses of the University. The many commitments made by the Sustainability Strategy's Pillar 2 (Enabling resilient places and a responsible footprint) help to meet the core vision of OSMF, Through our shared responsibilities to the Aboriginal Lands upon which the university stands, we create a genuine sense of belonging among all students and staff and each item of its Pemulian (Environment) Pillar. In turn, building a strong appreciation of the timeless custodianship of Aboriginal people of our campuses reciprocally boosts a sense of belonging and therefore responsibility to contribute to its protection and sustainability.

For example, colleagues from both DVC ISS and SEI have been involved in the University's new Biodiversity Management Plan, to be released at a National Tree Day Event on 30 July, demonstrates multiple ways in which Indigenous knowledges dovetail with sustainability. This is evident through a long standing close partnership in the design and planting of a new Curriculum Garden with local Aboriginal business IndigiGrow with Landscape and Grounds in Central Operations Services and Faculty of Science academics with awareness of language and cultural connections to plants, to create signage and a video capturing the day's highlights by the DVC ISS production team.

In addition, both DVC ISS and SEI have been involved in the development of the University's new Sustainable Investment Strategy. With the wave of grief and loss still fresh from the recent deliberate destruction of a 46,000 year old sacred site at Juukan Gorge by Rio Tinto, the DVC ISS has pushed for inclusion of the Protection of Indigenous Rights and Heritage in the strategy. Heralded as a major step forward in the University's commitment to ensuring its assets do not progress climate change and modern slavery, DVC ISS and SEI will help the University

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David Schlosberg is Professor of Environmental Politics in the Department of Government and International Relations, Payne-Scott Professor, and Director of the Sydney Environment Institute at the University of Sydney. He is known internationally for his work in environmental politics, environmental movements, and political theory – in particular the intersection of the three with his work on environmental and climate justice. His other theoretical interests are in food justice and multispecies justice, climate adaptation and resilience, and environmental movements and the practices of everyday life – what he terms sustainable materialism.



By linking into a presentation of SLIC's work to Gur A Baradharaw Kod (GBK) Torres Strait Sea and Land Council by Academic Lead Professor Melissa Haswell and University of Queensland Lecturer Francis Nona, Phoebe Evans (SLIC Sem 2 2020 alumni and current SEI Honours Fellow) was able to gain approval and recruit participation of Native Title Owners about their views on renewable energy transitions in remote Torres Strait Islands. Image of Thursday Island via Shutterstock, ID: 1019340601.

break new ground in identifying, pressuring and eliminating investments that enable Indigenous heritage destruction.

In closing, it is important to recognise the gravity and urgency of the challenge posed by Aboriginal and Torres Strait Islander people through NAIDOC Week to Heal Country! At present Australians are increasingly singled out for being one of the world's highest per capita consumers of single use plastics, emitters of greenhouse gases and enthusiastic exporters of coal and liquified natural gas (LNG) obtained through roads, wells, fracking operations and industrialisation across vast landscapes. Land clearing rates remain extremely high, even as threatened plants and animals are pushed toward extinction. With our nation's severe lack of coherent and effective government policy and laws on environment and heritage protection, sustainability and climate change, it is up to Australia's people and non-government forces to form broad collective leadership of change to protect our future.

Listening to and learning from Aboriginal and Torres Strait Islander Peoples and joining Caring for Country actions to Heal Country! not only helps reduce our ecological footprints, taking action can also boost our wellbeing and energy to participate in change. SEI and the Office of DVC ISS are proud to collaborate where we can to teach, research, and demonstrate the possibilities for healing Country.

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Interweaving Voices: Wayai and Women's Songs of Sorrow

In the fourth part of the Interweaving Voices series, musicologist Genevieve Campbell shares the story of the Wayai, and the powerful connections across memory, time and space the songs summon.

We advise that this article contains names and images of Aboriginal and Torres Strait Islander people that have passed away.

By Genevieve Campbell, Post Doctoral Research Fellow,
Sydney Environment Institute & Sydney
Conservatorium of Music

This is the fourth instalment in the Sydney Environment Institute's *Interweaving Voices series*, a collection of videos and written reflections by Postdoctoral Research Fellow Dr Genevieve Campbell about her work preserving the songs of the Tiwi Islands.

For this, the next in our series of thoughts on the interweaving of Tiwi voices through people, place and time, we are thinking about Wayai, the ancestral woman who now cries as the Wayai bird. Thinking too how recordings from the archive add to the threading in and out of songs, hearing grieving in recordings made generations ago is a moving and sometimes confronting experience. Decisions around the inclusion of voices, names and songs are made with sensitivity and respect and with Tiwi family. Amongst the archive we have discovered some powerful examples of the women's amparuwu grieving songs. They have inspired conversations and singing as older Tiwi women teach younger ones about the Wayai bird and her place in the Palingarri and today. This and the accompanying audiovisual piece were composed with the help of Augusta Punguatji, Frances Therese Portaminni, Jacinta Tipungwuti and Ella Puruntatameri.

In the Palingarri, the deep past, all the animals and birds were men and women. Tokampuwu (birds) are present throughout Tiwi creation time stories. The tokampuwu ancestors were the messengers, mourners, informers and law makers. Birds continue to follow the ways of their deep past mortal selves and so they continue to teach Tiwi people customs and seasonal knowledge through their behaviour as the birds we see and hear. Tokampinari is the dawn – etymologically 'the time of birds' – when the birds start to sing at first light. In the Palingarri it was the time when the birds had the first conversations after the 'dawn' of the period of people. The birds continue to converse and engage with people, following the teaching,

helping and cultural behaviours of their ancestral predecessors.

Purruti, the sea osprey was a fisherman and still guides us to good catches, Mudati (the fork-tailed kite) helped discover fire. The koel, Alarpiningwani, is a note in the calendar, whose call signals the imminent start of the wet season. Japparika (the frigate bird) is a warning system, congregating on the shore when a storm or cyclone is approaching. Kirrilima, the jungle fowl builds a large round mounded nest and is said to have taught the ancestors how to make the circular cleared dance ground central to all ceremonies. The sulphur-crested cockatoo is Yinkaka, symbolised by the weaving of his feathers into adornments and his voice into songs for mortuary ceremonies. He keeps watch over the ceremonies, encouraging the deceased spirits who might be lost on their journey to the next state of existence. When he flies across the sky he is following the paths they [the deceased] walked on the land and is making sure they are safely there with the spirit ancestors.

Now through their calls and behaviours the birds create a daily aural hourglass, singing to note weather changes and responding to the height of the sun and the moon. Tiwi song language similarly includes the sound of times of the day in specific grammatical and poetic patterns depending on when one sings. This is not to say that Tiwi singers are mimicking birds, but they are placing their vocal presence in the present – perhaps a millennia-old transmission of sung knowledge tracing right back to those first ancestral singers, whose 'words' applied to when and where they were singing. When Ella sings her Dreaming Kirrilima she embodies the voice of Jungle Fowl, as it looks out surveying its country. She tells me this is not (just) the sound of the Jungle Fowl, but of the ancestral bird speaking – in the moment of the bird's surveying and of her (the singer's, the bird's and the ancestor's) song. This she said was the sound of the story

Genevieve Campbell is a 2019 University Fellow at the Sydney Environment Institute and Sydney Conservatorium of Music. Since 1988 Genevieve has played horn in many of the major Music Theatre shows in town plus everything from Musica Viva to Australian Idol, Opera Australia to the Wangarratta Jazz Festival and toured with Anthony Warlow, Barbra Streisand, Michael Crawford and (her favourite) Shirley Bassey. Ngarukuruwala and her close involvement in the discovery and repatriation to the Tiwi islands of archived song recordings led her to complete a PhD, working with elders to document and preserve Tiwi song language and melody. Her current focus is on documenting endangered song sets and the creation of new work centred around archival recordings of passed Tiwi composers and the words, knowledge and voices of current Tiwi Elders and young people.

Genevieve is the Research Lead on Tiwi Song Culture and Loss at Sydney Environment Institute.

“The act of recording individual, contemporaneous, one-off songs risks changing what they fundamentally are – non-repeatable. This is a conflict that senior Tiwi singers and I discuss often as they find a balance between preserving near-lost song language and allowing for the ongoing innovation and currency that underpin Tiwi song practice.”

Genevieve Campbell

that belongs to her country. The sound of the environment from within it, not a description from outside it.

Wayai (also known as Bima) is the Tiwi ancestral woman. The death of her infant son Jinani was the catalyst for all death and mortality. In her grief and shame she became Wayai, the Bush Stone Curlew, destined forever to cry every evening in her loss. Her cries of sadness and regret are heard through the bird’s mournful call at night and through the ‘crying words’ in women’s sorrow songs. More than mimesis, these are the cries of grieving women connected through their songs and through the Curlew’s calls all the way back to Wayai, the first woman to cry for sorrow.

Amparruwu is the widow song. It is performed alone, often away from the assembled mourners, at the time of a death, throughout the mortuary ceremonies and anytime of sorrow at the agency of the widow herself or of sisters singing in support of her grieving. Although there is a definable melody for songs of the amparruwu it enjoys as many variations as there have been singers. The amparruwu songs are laments, keening, cathartic expressions of sadness, so much so that even in the absence of a ‘translatable’ meaning, a strong emotional and spiritual response is felt by Tiwi listeners who recognise the ‘sound of sorrow’ physicalised by the singer and absorbed by the listener. Each woman expresses her own emotional, physical, spiritual self through her song and her way of calling out after Wayai is her own. As the widow she sings to release her own sadness and to allow others to cry with her, giving people permission to feel pain and sadness and taking it in to herself on their behalf. Absorbing the grief as she must

as the representative at that moment of Wayai, of all the women who cry for death. In these songs we find what the women call the ‘crying words’ kayai kayai kayai.

When we sing amparruwu we sing like that crying Wayai. We are remembering that story.

As the elder women today hear recorded voices of their sisters of the past singing amparruwu they feel part of the continuity of life and death, and they listen to the recordings with a motivation that goes beyond historical, cultural interest or family sentiment. They listen to these songs, sung many years ago to heal those around the singer at the time, and they in turn receive healing themselves.

Meanwhile the Wayai bird cries at night and the women sing back to her – a visceral connection between the past and the present.



Ngarukuruwala Choir performing at the Chau Chak Wing Museum in May 2021 by Liberty Lawson.



Image by Chris Wright.

Encounters, Transformation, and Perspectives in Multispecies Storytelling

In this collaborative piece a geographer, an anthropologist and a historian unspool reflections on and excerpts of writing from the recent SEI *Writing the Environment* workshop.

By Hannah Della Bosca, SEI Doctoral Fellow and PhD Candidate, Department of Sociology and Social Policy; Sophie Chao, Postdoctoral Research Associate at the Department of History and the Charles Perkins Centre; and James Dunk, Research Fellow in the Department of History.

We live in an age of planetary unravelling, where industrial processes have undermined the conditions of life at a global scale. Faced with the unspeakable violence wrought on the more-than-human world through ongoing extraction and extinction, we often find ourselves at a loss for words.

And yet, wording worlds is vital to forging otherwise futures, reaching with language towards the limits of our consciousness. But how can we word worlds in ways that begin to encompass non-human perspectives, multiple scales, and the granularity of crises both lived and wit(h)nessed? These are some of the many concerns that were discussed during SEI's *Writing the Environment*, an interdisciplinary workshop aimed at opening up and exploring the ways in which we as scholars craft more-than-human narratives.

Here, a geographer, an anthropologist, and a historian share the writing prompts offered during the workshop, and their personal responses to them.

How does it feel to physically experience climate change events?

What does a climate encounter feel like, to the eye, to the limbs, to the nose and mouth, to the ear? What does it feel like in the body, as an experience? The detail of lived experience and the narrative power of story-telling loosens up academic logic and invites new avenues of communication through connection with our own stories.

My hiking boot sinks into ash, the feeling so novel and soft even as my whole foot disappears and I find myself calf deep in a barren clearing of deceptive ground. I sink and eventually find resistance enough to raise my other leg and repeat the whole process.

I am being led by a local environment group through what once was a wet, spongy, verdant swamp along Newnes Plateau on the western edge of the Blue Mountains. It now resembles a parched and crumbling quicksand moonscape.

What has happened here?

Like many big changes, the answer lies dispensed through time and cumulative actions – a recipe of sorts. First, take a thriving upland swamp, teeming with food, lives, homes, and lifeways. Insert a longwall coal mine beneath it. You are

likely to find that the sandstone foundations of the swamp crack like an egg on a skillet from the pressure of the new cavity. Wait for the water to drain through the swamp and into the mine shaft below. Know that this crack is the new and permanent waterway. Watch as the spongy, wet swamp becomes drier, a little more parched and brittle. Watch as a sustaining bowl becomes an empty sieve.

Next, wait again. Wait until the air is hot and still, and the surrounding sclerophyll bushland vibrates with the sound of cicada song. Wait for the fire, smell it as it burns through the scrub. You won't have to wait too long. Ignore your terror and the smoke burning your eyes, and watch as the fire looks to where that unapproachable wet sponge land has long lain, and sees a new avenue of introduction. Dryness. Watch the fire embrace the swamp vegetation and watch as that vegetation surrenders. Not just some, but all. Watch as the peat foundation, always so protected by its soggy blanket, meets fire for the first time. Watch the peat not only surrender, but riotously participate in its own burning. A match lit in heaven – the peat foundations of the swamp burn and burn and burn and burn until there is nothing left but dust and scorched earth.

The bushfire front passes, and time passes, and policies pass. The rain comes again and the bushland sprouts anew, verdant green shoots on black. You breathe out. Phew. But the swamp – can it still be called that? – the swamp is gone. What took millions of years to accumulate is gone, in a day.

My feet sink into the not-swamp, and I trudge onward, one foot at a time.

What might a metamorphosis from human to plant feel like?

Metamorphosis is a process of perpetual change, transformation, and motion. It refuses stasis – either of form, identity, or perspective. In Ancient Greek and Roman mythology, metamorphosis was often a transspecies event – one alternately desired, punitive, or accidental. Taking a leaf from these ancient writs, we might harness

metamorphosis to push against anthropocentric epistemologies and ontologies and instead attempt, humbly and tentatively, to perceive the world through the bodies and behaviors of other-than-human beings. Such a practice can generate new forms of interspecies empathy – even as we remain conscious of the lure and limits of anthropomorphisation. Try writing like a human turning plant, for instance. Embrace the limits of knowability as you shift from structured thinking to decentralized being. Feel the strange liberation or fear that might accompany the shedding of human skin and the sheathing of vegetal bark. Later, perhaps, write as an other Other. A microbe, or fungus, or fire. You may return to your skin otherwise.

It begins at my fingertips. A tingle, or sense of elongation – not directional or definitive, but tentative and searching. Tingle turned tendril, and a swelling at the core – where flesh and fluid mix in new and alien ways. Veins, bone, and muscle become strangely porous – solids flowing, liquids hardening. Sap is forming.

I realize I can breathe light. More than this – I can eat it. This is not an eating of the digestive, masticating kind. This is an eating that is not limited to the mouth (if I still have one) or senses only through the taste and texture and smell. This is a full-bodied ingestion of something intangible yet nourishing. It enters my every pore and flows out again – light turned colour turned vitality.

I bend. Ever so slightly. Leaning towards the light that I can eat. My fingers-turned-tendril are moist and reaching – some upward, others, downward, sinking into the soil that is cool and fresh and feeding. The soil holds me and grows me. It is boundless and shapeless – and yet it shapes me.

Little things that are green and fleshy are sprouting. One here – another there. So small and delicate they startle me. I recognize my veins in the little things that are green and fleshy. I have no centre of being, yet I feel centred. Droplets roll down my skin-turned-bark, into my blood-turned-sap, out of my feet-turned-root. I see through my pores without eyes, and breath through my leaves without mouth.

I lean into this new way of being that is always already becoming.

How can we recognise the stories and perspectives of more-than-human beings?

The long preoccupation with the human in Western thought has come at great cost to other worlds. To write through and beyond the preoccupation – and to write past the human – feels forced, the words seeming to describe the limits of my understanding and empathy. But at least, perhaps, they fail in the right direction, pressing beyond these structures of language and thought to imagine ways to other worlds.

From the compost heap, the small portion of the 127m2 we rent from the world given over to other kinds of life, mushrooms grow. I do not know their name or lineage, what risk or reward they pose. And they do not know me apart from the nutrients I leave at the top of the pile, which they might just as well receive from my body breaking-down, or from the plants which will take possession of this terrace after tenants and landlords are gone, and the animals that will come, eating, excreting, and finally also deconstructed by the intimate relations of life – relations which escape me, but which I will not escape, and which I think do not escape the mushrooms. These relations mediate between planetary history and the life which grows on through the darkness.

*The mushrooms have broken out through a gate forced open by a root system which claims part of the wilderness of carrot fibre, avocado cores, and filter papers, and the cockroaches, worms, and others I have no names for. Outside, they strain against the wire mesh which, though it has curled into an advanced defensive manoeuvre, has not impeded the *rattus norvegicus* who finds here one or two good meals a day.*

But the wire does impede the mushrooms. As my hold on this place and that of others like me fails, the mushrooms will find more room and more to grasp and digest than

timber and brick and the refuse of human lives. Find food and space and peace. The mushrooms already assert their rights to each in the contours of their flesh straining against the wire and lustrous in the gills they keep to themselves beneath weathered hides, the stools that beat away the sun. Their bodies are their stories, their stories their bodies – a formal purity and an admirable habitation of the present, an insistent life which will metabolise memories of our systems and sensibilities long after this moment of wire, bricks and plastic boxes.

This article draws from writing exercises held during the SEI workshop “[Writing the Environment](#),” led by novelist and literary critic James Bradley, Professor of Classics and Ancient History Julia Kindt, and SEI Acting Director and Professor of Sociology and Social Policy Danielle Celermaier.

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Hannah Della Bosca is a PhD candidate in the Department of Sociology and Social Policy and a Research Assistant at the Sydney Environment Institute. Hannah has a background in Legal Geography around environmental decision making, generational coal mining communities and energy transitions, and protected upland swamps. She has previously contributed to research on community resilience and responses to disruption, and continues to work on projects related to environmental and social justice, and violence.

Sophie Chao is a Postdoctoral Research Associate at the Department of History, University of Sydney, and rising Discovery Early Career Research Award Fellow and Lecturer in the Department of Anthropology. Her anthropological and interdisciplinary research investigates the intersections of Indigeneity, ecology, capitalism, health, and justice in the Pacific. Her book, *In the Shadow of the Palms: More-Than-Human Becomings in West Papua*, received the Duke University Press Scholars of Color First Book Award in 2021 and is forthcoming with Duke University Press in 2022.

James Dunk is a Research Fellow in the Department of History. Trained as a historian, his current research focus is the way the physical environment has figured in mental health and psychology. He works with scholars in psychology, medicine and public health to understand how ideas of health are becoming more ecological. His book, *Bedlam at Botany Bay*, won the Australian History Prize at the New South Wales Premier's History Awards in 2020.

An Endangered Menagerie: Ode to the Gilbert's Potoroo

The mountain ash eucalypt, regent honeyeaters and potoroos are all vanishing at an astonishing rate, alongside countless others. Following the *Requiem* exhibition panel discussions, we assemble excerpts from a new collection of writing aiming to bear witness to this age of loss.

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By Sophie Chao, Postdoctoral Research Associate at the
Department of History and the Charles Perkins Centre

Potoroo, potoroo
Your long, slim brown tail moves fast in the grass
Your slender curved snout trails ground, rock, and bark
You smell, then you spring, they you sense, stop, and start
As you forage for fungi under cover of dark
In a vast moonlit country
Across bushland and creeks
Fur dense on the body and pale on the chest
Sparse on the tail, and full on the cheeks
Potoroo, potoroo,
The Black Summer fires ate half of your land
Against fire and flame and climate we race
With cameras and trackers we search for your trace
Around you have flourished the campaigns and calls
With bait stations we attract those who survived through the flames
We struggle to sight you, lure you, and feed you
With glistening treats we hope to entice you
Peanut butter, dried oats, golden syrup and truffle oil, to name but a few
Potoroo, potoroo
You have seen this before
Found, near-extinct, and once more reborn
Lazarus you were, but may be no more
Reduced you may be to the lost stuff of lore
But somewhere still in this vast moonlit country
There holds in the soil your still-living memory
A long, slim brown tail that moves fast in the grass
A slender curved snout that trails ground, rock, and bark
Across rivers and woodlands and bushlands and creeks
Fur dense on the body and pale on the chest
Sparse on the tail, and full on the cheeks





Waratah anemones by Liberty Lawson.

Wild Sense: Ethics and Multisensory Ecology

In this reflective piece drawing on work presented in the August 2021 Birds and Language Conference, Jay Johnston considers how sensory ecology may open up creative space for humans to better-know our fellow creatures and build worlds that reflect this knowledge.

By Jay Johnston, Department of Studies in Religion.

As explored in the eccentric adventures of Charles Foster in *Being A Beast*, non-human animals perceive the world very differently to humans.¹ Foster's often hilarious escapades utilised his knowledge of sensory systems to demonstrate the sheer alterity of the ways that particular animals, including deer and swifts, experience the world. His preparation involved training his own senses to be more like those of the species he wanted to emulate. However, no matter how hard he tried to enter their worlds, alterity always remained.

This short article is an introduction to the emerging field of sensory ecology. This new and exciting approach has significant potential for conservation practice. Moreover, its focus on intersensoriality and human/other-than-human interrelationships makes it a useful lens through which to open up questions about inter- and multi-species ethics. The focus of this blogpost is on birds, but I open with a more general introduction to the kinds of non-human lives and experiences brought closer by sensory ecology.

Considered an aspect of behavioural ecology, sensory ecology encompasses understanding the many different sensory systems that other animals have; how these

systems function and how the animals use them.

Animal sensory systems are really wild! The range of the human senses appear limited in comparison. Not only can many animals hear sounds at lower (infrasonic) and higher (ultrasonic) frequencies for example, but they have senses that humans simply do not. Bats (chiropterans) and some cetaceans, like whales, use echolocation: emitting and perceiving sound waves and echoes to navigate.

Mainly aquatic species utilise electroreception to detect electrical impulses from prey and to locate objects. Australia's platypus (*Ornithorhynchus anatinus*) has the distinction of being the only mammal known to have this sense. Magnetoreception, a sense that detects magnetic fields, has been found in a range of invertebrates and vertebrates.

It is not only that other-than-human species have different sensory systems and perceptive capacities, but that in a given class – for example Aves – a great range of diversity can exist between species. As Graham Martin writes in *Bird Senses*, “In effect each species lives in a different secret world. Species may share the same environment, but the worlds that they

inhabit are different.”² As Martin puts it clearly, there are many different “birds’-eye views.”³

Avian species are distinguished by their capacity to see in the ultraviolet (UV) colour range invisible to humans. A plumage that looks drab grey or monochrome brown to the human eye may appear to birds as a feast of iridescent pinks, blues and greens. Some species of Australian parrots, for example King Parrots (*Alisterus scapularis*) have even been found to have feathers that glow. Indeed, as identified by Bennett et. al. ultraviolet hues play a role in Zebra Finch mate selection.⁴ As behavioural ecologist Esteban Fernández-Juric exclaims “birds can perceive colours that humans cannot even imagine.”⁵

Seeking greater understanding of how avian species perceive the world may make a useful contribution to conservation practice, through assisting in the design of programs and environments to protect species and also helping us to understand and mitigate the negative impacts on wildlife of human-induced sensory pollution. Anthropogenic noise is one, blaring example: engine and machinery racket, sonar waves and all manner of blips, bangs and clatter are relentlessly produced by human societies. Studies have shown

“This is a complex dance between familiarity and alterity; a space of ethical import for which an expanded sensory literacy is requisite.”

Jay Johnston

that these can cause disruption in animal communication systems and induce stresses that have a range of impacts, including individual mortality and breeding failure. During COVID lockdowns the momentary lull in this noisecape has meant that some urban bird species were able to sing more softly or more complexly.⁶ Sensory ecology attunes us to these subtle responses to our own actions.

We can also focus our analytic attention onto historical accounts of how humans lived with and alongside birds. In *Birdmania*, Bernd Brunner recounts nineteenth-century records of the relationship between James, a lyrebird, and a Mrs Wilkensen, who lived a solitary existence in a remote mountain valley.⁷ Their relationship was characterised by Ambrose G. H. Pratt (1874–1944) as “close, almost telepathic”⁸ who further recorded:

Nausea beset her [Mrs Wilkensen], and for several hours she lay prostrate, wondering in the intervals between spasms of acute sickness how long a time must pass before some tradesman or neighbours might come to whom she could appeal for help. She fell at length into an exhausted slumber, to be awakened by strange scratching sounds outside her bedroom window. They continued for at least an hour, then suddenly the head of her beloved bird appeared in silhouette about the sill, and ‘James’ began to sing to her as she had never heard him sing before. The lovely miracle cured Mrs Wilkensen more effectively than could all the physicians in the capital.⁹

While we can (and should) consider this prose within the discursive tropes of its time, of note in this context is the perception of human–bird relational healing and the rendering of relations founded on something other than the five senses of empirical science (reductively considered) and that this close personal relation emerged and developed over time.

This relation was not a reading of the species

appearance symbolically (birds of course, have long been viewed as symbol and omens). Nor was this type of specific, relational “knowing” unique, as I discovered after presenting a public lecture on bird divination at a birdwatching festival. Unexpectedly, participants shared details of their own specific, personal bird relations. These were deep relations that drew together experiences of locality, biography, and shared human–bird routines.

To acknowledge, recognise, ‘see’ these relations required a discipline of consistent attention: a multisensory practice of care established upon and fulfilled via sensory engagement. Significantly, these relations were founded upon the lived recognition that avian and human contributed equally. Sensory engagement constituted a genuine conversation – not, for the human participants, an empathic engagement with a (erroneously presumed) less knowledgeable being. This is a complex dance between familiarity and alterity; a space of ethical import for which an expanded sensory literacy is requisite.

There is no doubt that birds live in multisensory worlds. It may be that the duration, repetition and relations of familiarity developed via time spent in such practices as birdwatching – actively cultivating multisensory relations – enable us to both glean a little of avian worlds and expand our own perceptual literacy. This possibility is explored in Ruth Barcan’s companion piece.

This reflective piece draws from work presented at the School of Literature, Art and Media’s Birds and Language Conference, which occurred at the University of Sydney in August 2021.

Jay Johnston is Associate Professor, Department of Studies in Religion at the University of Sydney.

References

1. Charles Foster, *Being a Beast: An Intimate and Radical Look at Nature* (London: Profile Books, 2016).
2. Graham R. Martin, *Bird Senses: How and What Birds See, Hear, Smell, Taste and Feel* (Exeter: Pelagic Publications, 2021), 3.
3. Martin, *Bird Senses*, 5.
4. Andy T. D. Bennet, Innes C. Cuthill, J. C. Partridge and Erhard J. Maier. “Ultraviolet Vision and Mate Choice in Zebra Finches.” *Nature* 380 (1996): 433–435.
5. Esteban Fernández-Juric 2016, 155.
6. Elizabeth P. Derryberry, Jennifer N. Phillips, Graham E. Derryberry, Michael J. Blum, and David Luther. “Singing in a Silent Spring: Birds Respond to a Half-Century Soundscape Reversion During the Covid-19 Shutdown.” *Science* 370, no. 6516 (2020): 575–79.
7. Bernd Brunner, *Birdmania: A Remarkable Passion for Birds* (Sydney: Allen and Unwin, 2015) 146–47.
8. Brunner, *Birdmania*, 146.
9. Brunner quoting Ambrose G. H. Pratt *Birdmania*, 146.



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page: *Waratah anemones* by Liberty Lawson.



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Birding in Lockdown: Reconsidering Vision

In this companion piece to Jay Johnston's introduction of sensory ecology, Ruth Barcan reflects on the thronged multitudes who visit her birdbath and the contours and nuances of these encounters.

By Ruth Barcan, Department of Gender and Cultural Studies

I have been a birdwatcher for decades. I'm not single-minded or knowledgeable enough to call myself a birder or twitcher but nor am I likely to leave my binoculars at home on even the shortest of walks. I have a well-ticked Simpson and Day¹ that I would be devastated to lose. I live on the edge of bushland, so COVID lockdowns have not interfered with my ability to observe birds. Here, though, I discuss what lockdowns have meant for my interactions with birds in the domestic space, focusing on the birdbath in the corner of my back deck. I received this birdbath as a somewhat quirky present a few years ago and it has become an important and meaningful part of my suburban life, enmeshed in daily habits of household maintenance and of perception.

The backyard setting is important, since gardens are “places where key environmental engagements occur” for most Australians.² This has been amplified under COVID lockdowns, as suggested by a tenfold increase in responses to BirdLife Australia's annual “Birds in Backyards” survey in 2020.³ As bird populations come under pressure, birdwatching from home is increasingly ecologically significant – whether as a generator of citizen science knowledge, an affective engine that might help galvanise broader environmental concern, or as a location for acts of stewardship and care for avian “friends.”

The scholarly and practical attention to the household as a space of environmental engagement tallies with the shifting foundations of the discipline of ecology which, according to Thom van Dooren, is starting to stretch towards the recognition that humans need to be included in the *oikos* (i.e. household) to which it owes its name (“*oikos*” is etymologically linked to “eco”).⁴ The converse is also true: many urban and suburban dwellers are coming to see non-human beings as part of their

household. This is not a neat incorporation, but rather a “difficult work of crafting flourishing multispecies communities,”⁵ which often involves inconvenience and frustration. As van Dooren notes, forging such communities involves the “slow, careful work of attending to the particular.”⁶

In the three or four years since it has stood in the corner of our deck, the birdbath has grown into a hub of multispecies life, serving not only birds, but possums, flying foxes, bees and, I suspect, snakes. It has allowed my human household to observe bird interactions up close but has also “interjected”⁷ itself into the worlds of the birds who dwell in the nearby trees and brought in new avian actants who had previously only passed by overhead. It has thus come to be both a site for human-bird relations, in which my household is “learning to see and to see-with”⁸ a small cohort of birds, and a prompt for new interactions between birds themselves.

Despite the multi- and inter-sensorial elements involved in our interactions, I focus here on vision, not only because it is still undoubtedly crucial to birding but also because it is the presumed ocularcentrism of birdwatching that has come in for the most sustained academic critique. Critics of birdwatching point to the intermeshing of power-knowledge regimes with particular sensoria, especially ocularcentric ones.⁹ In such analyses, the lists, field guides and binoculars quintessentially associated with birdwatching are understood as technologies of capture enmeshed in colonial extractive logics that rely on and reproduce particular sensory hierarchies. Birdwatching is figured as a form of “symbolic hunting,”¹⁰ a “taxonomic discourse”¹¹ par excellence. This is an important point. But birdwatching cannot be reduced to symbolic capture, ignoring the contexts and embodied experiences of

its practice.

First, as with all birding, vision isn't the only sense involved but an important part of a complex intersensory mix. Second, the vision involved in birdwatching is not singular, but involves many modes of looking, including glancing, peeking, peripheral vision, alertness to shadows or movement, or looking down to avoid startling a bird. Third, my back-deck birdwatching has little to do with what Spencer Schaffner accurately characterises as the primary, obsessive and singular “rhetorical accomplishment” of birdwatching – “successful identification and naming.”¹² For I know already that the bath will be visited by a limited range of the local bird population: Noisy Miners, Red Wattlebirds, Brush Wattlebirds, and, when these rather intimidating birds give her a chance, a female Satin Bowerbird. We get occasional visits from Butcherbirds, a pair of Crested Pigeons and a family of Brown Cuckoo-Doves. Recently, Sulphur-crested Cockatoos have discovered that we are a reliable source of drinking water and in 2020 the Pied Currawongs added us to their winter dispersal itinerary, having discovered that the bath is the perfect vessel for their characteristic regurgitation of undigested seeds.

These birds are familiar – so familiar that wattlebirds haven't merited any serious attention in my Simpson and Day. I do, though, play daily identification games by proxy, diagnosing early-morning feathers, shit or vomit and “reading” the splash zone like a watery sign: an extensive splash zone might hint that the bowerbird has been for an early bath, since she seems to be an unenthusiastic drinker but an exuberant splasher. I am learning small details of avian habits, personalities and lives – learning that bigger birds aren't always fearless; that some species prefer to swim while others prefer to drink, that some birds splash

much more than others, and that Brush Wattlebirds are extremely finicky about washing, and spend time cleaning their feet. As this brief description shows, I don't pretend that I am not seduced by the pleasures of taxonomic discourse. But this is not the sum total of my engagements with these birds. Context matters.

For I also engage with these birds in new ways, including the matinal scrubbing away of currawong regurgitant. This is my fourth point: that the vision involved in back-deck birdwatching is not a singular process of capture in the service of identification but something that can activate a variety of calls to action that might include picking up a camera, but are equally likely to involve retreating from the window, delaying a cup of tea, asking other family members to be quiet, calling out "hello" to the bird in question, imitating a birdcall or going outside with bucket and brush to clean and refill the bath.

Finally, and crucially, the visual engagements at the birdbath are not unilateral. Not only do they involve humans looking at birds, they also involve birds looking at humans in our own 'natural' habitat, and birds looking at other birds.

As I move about my kitchen, the birds watch me from the railing or the bath rim, making visible risk/benefit assessments about the safety of drinking or bathing in my presence. As I watch them watching me, I become curious not only about the sensibilities of different species – surprised to find that enormous birds with powerful beaks like cockatoos seem more nervous than little bullies like Noisy Miners or Wattlebirds – but also about the birds' perceptive capacities. The Miner flinches even when I am a long way away and the Bowerbird obviously still knows I am there as I peep motionlessly from

behind the laundry door, leading me to speculate about how far and in what ways the different species can see and how they might be processing movement, shadows and colours. Birds also watch me from the neighbouring trees. It is not uncommon for a bird to swoop down immediately after I have cleaned and refilled the birdbath. Clearly, they had been watching, unseen, from the gum trees. Sometimes a Noisy Miner will live up to its name and call out loudly to its flock when it sees me coming out to the deck, bucket in hand, alerting them to the upcoming fresh water.

The birdbath also obliges birds to watch other birds. Competition for fresh water brings about an ever-shifting acrobatics of intra- and inter-species swooping and vigilant suspicious watching. Some days there are patient line-ups of birds waiting on railings, wires and plants until their turn arises; other days bring sudden aerial attacks, aggressive beak snapping and snarky calling. Just when I think I've worked out the bird hierarchy (Brush Wattlebirds trump the bigger Red Wattlebirds; Noisy Miners trump Bowerbirds) some individual bird will break the rules, teaching me that the hierarchy is not entirely stable and – again – that context matters.

Finally, and moving away from the bath, it is also the case that birds teach us to see in new ways. Recently, my attempt at a mid-afternoon meditation pick-me-up failed, hijacked by the incessant shrill calls of a large family of Noisy Miners. Knowing from experience that they are never wrong – if they say something is up, then something is up – I went outside to see what the fuss was all about. There in a tree near our front door was a ringtail possum that I would not have seen had they not been divebombing and screaming. The Miners taught me to see something at my own front door.

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References

1. Ken Simpson, Nicholas Day, and Peter Trusler, *Field Guide to the Birds of Australia: The Most Complete One-Volume Book of Identification*, 4th edn. (Girraween, NSW: Lifetime Distributors/Penguin, 1993).
2. Lesley Head, Pat Muir, and Eva Hampel, "Australian Backyard Gardens and the Journey of Migration," *Geographical Review* 94, no. 3 (2004), 327.
3. Ayesha Tulloch, April Reside, Georgia Garrard, Michelle Ward, and Monica Awasthy, "Birdwatching Increased Tenfold Last Lockdown. Don't Stop, It's a Huge Help for Bushfire
4. Thom van Dooren, *The Wake of Crows: Living and Dying in Shared Worlds* (New York: Columbia University Press, 2019), 44–45.
5. van Dooren, *Wake of Crows*, 55.
6. van Dooren, *Wake of Crows*, 10.
7. van Dooren, *Wake of Crows*, ch. 1.
8. van Dooren, *Wake of Crows*, 12.
9. For example: Spencer Schaffner, "Field Guides to Birds: Images and Image/Text Positioned as Reference," in *Ecosee: Image, Rhetoric, Nature*, ed. Sidney I. Dobrin and Sean More (Albany: State University of New York Press, 2009) and Spencer Schaffner, *Binocular Vision: The Politics of Representation in Birdwatching Field Guides* (Amherst: University of Massachusetts Press, 2011).
10. Kenneth Sheard, "A Twitch in Time Saves Nine: Birdwatching, Sport, and Civilizing Processes," *Sociology of Sport Journal* 16, no. 3 (1999): 181–205.
11. Schaffner, "Field Guides," 97.
12. Schaffner, "Field Guides," 96.





The Iain McCalman Lecture 2021

Shallow and Deep Collaboration: Art, Ecology and Alexander von Humboldt

At the third annual Iain McCalman Lecture, held on 3 February 2021, philosopher Dalia Nassar dove into the world of 18th century botany, exploration, and ecology to find inspiration in tackling the environmental crises we face today.

“The environmental crisis is a crisis of knowledge, but also of sense and imagination—or, more specifically, of the separation of knowing from sensing, feeling and acting, and the separation of the natural sciences from the arts. It is a crisis that has to do with a chasm within us: where we know but do not really know. Where the kind of knowledge we cultivate is disconnected from the reality in which we live, or—better—where our very practices of knowing actively disconnect us from this reality.”

The Iain McCalman Lecture celebrates SEI co-founder and former co-director Iain McCalman’s dedication to fostering and pioneering multidisciplinary environmental research. The lectures aim to highlight the work of early to mid-career researchers working across disciplinary boundaries to impact both scholarship and public discourse.

Watch The 2021 Iain McCalman Lecture [here](#).

Dalia Nassar is a senior lecturer in the Department of Philosophy. She works on German romanticism and idealism, the philosophy of nature, aesthetics and environmental philosophy. Her current project focuses on a distinctive methodological approach to nature, which emerged in the late Enlightenment and Early Romanticism, and on the ways that this methodology can be brought to bear on current environmental questions and concerns.



How Can We Re-Learn the Art of Multispecies Cohabitation?

Humans have been designing spaces for and with animals and plants for thousands of years, so what has changed? A new exhibition by Feral Partnerships confronts this era of unprecedented biodiversity loss, and asks how architecture and planning can embrace the natural world once more.

By Feral Partnerships

Remains of Zoroastrian Dakhma temples where vultures facilitate the passage of the soul from the body. Yazd, Iran. Image via Shutterstock, ID:1929426209. Previous page: Las Pozas, a surrealist botanical garden in Xilitla Mexico by Edward James via Shutterstock, ID: 533385622.

“These architectures each begin to open up lost worlds to be reclaimed. Each is produced by communities of humans, animals, plants and others making their lives together.”

Feral Partnerships



“Our research and current exhibition, *The Architecture of Multispecies Cohabitation*, aims to shift the architectural discourse towards a more empathetic paradigm which refuses to single out human life as the subject and object of production.”

Feral Partnerships

Contemporary environmental crises have heightened the need for architecture to engage with issues of conservation and biodiversity. With nature-reserve models failing to arrest global ecological loss, and with construction continuing apace in many parts of the world, the question increasingly becomes: how might we secure biodiversity within the shared territories of human and other-than-human inhabitation?¹ Architecture and urban planning disciplines thus sit at a critical position for intervention in the interests of multispecies stakeholders. This position invites an expansion of our practice and a reconsideration of our ways of being in the world and in the built environment.

Modern architectural and urban theories have in fact long been animated by biological and ecological narratives, formulated to counter the ills of industrialised life. Many have argued, however, that such movements have tended not to include the other-than-human in their projects, but rather to legitimise more controlled and homogeneous spaces.² The architectural profession has largely continued in this tradition in its responses to environmental crisis, rallying around technical solutions: airtight envelopes, domestic and regional scale renewable energy production, a devotion to data gathering and monitoring, or biomimicry. Yet the ongoing complicity of urbanisation and construction in biodiversity loss raises important questions. Should we frame the escalation of human environmental control as a panacea or a problem? Which species are we planning to bring with us into a post-fossil fuel future? Or, to put it another way, what does it matter if energy sources and construction methods are clean and quiet if there are no living soils, insects, birds, fish or mammals left to flourish in their midst? Our research and current exhibition, *The Architecture of Multispecies Cohabitation*, aims to shift the architectural discourse towards a more empathetic paradigm which refuses to single out human life as

the subject and object of production.

Through modelling, drawing, photographs and film, across six conceptual frameworks, we present case studies from a research archive of built forms that encapsulate certain forms of commitment between humans and other species. This research has been global in scope with but an emphasis on Australian stories. Here are four examples.

Bush House

The nineteenth century saw a massive migration of plants, animals and humans across the planet. Botanical gardens across Europe invested enormous resources into collecting ‘exotic’ specimens, whilst familiar ‘Old World’ species were cultivated within ‘New World’ colonies.³

The bush house is one typology born out of this imperial ecological project. In many ways it was the adaptation of the glasshouse or conservatory — a Victorian-era climate controlled environment for the propagation of economic and ornamental plants — for warmer climates. Beginning as an exclusively horticultural space, detached from the home, it gradually became a place to teach children, linger and entertain (part of a patriarchal process that saw women as educators in the home).⁴ The maintenance and care of plants was important work for the colonial project of acclimatisation. However it also fostered the growth of feminist led botany practices and offered Victorian women a passage into an otherwise male-dominated global network of scientists.⁵ When set against contemporary high tech, hydroponic greenhouse production in regional areas, the bush house marks another pathway for sun-based gardening: developing from an essential tool for land development into a space of ornament, education and enjoyment.⁶

Kabata

Kabata is a unique refrigeration and cleaning system with spring water which has been used in Japan’s Shiga prefecture

for more than a century. Although many towns had similar systems, most have been replaced by municipal drinking water. However, Harie, a town with about 600 inhabitants on the margins of Lake Biwa, still has more than 100 houses with Kabata.⁷

Harie is located at the edge of an alluvial fan, where confined groundwater upwells, and can be brought to the surface with a pipe hammered into the ground.⁸ This Kabata spring is separated into several concrete water basins for different purposes under a wooden roofed sheds.⁹ Water from the upwelling used to be manually brought into the home for drinking and cooking, but today most houses have an electrical pump. A first basin is used for cooling and rinsing: the temperature of ground water stays between 13 and 15 degrees Celsius through the year, so in summer people store tomatoes, cucumbers and watermelons in the water, or use it to cool hot tea. A second basin is used to wash pans or other utensils. Most households have carp or other fish, which were once to be eaten, but now are kept as “cleaners” that eat leftover food particles on the pans.¹⁰ The Kabata users rely on the carp, as well as on other residents, to ensure that the water remains clean and usable, and the community has recently agreed to avoid the use of harsh cleaning chemicals, to protect the carp and the potability of the water.¹¹ The delicate commonality embedded in the use of this aquatic resource continues to keep the residents of Harie attentive to the health of their local ecology.

Dovecote

The Greek island of Tinos located in the Cyclades archipelago, contains over 1,000 highly ornate homes for pigeons known as Peristeriones. In feudal times, Venetian traders learned to domesticate the birds for their meat, lubricating fat, communication capabilities and nutrient rich manure used as fertiliser. Situated amidst arable fields reliant on their precious holdings, the dovecotes were



Dovecote Tinos, Greece by Marcin Bajer
via Flickr. Above: Kabata in Harie. Photo
courtesy of Biwako Visitors Bureau, Japan.

expressed as miniature castles drawing upon medieval Venetian motifs, used to express social status and function.¹² Eclectic triangular and diagonal openings face waterways where pigeons fed, returning with nutrient rich manure to boost crop yields. Horizontal planes protect the elevated openings from snakes and other threats from entering, while allowing many surfaces for pigeons to nest, sit and rest between flights.

While pigeon rearing remains a popular practice around the world, the dovecote and the nutrient soil it generated became redundant with the rise of synthetic fertilisers and pesticides. Those same chemicals enter into waterways via agricultural runoff, disrupting ecosystems and producing infertility in humans.

Dakhma

The Dakhma or Tower of Silence is a circular structure, usually at the top of a mound of sand or a rocky hill, designed to host the Zoroastrian funerary practice of Dokhmenashini. It consists of a raised plinth, open to the sky, where human corpses are placed for excarnation by avian scavengers. For Zoroastrians, Dokhmenashini accords the necessary reverence to the elements of earth and fire, which are not permitted to be contaminated by the demonic spirits believed to inhabit the dead body.¹³

The bodies are located in three concentric depressions, usually the outer circle for males, middle for females and inner for children. In between the rings there are raised footpaths for the pallbearers. Once the carrion birds have reduced the body to the bones, these are then sprinkled and washed with nitric acid and slaked lime, and the remains filtered by layers of sandstone, sand and charcoal at the base of the well so that any rainwater that flows into the ground is free of any contamination.

While no longer practiced in Iran, many Zoroastrians fled to India and Pakistan in the 800s where Towers of Silence in Karachi and Mumbai are still active today.

However, Indian vulture populations have dramatically declined due to the use of toxic drugs in the livestock they feed on.¹⁴ Increasingly the work of the vultures is being replaced ineffectually by solar concentrators.¹⁵ In Iran, thanks to a process of reintroduction, the sacred Huma vulture can now be seen flying in the northern mountains, though the practice of Dokhmenashini remains repressed. The decline of the Dakhma prompts reflection on human exceptionalism, which finds abhorrence in humans becoming food for others, and reveals the entangled forms of loss that result from species extinction.

These architectures each begin to open up lost worlds to be reclaimed. Each is produced by communities of humans, animals, plants and others making their lives together. What transformations might result from restoring inter-species commitments in the production of built environments that allow multispecies lives to flourish?

Feral Partnerships is a collaboration born out of frustration with professional and academic practice standards in architecture around ecological and biodiversity loss. They are interested in stories of entangled ecologies and world-making projects that meet at and within , the boundaries of whatever is perceived to be 'the built environment.' In opening up and expanding spatial and disciplinary boundaries, their practice explores how novel forms of commitment between human and other- than-human ecologies can emerge. Since its formation in late 2019, Feral Partnerships has been selected to co-organise a panel session at the Political Ecology Network (POLLEN) Third Biennial Conference, on the theme of multispecies co-habitation in architecture and the built environment. They have also been awarded a Culture & Animals Foundation 2020 grant, funding the research project: "The Architecture of Multispecies Cohabitation," which was exhibited at the University of Sydney's Tin Sheds Gallery in April 2021.

References

1. We follow in particular the incisive critiques and call for "convivial conservation" in Bram Buscher and Robert Fletcher (2020) *The Conservation Revolution*.

2. See for example, Adams, R.E. (2014). *Natura Urbans, Natura Urbanata: Ecological Urbanism, Circulation, and the Immunization of Nature*. *Environment and Planning D: Society and Space*, 32(1), pp.12–29.
3. *Science and Colonial Expansion: The Role of the British Royal Botanic Gardens*, Lucile H. Brockway, *Remaking the Land: The Acclimatization Movement and Anglo Ideas of Nature*, Thomas R. Dunlap, *Assembling Acclimatization: Frederick McCoy, European Ideas, Australian Circumstances*, Peter Minard, *They Dined on Eland: Story of the Acclimatisation Societies Hardcover*, Christopher Lever
4. *Climate and Garden Design in Queensland*, Dr. Jean Sim
5. *Gender and "Modern" Botany in Victorian England*, Ann B. Shteir
6. 4. Horwood, *Potted History*
7. Lindström, Kati. 2014. 'Internal and External Perception in Conceptualizing Home Landscapes: Japanese Examples'. *Geografiska Annaler: Series B, Human Geography* 96 (1): 58. <https://doi.org/10.1111/geob.12036>.
8. Gujo city, Report for spatial environment related with water, Gujo city, 2005 (Available in Japanese)
9. Ishikawa, S. and Hamazaki, K. A study about the construction of space of the traditional village by the spring in West Shiga – Harie District in Shinasahi-cho, Takashima city, Shiga, Dai Ichi Jutaku Institution, 2008
10. Ryu, Maki. *Typologies for Sustainable Water Use in Historical Japanese Towns*, 2016. Accessed on https://issuu.com/sorakara/docs/120326sfa_sorakara_small
11. Takashima City, Report on the preservation and use of water landscape in Takashima Harie and Shimofuri, 2010
13. Boyce, Mary (1979), *Zoroastrians: Their Religious Beliefs and Practices*, London: Routledge; Modi, Jivanji Jamshedji Modi (1928), *The Funeral Ceremonies of the Parsees*, Anthropological Society of Bombay; Wadia, Azmi (2002), "Evolution of the Towers of Silence and their Significance", in Godrej, Pheroza J.; Mistree, Firoza Punthakey (eds.), *A Zoroastrian Tapestry*, New York: Mapin
14. Swan, Gerry; et al. (2006), "Removing the threat of diclofenac to critically endangered Asian vultures", *PLoS Biology*; ; Harris, Gardiner "Giving New Life to Vultures to Restore a Human Ritual of Death" *"The New York Times"*, 29 November 2012.
15. Srivastava, Sanjeev, "Parsis turn to solar power", *BBC News South Asia*



Designing A Multispecies Future

How do we decide which species deserve to be valued and included in human spaces? Following *the Architecture of Multispecies Cohabitation* exhibition, SEI Honours Fellow Sam Norman muses on the turbulent past and future of our relationship with the more-than-human world.

By Sam Norman, Honours Research Fellow,
Sydney Environment Institute

The Architecture of Multispecies Cohabitation exhibition by the Feral Partnerships collective is an imaginative space full of story-telling capabilities; stories of our past, present, and future, with the focus on the coexistence between human and more-than-human beings within shared spaces.

There is a smooth, clean aesthetic to the exhibition, which plays well to convey the deeper messages behind it. Warm lights blanket the artefacts displayed, illuminating the sleek white walls and crunchy beige haystacks alike. Artistic renderings of spaces of multispecies cohabitation are placed on walls in flat 2D prints – white canvas with black lines. A variety of medium are on display through the exhibition, including a compilation of video essays from architecture students unpacking stories of multispecies cohabitation. The audience is invited to view these stories on an impressive couch made of hay bales.

This merging of the uber-sleek modernity with the rugged past projects beyond the aesthetic realm of the exhibition, and welcomes the audience to actively engage with a broader theme and purpose of it. This is a space for reflection of human – nature relations: of the past, where alternative relations existed; of the present, where the Anthropocene continues to dominate life on Earth; and of the future, where better relations can be imagined and hoped for.

The audience is invited to reflect on the spaces which we use for home, work, and recreational fun, and imagine how more-than-human beings can be incorporated into the picture. Currently, within the urbanised ways of living perpetuated by the hegemony of Western culture, multispecies cohabitation has a shallow execution. Some animals are accepted in shared spaces

with humans for companionship, while others are rendered as foreign entities to be never seen in the foreground, but hidden out of sight to belong in ‘the bush’ or ‘nature.’ Meanwhile, flora and trees are arbitrarily granted life and death by humans on whether they fit in with the urban design plans or not. An underlying factor to these relations between human and more-than-human beings come from an understanding of belonging.

Having interacted with this exhibition at this particular point in my life, where I am an Honours student who is concerned with Multispecies Justice and how more-than-human beings can be recognised as political actors, has evoked an intimate response from me due to the resonance with my research. Multispecies Justice (MSJ) is concerned with addressing the injustices experienced by more-than-human beings, including animals, trees, and elements. Ideas of justice and habitation intersect with the notion of belonging in multiple senses. A being recognised as not belonging, or belonging to a lesser degree, is subject to further injustices, in the endeavour to further draw the line between insiders and outsider. This cuts across both species, that is human – nature relations, but also within humanity, with power dynamics present across multiple facets of identity (race, gender, class, ability).¹ The physical environment constructed is reflective of these attitudes, accommodating to insiders, and hostile to outsiders. The metal spikes on buildings to stop birds from sitting are akin to the bars placed on public benches to deter homeless people sleeping on them. Architectural designs both inhibit attitudes and contribute to ongoing power dynamics and relations between beings, enforcing the constructed notion of who belongs and who does not belong. As has been heralded by countless

voices before myself, and sadly, will seemingly be continued to be said for the foreseeable future – we are facing mass climate breakdown. The Anthropocene is not ‘just another age’ or a neutral phase of geological history.² Rather, it is a phenomenon that has been produced, and continues to be produced, by specific attitudes and norms of human domination over nature.³ Such way of being human is not natural, or neutral either, but reflective and co-constitutive of the economic paradigm which arose while the natural world was impacted – capitalism. Hence why some scholars prefer to call this geological age the capitalocene.⁴

While I am reflective in this piece on the intersections of the Anthropocene with attitudes of domination towards more-than-human beings, it is important to recognise that these attitudes intersect across other dimensions, such as racism, sexism, colonialism, and ableism.⁵ A multispecies turn is critical now more than ever. With human activity having contributed to climate breakdown, the Sixth Extinction, and mass displacements of survivors to urban environments, a shift in human attitudes can be a way forward. The acceptance and practice of the fact that humans are not the centre of the world, or the only actors in the game, is a start to repairing human – nature relations. There are opportunities to flourish for humans and more-than-human beings alike, as they co-emerge in beautiful assemblages. This can come from a shift in understanding static notions of belonging, with fixed insider and outsider identities, to a sense of co-becoming, where there is recognition of the relational impacts beings have on each other’s identities and lived experiences.⁶ This rebuilding of ties with the world can be reflected within the architectural designs of our environments. The journey to reimagining human – nature

relations need not be one which strains the imaginative capabilities of humanity. In the past lies answers. The past holds both painful and hopeful truths for the current situation which we hold. Soberly reflecting upon the development of the modern world for humans, at the experience of all other life forms, is a guilt trip that needs to be addressed. Turning a blind eye only perpetuates the injustice; it only continues to silence the victims. As more and more victims become silenced out of existence, the irony is that humans are silencing themselves out alongside them. The realisation of co-dependency on the natural world, on more-than-human beings, ought to evoke change.

Indigenous philosophies of kinship with more-than-human beings present an interesting example in which the co-dependency of species is recognised in past, alternative relations between humanity and nature.⁷ There is a recognition of the agency and world-building capabilities of more-than-human beings, with a focus on the flourishing of the community over the individual. Each being is recognised, in their own right, as co-emerging and co-becoming, within a beautiful assemblage which create a whole

that is greater than the sum of its parts – life.

The story for our future yet, is not determined. Spaces like the Multispecies Cohabitation exhibition are important to remind us to reflect about our current practices, of how the current paradigm need not be carried on into tomorrow, and of what is ultimately at stake here. It presents hope, which is a form of world-building.⁸ World-building with our more-than-human partners. It starts with a physical incorporation of more-than-human beings into our environment, and recognising that the world is a shared space for all beings, not just for humans to call home.

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References

1. Weitzenfeld, Adam, and Melanie Joy. An overview of anthropocentrism, humanism, and speciesism in critical animal theory. *Counterpoints* 448 (2014): 3–27.
2. Swanson, Heather Anne. Anthropocene as political geology: Current debates over how to tell time. *Science as Culture* 25, no. 1 (2016): 157–163.
3. Swanson 2016
4. Moore, Jason W. The Capitalocene, Part I: on the nature and origins of our ecological crisis. *The Journal of peasant studies* 44, no. 3 (2017): 594–630.
5. Calarco, Matthew. *Zoographies: The question of the animal from Heidegger to Derrida*. Columbia University Press, 2008.
6. Bell, Sarah J. Co-becoming with angophora: performing more-than-human belongings in Ku-ring-gai Chase National Park. *Social & Cultural Geography* 20, no. 5 (2019): 605–629.
7. Salmón, Enrique. Kincentric ecology: indigenous perceptions of the human–nature relationship. *Ecological Applications* 10, no. 5 (2000): 1327–1332.
8. Anderson, Ben. Transcending without transcendence: utopianism and an ethos of hope. *Antipode* 38, no. 4 (2006): 691–710.



Imagining Otherwise: Writing the Future

Danielle Celermajer and James Bradley muse on the critical role of writers in imagining futures beyond the climate crisis, beyond the human-centric, and beyond the individual.

By James Bradley, Honorary Associate, Sydney Environment
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“How can we story the experience of beings other than humans in ways that convey their texture and complexity, as well as their radical difference, especially when the languages we have at hand were crafted for humans alone?”

James Bradley & Danielle Celermajer

Some years ago, Amitav Ghosh suggested that the difficulties we are experiencing in facing the unfolding reality of a climate changing world are not merely the result of deficits in information. We are, he said, experiencing a ‘crisis in imagination’.¹ The term’s brilliance lies in part in its multivalence. There are so many aspects of so many worlds that ‘we’, the human beneficiaries of colonialism and capitalism, cannot imagine. And yet, creating the possibility of imagining otherwise is precisely what writers, like other artists, set out to do. What might be written, and in what form or genre, to open the imaginings needed for this moment?

The difficulty of imagining worlds thrown off their axes is in some regards not new. In the mid-20th-century, when she was trying to comprehend a world torn asunder by Totalitarianism, Hannah Arendt lamented the impossibility of looking to the past for guidance. In a world where the “pillars of the best-known truths” had been smashed, she argued, we could neither orient nor steady ourselves through reference to the past.

How much truer is this today, when the pillars that are being smashed include the rhythms and forms that constitute the basic conditions of our earthly home? How much truer when we confront evidence demonstrating with the facticity of mathematics, that the lives we have been living are the cause of the destruction of the conditions that have made this planet hospitable to ours and others’ lives? How much truer when we are learning that humans are not the only ones who think and feel and form complex relationships and reach for the future of those who come after? How much truer when we wake up and recognise that the beings we have treated as resource have worlds as marvellous and rich as our own?

Such creeping realisations feel impossible not only to imagine, but to hold in our bodies. The emotions they stir, and what they would seem to demand of us can exceed our current capacities. The sheer vastness of what we would see and then feel has us turn away. Worlds

that came into being over millennia to become the complex forest homes to myriad forms of symbiotic life, stripped away, concreted over and turned into soulless office blocks, production plants and apartments. Oceans whose depths have been teeming over aeons with beings and relationships, flows and forms, now saturated with the plastics that we do not even notice wrap life in late industrial capitalism, and permeated with the intolerable racket of ships that underwrite the passage of ever more stuff. Vast sheds crammed with chickens, cows and pigs, themselves crammed with antibiotics and foodstuffs designed to grow them at the precise time size ratio to maximise profit, before they are transported to factory floors that process their deaths like car parts. And the complex dynamic lifeworlds that Indigenous peoples and their more than human kin wove since time immemorial, superseded in a market transaction by open-cut mines to fuel the numbed lives propelled towards a fantasy of endless progress towards the ends of all of these worlds.

All of us who feel these precipices are searching for ways of being present to these unimaginable truths, and thence to transform ourselves and our forms of life so that it might be otherwise. For writers, that search has us revisit the unique power of stories to weave worlds and transport readers beyond the boundaries of their experience. And yet, the standard modalities of storytelling to which we turn are, like Arendt’s past, inadequate to the imaginations required. How can we story the experience of beings other than humans in ways that convey their texture and complexity, as well as their radical difference, especially when the languages we have at hand were crafted for humans alone? How do we shatter the myth of the individual and the concentration of subjectivity in the mind of the individual within grammars that insist on a clear demarcation between subjects and objects? How do we write the torture and killing of beings other than humans on unfathomable scales without straying into the pornographic, especially in the context of a culture industry that has so thoroughly commodified violence?

Similar questions shadow the ways we imagine both past and future. Faced with the inhuman scale and what Ghosh describes as the “insistent, inescapable continuities” of the climate crisis, writers and artists are being forced to find new forms and new modalities capable of making its immensity and complexity comprehensible. Often this demands a decentering of human concerns, or new formal strategies capable of representing different or deranged temporalities. But it also requires writing that engages with the violence, both fast and slow, of environmental crisis.

In so doing such writing must make that which is often hidden visible, drawing into the open not just the violence itself, but its deep roots, and the mechanisms that obscure and efface it. As Kathryn Yusoff has observed, “the Anthropocene might seem to offer a dystopic future that laments the end of the world, but imperialism and ongoing (settler) colonialisms have been ending worlds for as long as they have been in existence. The Anthropocene as a politically infused geology and scientific/popular discourse is just now noticing the extinction it has chosen to continually overlook in the making of its modernity and freedom.”

These questions are further exacerbated by our culture’s seeming inability to imagine its way past the crisis that has enveloped it. Or, as Frederic Jameson famously observed, it is easier to imagine the end of the world than the end of capitalism. Yet when capitalism occupies what Mark Fisher once described as the horizons of the thinkable, what is the role of the writer in imagining and articulating alternatives?

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James Bradley is an Australian author and critic. His books include the novels *Wrack* (1997), *The Deep Field* (1999), *The Resurrectionist* (2006) and *Clade* (2015), a book of poetry, *Paper Nautilus* (1994), and *The Penguin Book of the Ocean* (2010). His books have won or been shortlisted for many major Australian and international literary awards, and in 2012 he won the Pascall Prize for Australia’s Critic of the Year. His latest novel, *Ghost Species* (2020), is published by Hamish Hamilton.

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References

1. Amitav Ghosh, 2017. *The Great Derangement: Climate Change and the Unthinkable*. Chicago Illinois: University of Chicago Press.
2. Hannah Arendt, 1968. “On Humanity in Dark Times: Thoughts about Lessing.” In *Men in Dark Times*. New York: Harcourt, Brace & World, p. 5.
3. Kathryn. Yusoff, 2019. *A Billion Black Anthropocenes or None*. University of Minnesota Press.
4. Fredric Jameson, 2005. *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions*. New York: Verso Books.

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The magazine collates cross disciplinary responses to the critical environmental issues facing us today.

Contributions come from students, artists, scholars and activists, working locally and across the globe, to investigate the physical, social and cultural dimensions of climate change impacts.

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