

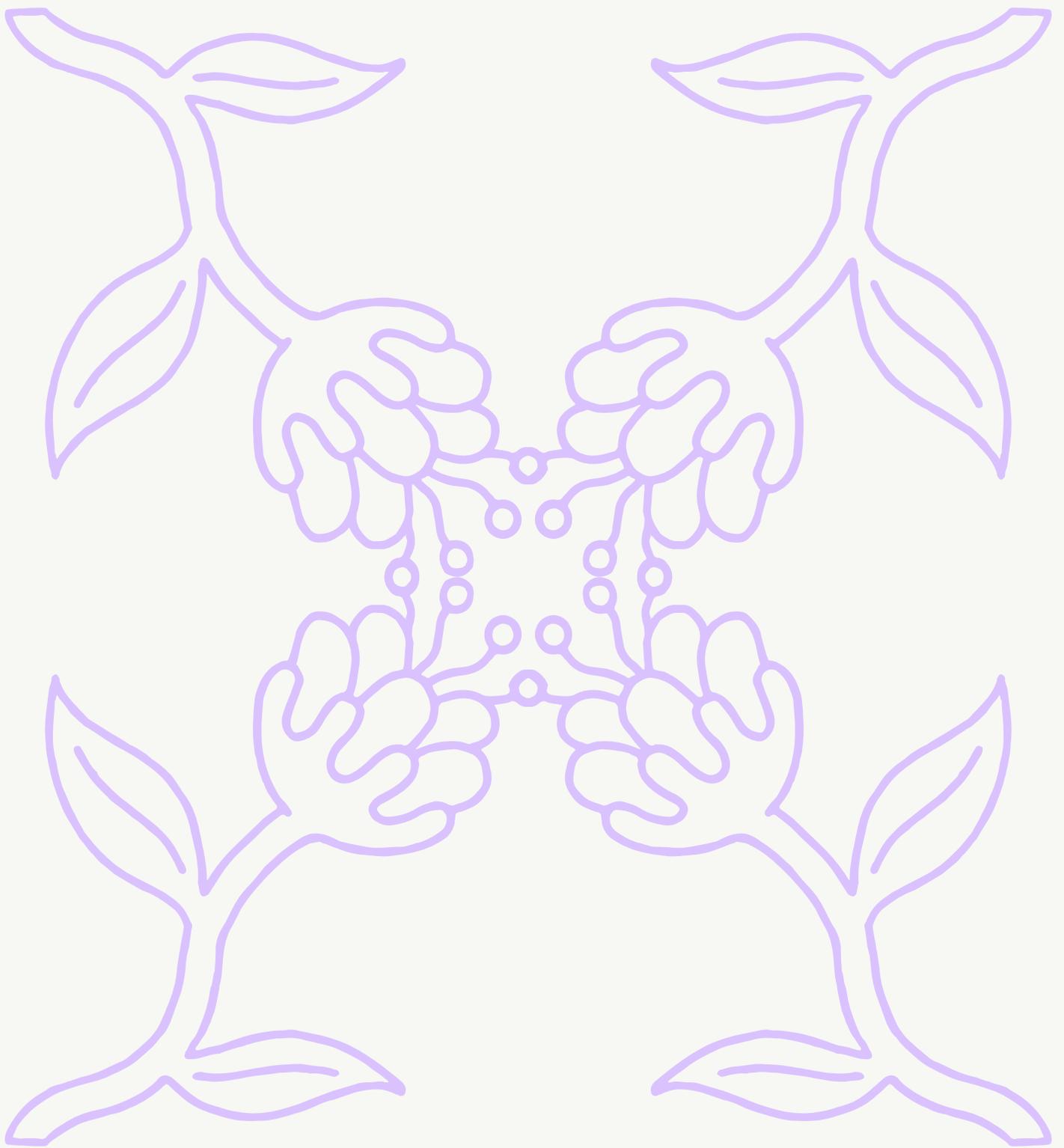
ART & HERBARIUM

*Creative Ecological
Investigations:
Project #1*



Published by *Unlikely*

ART & HERBARIUM



ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the people of the *Woi Wurrung* and *Boon Wurrung* language groups of the eastern *Kulin* Nations on whose unceded lands we work, live and play. *Unlikely* respectfully acknowledges their Ancestors and Elders, past and present.

We must always remember that under the concrete and asphalt, the land, sea, and waterways were, and always will be, the traditional lands of the First Nations Peoples.

Acknowledgements

This unique collaboration between artists and science demonstrates through its form, and through practice as well as reflection that arts and sciences can meet with productive results. Creative Ecological Investigations shows how modes of scientific knowledge and of creative practice continue to be intertwined in this most challenging of centuries. The text argues—through instructive examples and a full history of the collaborative and creative processes involved—for a more open and mutually sympathetic engagement of poetry, art and science in contemporary culture.

This project was made possible through the
Copyright Agency Cultural Fund.

Tom Bristow, Jan Hendrik Brüggemeier and Danielle Wyatt would like to thank the following people and organisations that made the *Creative Ecological Investigation #1: Art & Herbarium* exhibition possible:

University of Melbourne Herbarium Curator, *Dr Jo Birch*, and Director, Associate *Professor Andrew Drinnan*, for their enthusiasm for the project and generosity in sharing their knowledge of the Herbarium collection with the artists and project team.

The Art & Herbarium artists, *Bonny Cassidy, Elizabeth Hickey, Harry Nankin, Jessica Hood, Josh Wodak, Rosalind Hall* and *Tom Bristow*, who engaged with the Herbarium collection with such imagination, sensitivity and intelligence.

Carlton Connect Creative Community Animator, *Dr Renee Beale*, for her support and guidance throughout the project.

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Ian Armet and *Jessica Baker, La Trobe University*, for their technical support.

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EDITORIAL TEAM

*Tom Bristow, Jan Hendrik Brüggemeier
and Danielle Wyatt*

GRAPHIC DESIGN

Kaitlyn Chai

CONTRIBUTORS

*Tom Bristow, Jan Hendrik Brueggemeier,
Bonny Cassidy, Rosalind Hall, Elizabeth
Hickey, Jessica Hood, Harry Nankin, Josh
Wodak and Danielle Wyatt*

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CONTACT

Unlikely publishing
email: info@unlikely.net.au
web: <https://unlikely.net.au>

Join the Unlikely mailing list at:
<https://unlikely.net.au>

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The University of Melbourne Herbarium

The University of Melbourne Herbarium (MELU) is the oldest (1926 onwards) and largest (c.150,000 specimens) university herbarium in Australia. It is an active research and teaching collection of international significance, housing specimens of all major plant groups (e.g. flowering plants, algae, lichens and mosses) and fungi. The herbarium includes historical (e.g. Banks and Solander collections dated to 1770) and contemporary (University of Melbourne faculty and students collections dated to 2016) specimens. Significant collections document the extensive field work and research strengths of past and present School of BioSciences faculty; MELU houses many algal specimens collected by *Dr Sophie Ducker*, moss specimens collected by *Dr George Scott*, and eucalypt specimens collected by *Professor Pauline Ladiges*.

Research at the herbarium focuses on describing and understanding biodiversity. Faculty and student research focuses on inferring evolutionary relationships, quantifying morphological and genetic diversity, investigating plant community dynamics, and mapping changes in species distributions. Herbarium specimens facilitate the generation of genomic, chemical, morphological, ecological and spatial data. Data from herbarium records are provided to national and international biodiversity data repositories through Australia's Virtual Herbarium and Atlas of Living Australia, which feed into international biodiversity data portals such as the Global Biodiversity Information Facility.

The herbarium provides extensive teaching opportunities to graduate and undergraduate students across a range of University of Melbourne Faculties. Training is provided to volunteers and interns in the current fieldwork protocols including the preparation of voucher specimens, data collection in the field, and scientific nomenclature. Students also learn about management of natural history collections including protocols for conservation, databasing, accessioning and digitisation of specimens. We exchange specimens on loan with national and international scientific institutions for research purposes.

Dr Joanne Birch is the Curator of The University of Melbourne Herbarium (MELU). Her research investigates evolution and biogeography of native Australasian plants including grasses (Poaceae) and Asparagoid Lilies in the order Asparagales.

List of Works

From the Curators

(01)

Tom Bristow & Elizabeth Hickey

(02)

Harry Nankin

(03)

Rosalind Hall

(04)

Josh Wodak

(05)

Bonny Cassidy

(06)

Jessica Hood



CREATIVE ECOLOGICAL INVESTIGATIONS: JOURNEY INTO THE HERBARIUM

An Introduction from *the Curators*

In 2011, I was introduced to the Copyright Agency's Cultural Fund, which supports projects at the art-science interface while promoting new talent in Australia's cultural sector. I was in rural New England, New South Wales, at the time; a place highly literate in the politics of British settlement and its impact on the environment. Later, I was asked to contribute to Australia's first Bachelor of Ecology degree at the local university. After some reflection I wanted to bring a cultural perspective to science, to think of the discipline as one form of scientia (knowledge) and to offer a cultural history of the concept of ecology for students to learn how this inquiry into relationships and dependencies manifested into a university discipline. To do this I turned to local resources – the historical archive of pastoral settlement in the area, and the local herbarium – to bridge the arts-science divide. This pedagogical opportunity helped me turn back to the earlier creative opportunity that I had seen, and thus the seed of 'creative ecological investigations' was planted. Over the course of the last two years, myself, *Jan Hendrik Brueggemeier* and *Danielle Ray Wyatt* have turned this project into a reality in Victoria.

Creative Ecological Investigations #1 is an art project placing a multidisciplinary selection of artists in contact with the University of Melbourne Herbarium to respond creatively to its natural and cultural collections. Artists were selected by a steering committee for their capacity to work on scientific issues and for demonstrating vivid communication shaping a 'pedagogy of feeling' that we could point towards the archive to build new kinds of relationships with natural collections and the multispecies worlds they index. In addition to reflecting on the ways that our natural history collections are implicated in discourses of colonialism, nationalism, patriarchy and the settler colonial project, the CEI team wanted artists to think about the new possibilities that emerge when natural collections are digitized and networked, and to respond to the ways that archives can be felt as sites of emotion and emotional histories. Ordinarily, we might not think of an herbarium as an archive. We might not think of it as one of many memory chips, like a library, on the motherboard of our university campus. But it is. And this premise, to think of 'memory' in this broad, cultural context, was set as the primary conceptual basis for artists to engage with the collection, first established in 1926. The herbarium is home to over 150,000 specimens including the collections of Sir Joseph Banks and Dr Daniel Solander on Lieutenant James Cook's first voyage around the world in the barque *H.M.S. Endeavour* (1768-1771).

Bonny Cassidy's lyric essay, 'Grounds', is a compelling inquiry into fungi and the way they are represented. With no fixed sequence, fourteen pages of 'images of thought' (following the concept developed by *Giles Deleuze* and *Felix Guattari* in 1972) invite the reader to enter the scene and observe, and to take ownership of the ideas that are to be dug up out of the dense, 'invasion myths' or rhizomatic pedagogy present in the work. While *Cassidy's* texts embody some of the ways that image and metaphor can send out roots and shoots for our imaginative learning, *Tom Bristow's* graphic novel, 'Journey into the Herbarium' works against the lyrical impulse in its sparse, literal prose beautifully illustrated by *Elizabeth Hickey*. *Hickey* takes *Bristow's* short story of a woman arriving in the very gallery in which you are now standing (on Swanston Street in Melbourne) and amplifies the emotional and critical engagement with this space to reflect on what the protagonist sees or doesn't ordinarily see in her daily life. This journey includes thinking differently about her work place, the streets of Melbourne, her diet and her connection to history all made possible through the biological and cul-

tural connection to botany as triggered by her chance visit to LAB14/ Carlton Connect. *John Ruskin* coined the phrase 'pathetic fallacy' in *Modern Painters* (1843-1860) as a pejorative indicator of sentimentality whereby objects are personified based on the emotions of a viewer, common in late eighteenth century poetry. *Harry Nankin*, much like *Alfred Lord Tennyson's* exploration not of the projection of human feelings onto the natural world, but of a scientific comparison of objects in terms of human engagement, makes an important qualification to our normative definition of sense perception. Nankin's cover illustration to *A Cultural History of Climate Change* (2016) embodies what he calls 'the ecological gaze': a psycho-socially conditioned aesthetic stance informed by the insights of ecology in the context of epistemological and ethical human interest. In 'In defence of the pathetic fallacy', a tremendous recording of the nocturnal shadows of Belah trees (native to inland eastern Australia), *Nankin's* ecological gaze reminds us just how useful a tool pathetic fallacy might be in the light of ecological crisis. Such a stance requires us to put the anthropocentric issue of affective projection and emotional connection to one side. With this subjective bridge (that is but a shade away from cross-species empathy) highlighted and placed on pause, the critically awakened landscape frame opens up to a space where we find ourselves beginning to think of the spirit of place that cannot be stirred inside us if we are indifferent to nature. Two sound pieces exploring ideas of degradation and decay constitute *Rosalind Hall's* contribution to CEI#1. Hall's interest in the herbarium's preservation process and the effect of time on specimen's DNA quality informed her recording technique and mix, whereby the decay of life is registered in warm unfolding layers of acoustic recordings that compose self-organising loops of subsiding tones. Mirroring these two soundworks are two framed photographs by *Jessica Hood*. *Hood's* images refer to collections from Burnley Gardens and Maranoa Gardens; they are part of a larger environmental heritage project, an online platform enabling visitors to place comments on the images and the specimens that they know. The conceptual starting point here is to work beyond the categorising and recording practices of the herbarium. Long lists of species sit underneath ominous images of fake flamingos of the community gardens at Burnley, and the stockinged gums of Maranoa, one of Australia's oldest native gardens. These combinations of image and text create a floating world disconnected from herbarium and gallery alike. *Hall's* interstitial world in which social and cultural narra-

tives can begin to take place qualifies the scientific narratives of the herbarium that *Josh Wodak* engages with in the second sound installation for CEI1. *Wodak* has spent the last year researching pine seeds for his work, 'seed in space / sound in time' which directly references the NASA and Sydney Botanic Gardens Trust project, 'Seeds in Space' in which Australian native seeds were sent into space for the first time. Indirectly responding to the CEI prompt to think about the use of our herbarium's digitised collections for new applications, *Wodak* draws from the data recordings of the temperatures of five Wollemi Pine seeds experienced over the six months of the project. The seeds were collected at Wollemi National Park, and they travelled to Mount Annan Botanic Garden Seed-bank, NSW, the Millennium Seed Bank, London, the Global Seed Vault/ Doomsday Vault, Norway, and to the International Space Station, Low Earth Orbit. In LAB14, visitors are exposed to data sonified into five sound channels, with each channel representing an individual seed's journey whereby sound samples are played back at a frequency corresponding to the temperature the seed is exposed to at a point in time.

LAB14 is a perfect space for our creative investigations for it has highlighted the value of social, cultural and community consciousness while contributing to Victoria's compelling arts infrastructure combining creative spaces with life sciences initiatives. The exhibition 'Journey into the Herbarium' runs from 27 February to 17 March, 2017. The future of the former Royal Women's Hospital that is the exhibition space at LAB14/ Carlton Connect will include the Science Gallery Melbourne, part of an exciting global initiative further inspiring people through the collision of arts and science.

On behalf of the CEI#1 team, we wish them well.

Dr Jan Hendrik Brueggemeier (RMIT University)

Dr Danielle Wyatt (University of Melbourne)

Dr Thomas Bristow (James Cook University)





HERBARIUM No.1

JOURNEY INTO THE HERBARIUM: A GRAPHIC NOVEL

Text by *Tom Bristow*

Illustrations by *Elizabeth Hickey*

CONTEXT

The conditions for emotional engagement with our planet appear to be warped or besieged by an intractable disparity: the consequences of massive environmental transformations on one hand, and the limited means we have to counteract them on the other. ‘Journey into the Herbarium’ implicitly points to the problem of climate change and its impact on indigenous species, more specifically to plants, and yet its more general and explicit aim is to locate a human within the entangled histories of plants and humans. There was no pure Edenic time when all species were native to their dwelling places; it is not possible for us to rewild the planet to restore an ideal ecological equilibrium. Equally, we are aware that species depletion is currently many hundred times the ‘normal’ background rate, and this is not right; we are aware that non-native species have considerable, sometimes unfathomable, impact on the ecosystems to which they have been transported – sometimes by humans, sometimes by other means. We know that our species should only be about one twelfth of total population of whales. But these ecological insights are often reduced to statistics and the world of facts. We are

aiming for something more affective than numbers. Our story actively respects and responds to the difficulty of connecting the worlds of individuals to the life of the planet. More discretely, the novel examines ways to calibrate personal symbolism and emotional life stories to the larger arcs of geological time and species thinking. Marxina tries to marry her world of the bookshop to the trees outside; as the story unfolds and her knowledge of environmental history improves, her sense of urgency echoes the critical response to the acceleration of ecological crises.

The Anthropocene marks a moment in history when the human species acknowledges that it has become a geological force. One consequence of European colonialism is the alteration of plant life through the clearing of land, displacement of species and the creation of invasion ecologies. Trees and plants are good indicators of this impact and the damage done. Marxina tries to find herself within the space-time fabric of Melbourne as she knows it; however, a chance encounter with an arts-science exhibition in a public gallery triggers a new sense of understanding this place that brings the colonial spectre to the foreground. The city begins to unfold into a curious palimpsest registering indigenous settlement, colonial settlement, and the changing flora and fauna of the landscape. Marxina tries to map her sense of the contemporary city to the history of the continent; she seeks a mode and genre that is suitable both to address the problem of representing such a complex situation, and to clarify one of the ways by which humans are connected to the world around them. As J. H. Prynne has written: 'look at the plants, the entire dark dream outside.'

CRITICAL THINKING

Scholarship in the Environmental Humanities has collapsed the humanist distinction between natural history and human history. This means that 'we' humans are inextricably linked to planetary evolution: in no way are we separate from earth life; in no way is 'the environment' external to us, no matter how distant other things on earth may seem to us in terms of time or space. Museums and galleries have responded to this cue by reflecting on their capacity to represent human agency as a geological force. Behind these responses there lies a political tension, and

a new concept of agency. Firstly, the cultural politics of emotions in response to the idea of memory as recollection or witness of a forgotten past is quite different to a set of politics and emotions mobilised in response to memory that is used to imagine or to create a present or future community. Marxina travels to the University of Melbourne's herbarium, which contains historical plant collections including specimens from Joseph Banks and Daniel Solander – the onboard scientists of Captain James Cook's expedition vessel, the Endeavour (1768-1771). Tracking the transit of Venus over the Southern Ocean was the primary motivation for Cook's voyage, as this would offer an advantage to the British Empire over its rivals in terms of controlling the oceans and discovering new colonies. *A Journey into the Herbarium* implicitly references that very motivation, while it also explicitly refers to the secondary motivation of the expedition: to study and make collections of all the flora and fauna encountered on the journey. Many new species were 'discovered', including plants that needed fire to propagate their seeds – a fascinating discovery to European minds. Thus, the herbarium represents the past in a number of ways; some of the species from this past have not survived into the present. Does this unique archive, therefore, suggest a series of trends in Australian plant life, and do these trends portend a reduction in biodiversity and numbers of species in the future of life on this continent? The herbarium's digital collection is one contemporary resource that is connected to a number of continental and global databases of species and species distribution, which can help to answer that very question.

Secondly, with respect to 'a new concept of agency', this story clearly places human motivation and character development at the centre of the narrative, and yet it wishes the reader to work beyond this construction of subjectivity; that is to say beyond subjectivity in isolation and working towards an 'ecological self' to quote Freya Mathews. To begin with, Marxina's objective to reach work on time is derailed; in taking the wrong tram both Marxina's agency is decentred for a moment, and her goal-oriented trajectory is diluted. Secondly, the idea of chance (or misfortune in this instance) opens up a mode of wayfinding that connects to alienation by placing an obstruction squarely in the path of human instrumentalism: ultimately, we are dependent upon other things. Thirdly, as a tonic to anthropocentrism, plants are seen moving through space; fire colours a number of the comic's frames; bats – representing seed distribution through cross-species 'collaboration' –

have a presence alongside other ‘non-humans.’ This rich and diverse tapestry of life, each species owning its specific set of motivations, survival instincts and consequences, is to be read alongside and within Marxina’s actions. Intimacy and interdependency are key critical themes in this story. These themes write against a radical separation between human and world, and mind and body, inherent to dualism. Such intimacy leads to and develops from the understanding of and experience of human life distributed in relational space. The fabric of corporeality in Journey into the Herbarium registers an earth-life nexus known as the more-than-human world. This world has two distinct features, which are relevant to the Anthropocene: first, the non-human world, on which humans are absolutely dependent (plants for example), has agencies of its own; second, we are only fully human when in contact with what is not human. These two features are a central starting points for humanities scholars working with the problem of climate change, and they are fundamental to an alternative set of values that critiques the industrial and post-industrial machines that have taken us to the brink.

THEMATIC CONTENT

It is not necessary to go back in time to respect the sense of agency I have outlined above. Just look outside. However, because our story is set in a colonial city (Melbourne) that prides itself in its cultural institutions (amongst other things), one of which is Australia’s largest university herbarium, I chose to connect the idea of ecological memory to human history. This decision to fuse a natural archive with the ongoing impact of human agency viewed from a historical vantage point seemed real and important; it was made even more tangible by the evidence, or historical record, of Joseph Banks’ presence on the scene. The conversations between myself and Elizabeth during preparation for the LAB14 exhibition (in which a selection of drafts for the novel were to be shown) regularly touched upon the lack of cultural narratives for Australian colonial history. Neither of us are Australian. We wanted to sensitively respond to this occlusion while not conflating nature and humans. And so plant life in our beautiful city of Melbourne spells out a dark tale: a city named after a British Prime Minister who suppressed rural and trade union movements; first declared as a part of the whole of Australia under ownership of the British Crown by an illegal treaty abusing

Aboriginal Australian's of their rights (the document is now seen as the only land use agreement that recognises European occupation of Australia). But this Australian context for a larger imperialist project sometimes named 'economic botany' is only the backlight to a number of more abstract and universal themes we wished to explore in the novel.

They are as follows:

- **Chance:** Marxina gets on the wrong tram to work, and by this fortune she comes across the LAB14 exhibition where there are plants and artistic responses to the analogue and digital collections at the university herbarium. This is the moment when our protagonist's plant literacy first develops. Later, she wishes to get 'lost' in the virtual world of the internet, so that she might come up against a body of evidence from the natural world that can help her to synthesise the limited knowledge of plants that she has gained from walking the streets of the city. What role chance and what role design in the construction of our environments?
- **Memory:** Is the herbarium archive a living memory of the planet's biodiversity? How might Marxina retrace her steps to LAB14 to reawaken ideas first encountered during the chance incident that finds her in a gallery of plant specimens alongside narratives of seed distribution patterns linked to climate change?
- **Imagination:** How might Marxina synthesise her findings in Australian natural history and British colonialism in such a manner to communicate to a range of publics who are interested in developing scientific literacy through other means than textbooks and laboratories?
- **Knowledge:** Is Marxina, LAB14 or the herbarium the most influential knowledge holder? How, in each case, is knowledge linked to curiosity?

GRAPHIC NARRATIVE

In terms of characterisation, we know very little about Marxina. Her life, while central to the story, is incidental to the larger narrative arcs the novel wishes to explore. What she says and what she does is important, and we do see her develop from a bookseller into an artist once she is inspired to tell a story; however, how she is seen by the narrator is slightly more important: as an agent within the more-than-human world. I borrowed the chance incident and the lack of background information on the protagonist from Paul Auster's novel, *City of Glass*, brilliantly rendered into graphic form by Paul Karasik and David Mazzucchelli. My central figure, not unlike Auster's Daniel Quinn, is taken out of their life-world and placed into a new context that is not of their making; Marxina is somewhat out of focus owing to the new version of the 'place' she finds herself in: a new Melbourne inseparable from colonialism and its aftermath, and everything in Melbourne in this light begins to be coloured by the interdependency between human and non-human worlds. An attempt has been made to engage readers on a personal, individual level, by having a single protagonist; to identify with Marxina is to identify with the problem of addressing environmental crisis by finding your own unique way through the complexities of the problem. This wayfinding hook is extended to the issue of developing raised consciousness and the concomitant quest narrative is aimed towards developing the sub-theme of the more-than-human world over and above any attempt to secure a politics of subjectivity.

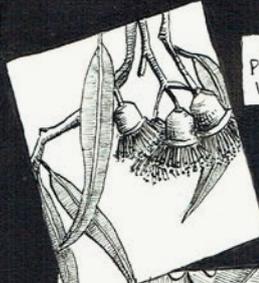
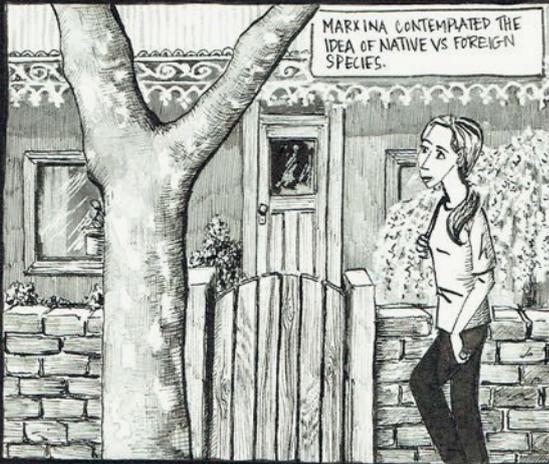
Elizabeth has worked on a number of stylistic effects to bring the emotional world of Marxina and the affective contours of living in a colonial city to the foreground. Sometimes we see the historical environment (pre-settlement) erased from the city landscape; at other times, we are witness to plant life spilling over the frames that fail to contain it. *Journey into the Herbarium* offers subtle departures from sequential art while resting on the power of graphic novels to transmit human experience. The design alludes to a number of our favourite graphic novels and to the world of botanical illustration; *Elizabeth's* drawing technique fuses symbol and metaphor, while also offering literal rather than rhetorical devices, depending on the speed of the narrative and depth of the issue that has to be explored and conveyed.

With respect to caricature, it is rare for the novel to exaggerate for effect, and yet Elizabeth has offered a number of ways to represent emotions, particularly wonder, awe, anger and surprise; this happens most convincingly where the writing – largely an academic treatise broken into bite-size chunks – fails most strikingly.

We hope you enjoy it.

Dr Tom Bristow

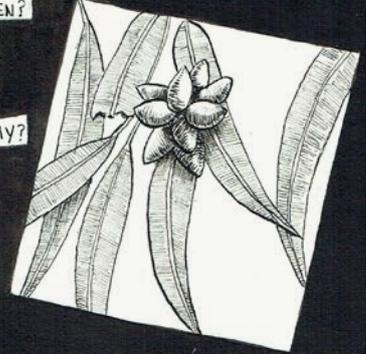
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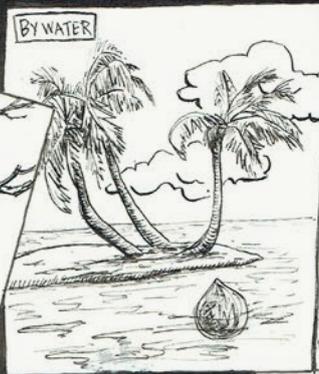
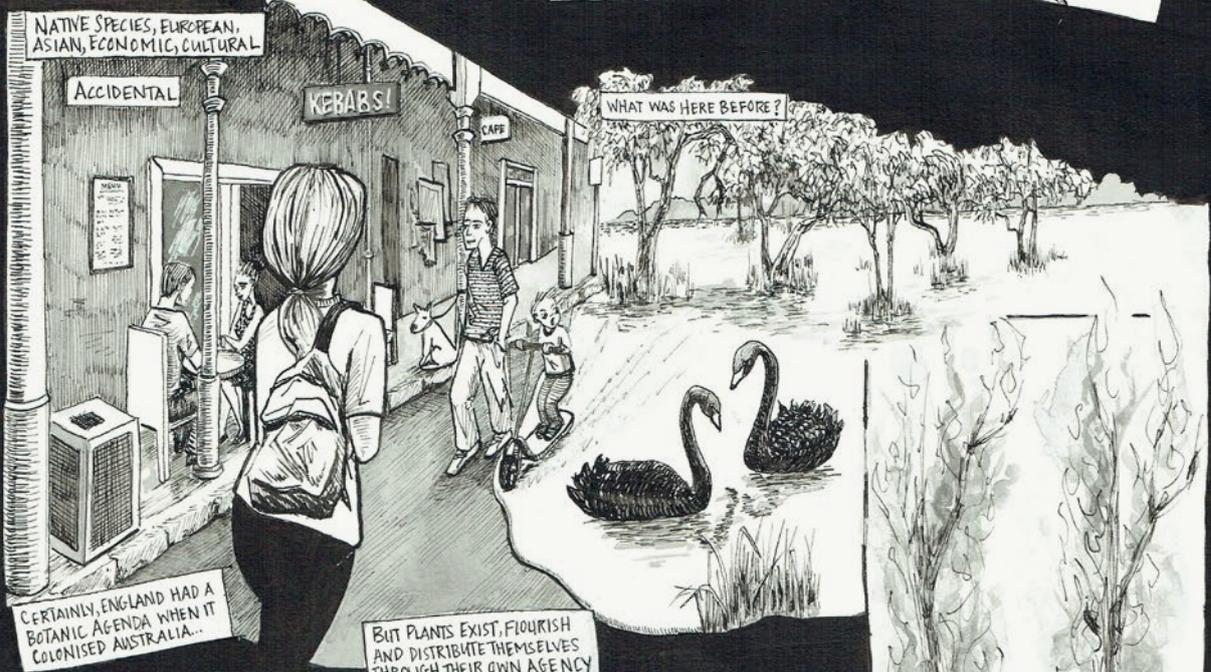
WHEN?



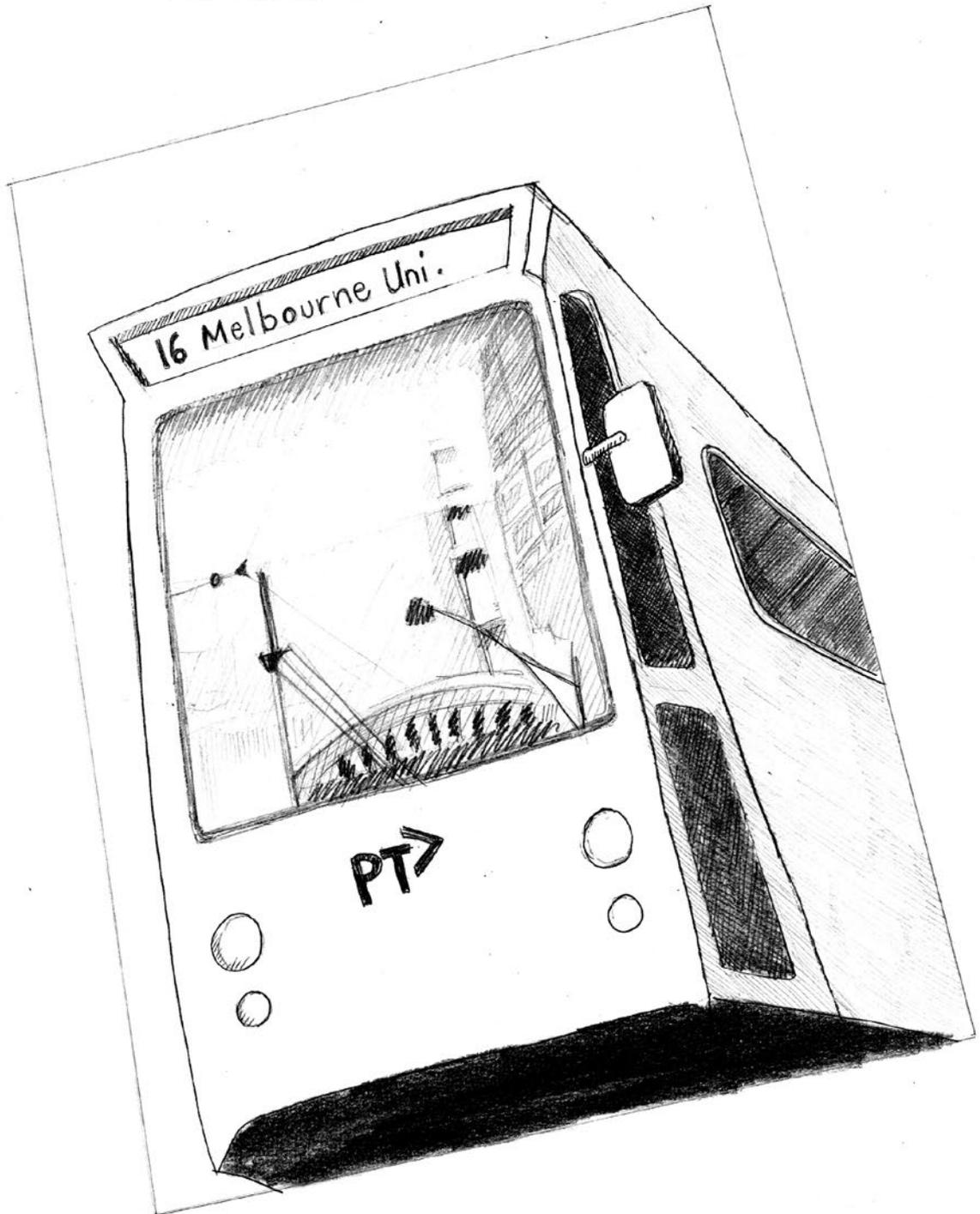
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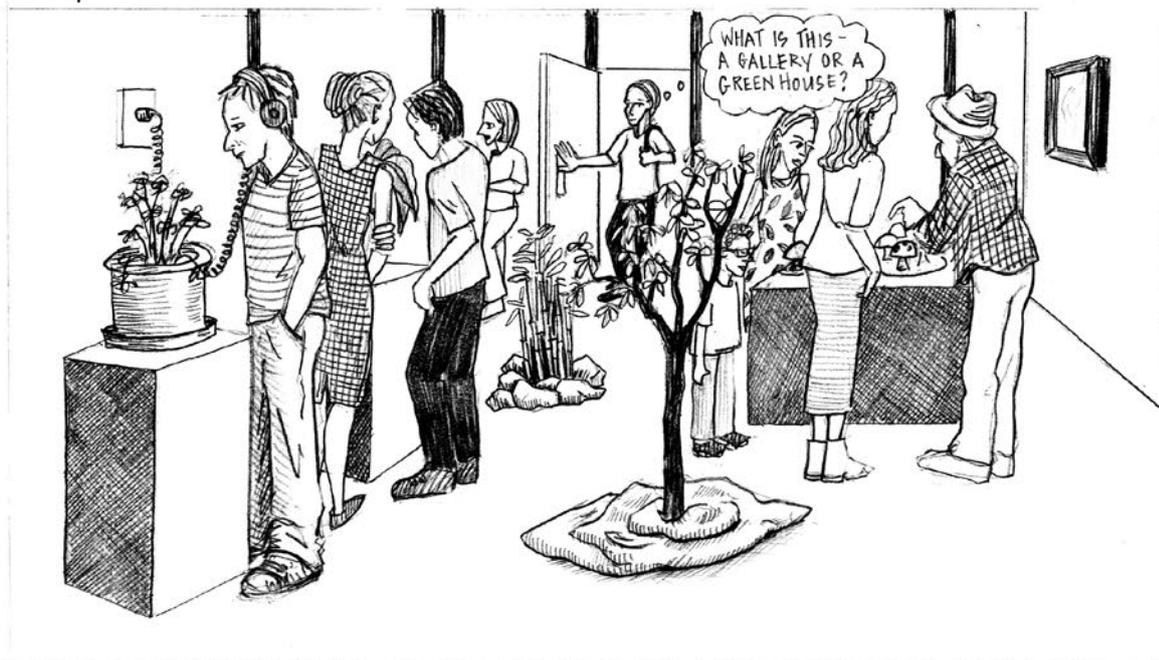
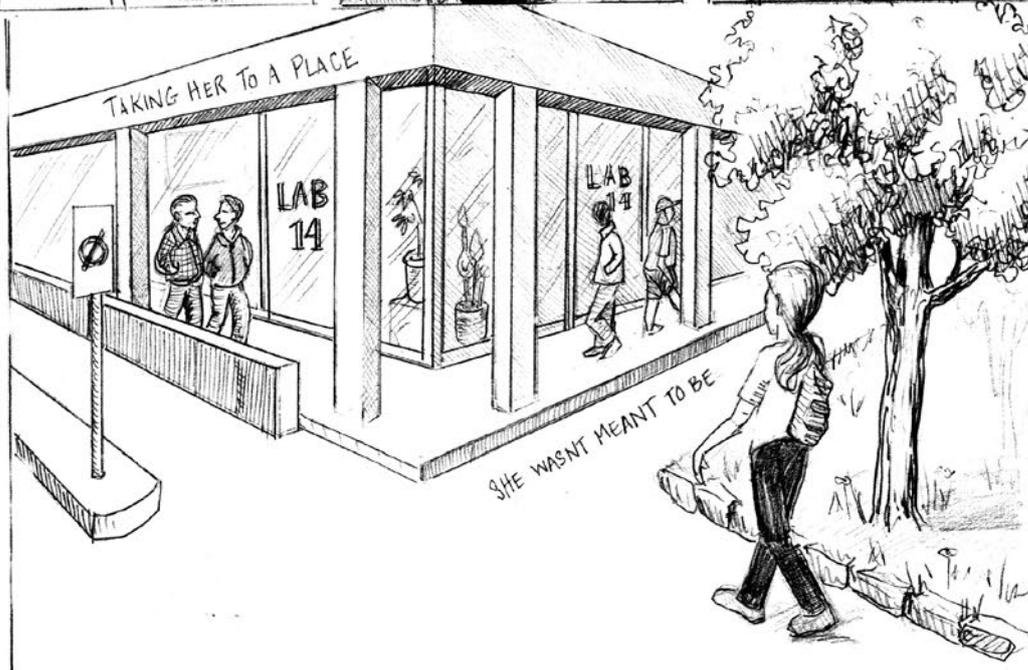


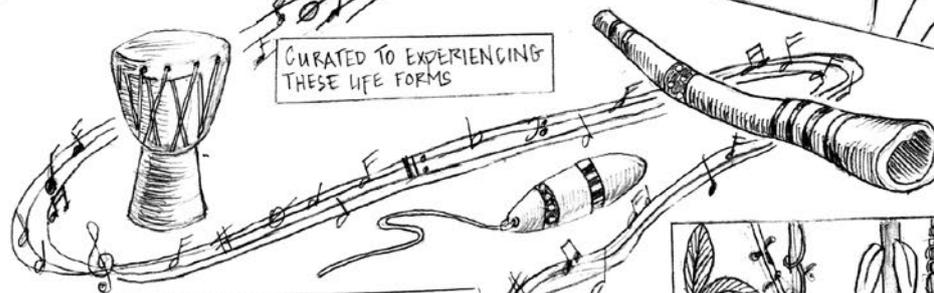
THERE WAS A WHOLE HISTORY OF THE COUNTRY TO BE READ FROM THE VEGETATION IN MELBOURNE.



IT WAS A WRONG NUMBER
THAT STARTED IT.







A SEED POD OF THE MOUNTAIN ACH TREE



NATIVE TO THE DANDENONG MOUNTAIN RANGES, LESS THAN 50 KM FROM MELBOURNE

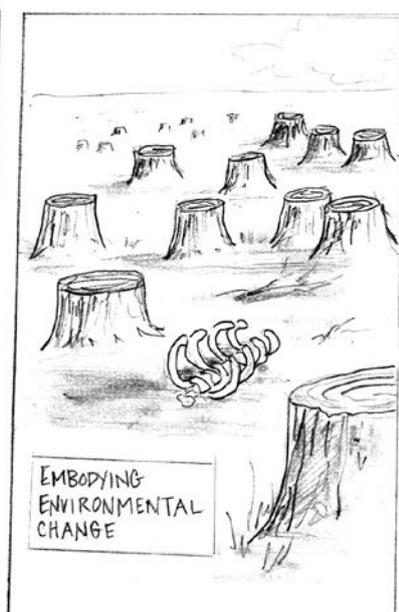
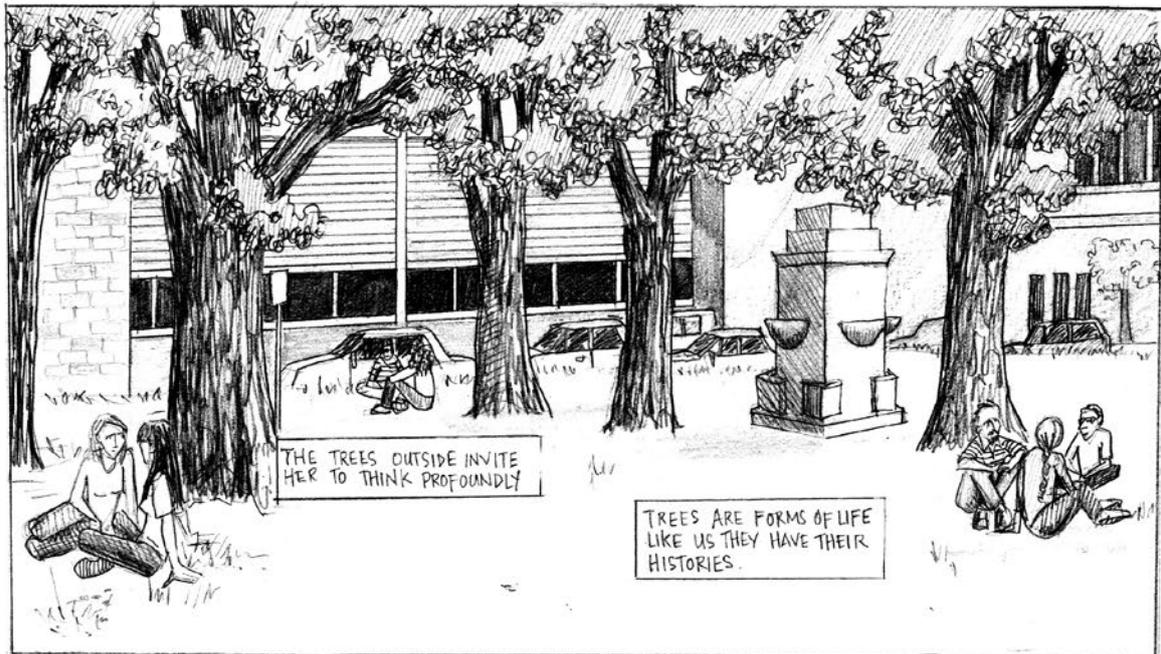
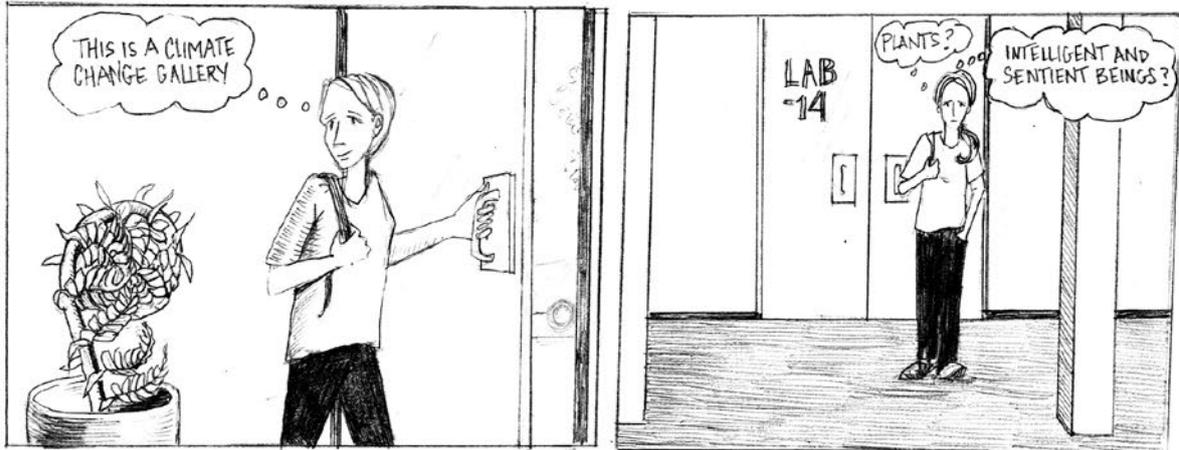
THE LARGEST FLOWERING TREE IN THE WORLD & HOME TO THE LEADBEATER'S POSSEUM..

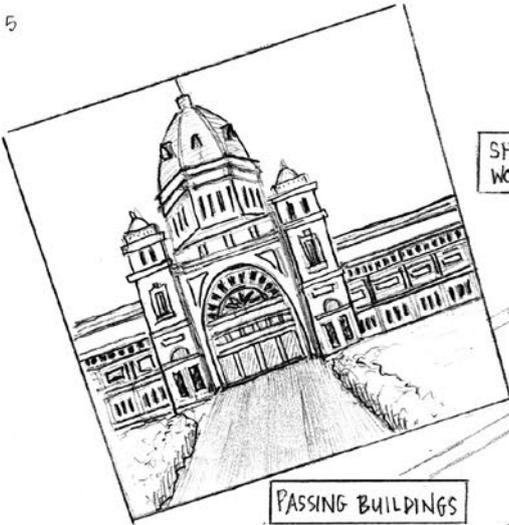
COOL.

ENDANGERED? HABITAT LOSS? ... NOT COOL.

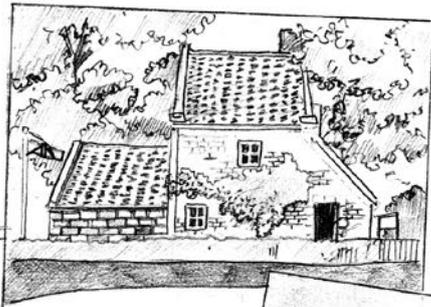
SEEDS FROM THIS TREE ARE STORED IN THE MILLENNIUM SEED BANK IN GREAT BRITAIN.







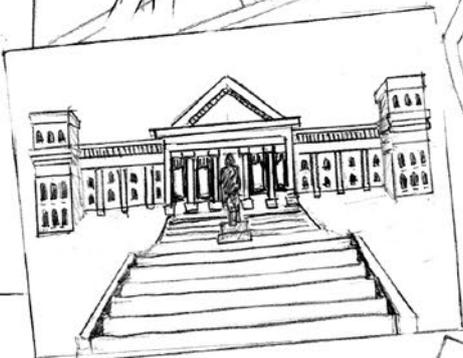
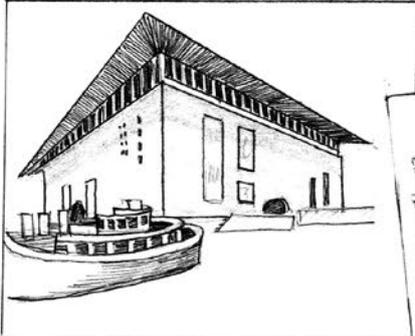
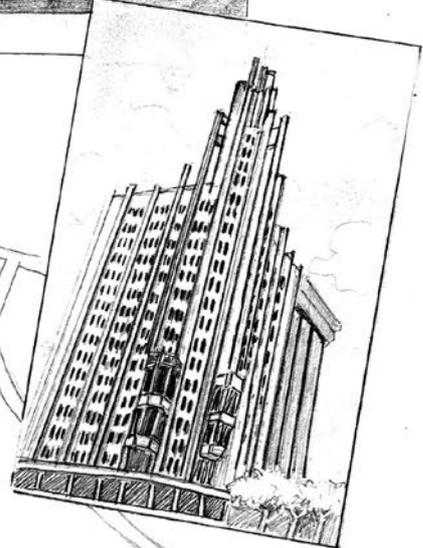
SHE SET OFF TO WORK ON FOOT



PASSING BUILDINGS

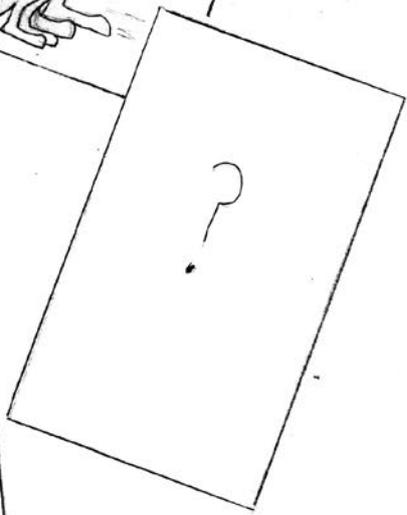
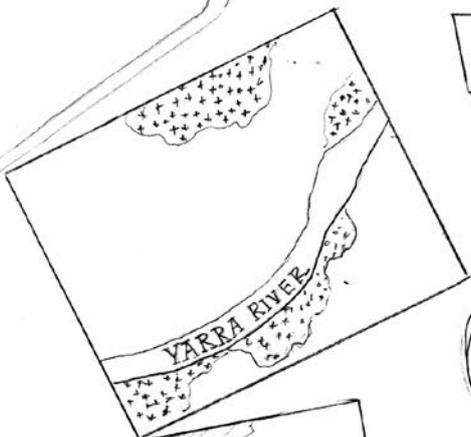


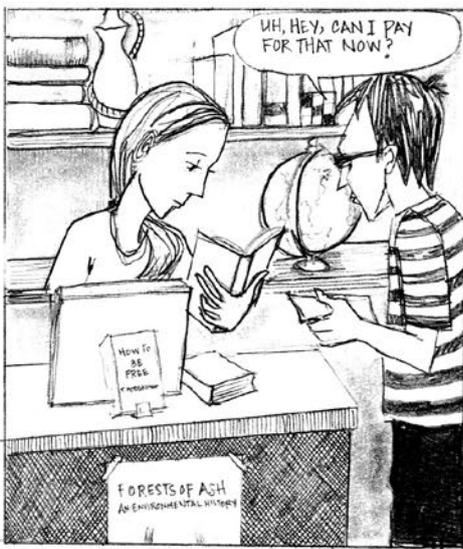
SHE'D PASSED COUNT-LESS TIMES BEFORE



STATION ST

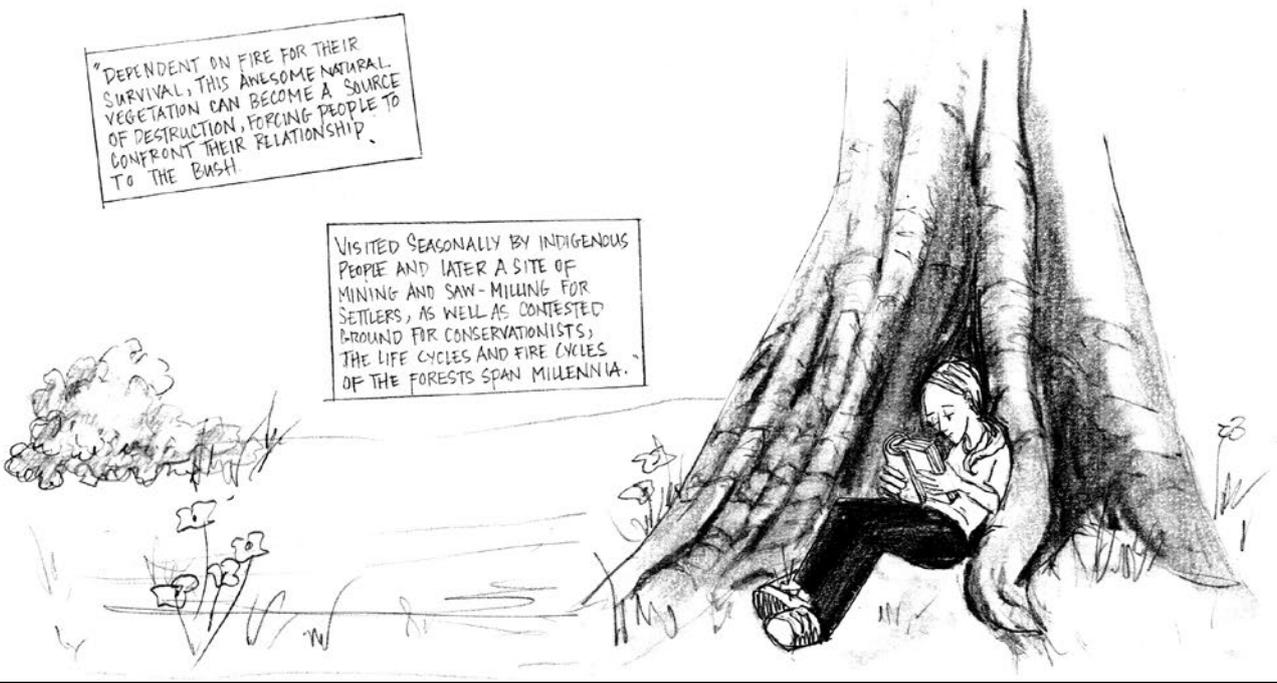
BUT WHAT WAS HERE BEFORE ALL OF THIS?

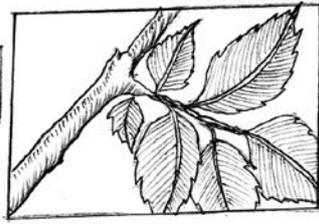




"DEPENDENT ON FIRE FOR THEIR SURVIVAL, THIS AWESOME NATURAL VEGETATION CAN BECOME A SOURCE OF DESTRUCTION, FORCING PEOPLE TO CONFRONT THEIR RELATIONSHIP TO THE BUSH."

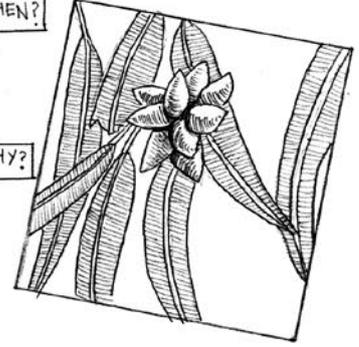
VISITED SEASONALLY BY INDIGENOUS PEOPLE AND LATER A SITE OF MINING AND SAW-MILLING FOR SETTLERS, AS WELL AS CONTESTED GROUND FOR CONSERVATIONISTS, THE LIFE CYCLES AND FIRE CYCLES OF THE FORESTS SPAN MILLENNIA.





WHEN?

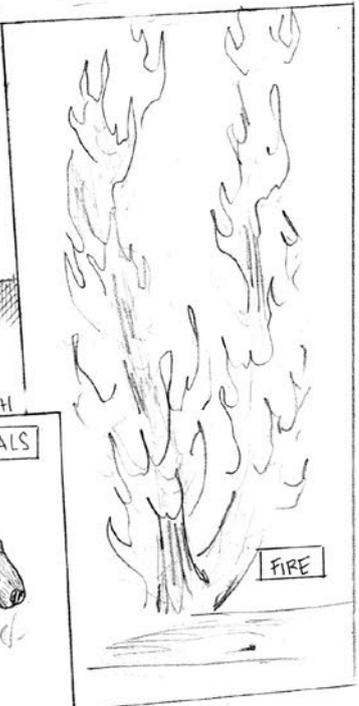
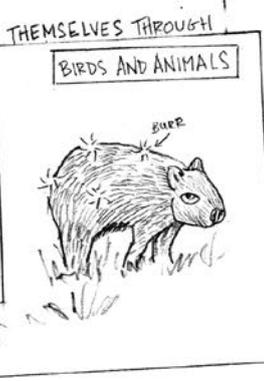
WHY?

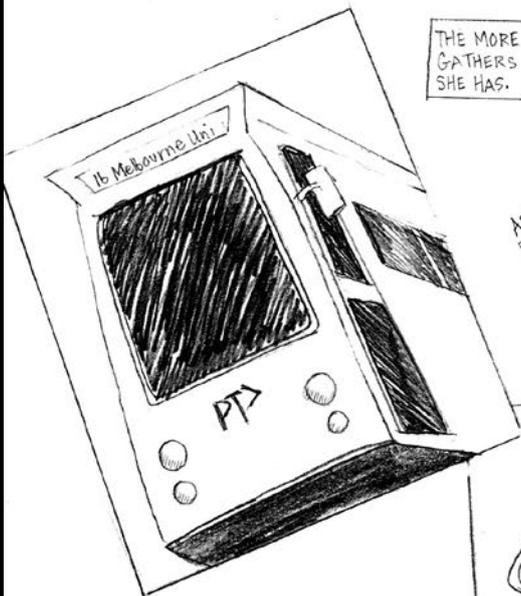
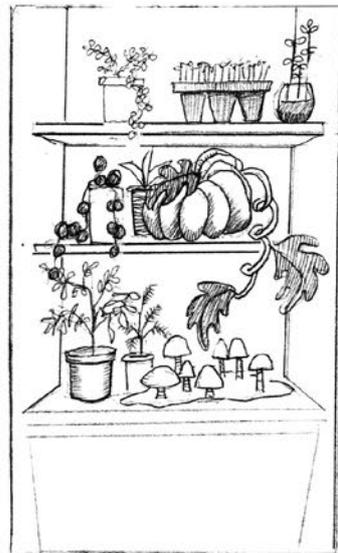


AS DIFFICULT AS IT IS TO COMPREHEND ...



AUSTRALIA'S HISTORY OF ECONOMIC BOTANY BEGERMINATED LIKE SEEDS IN HER MIND.



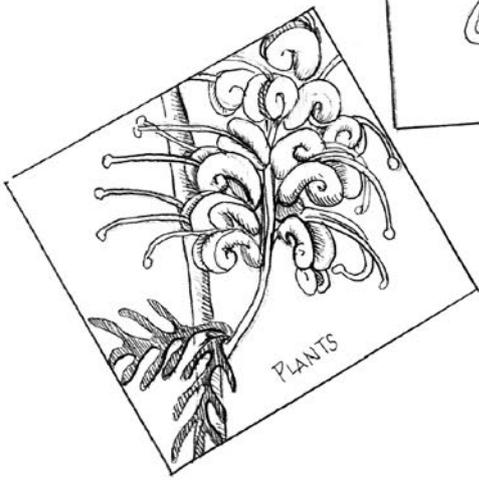
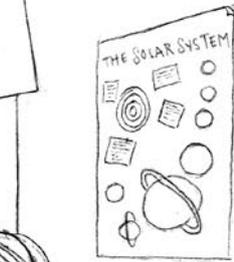
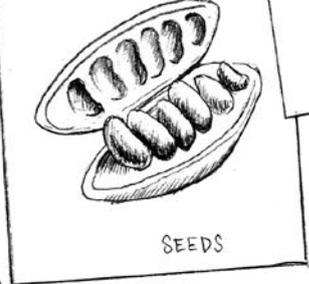
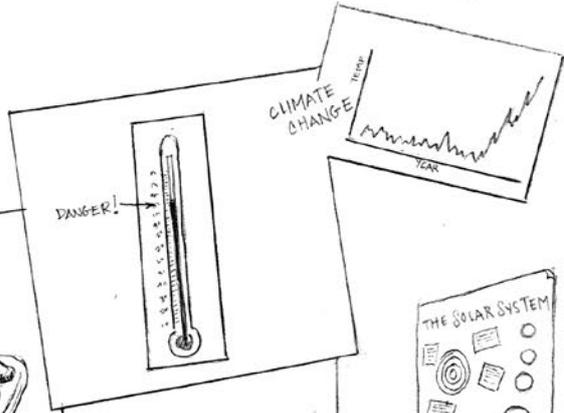


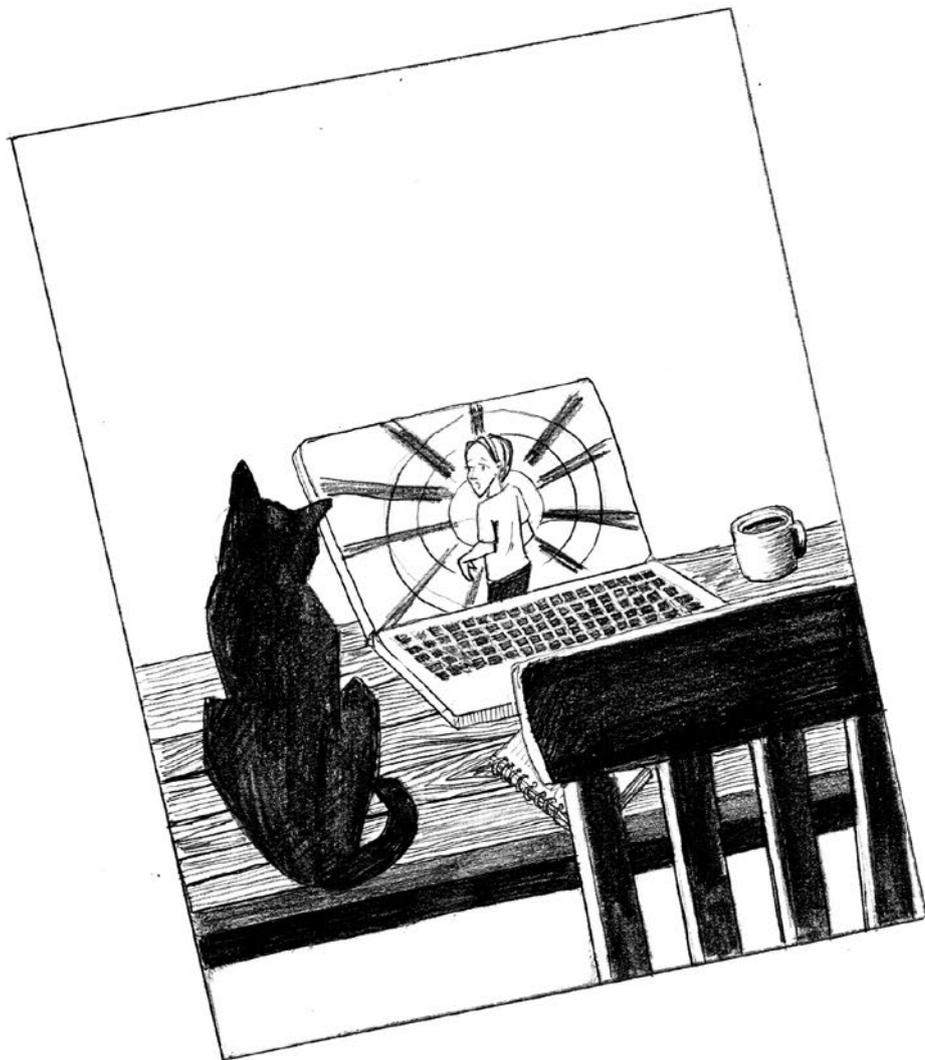
THE MORE INFORMATION SHE GATHERS THE MORE QUESTIONS SHE HAS.

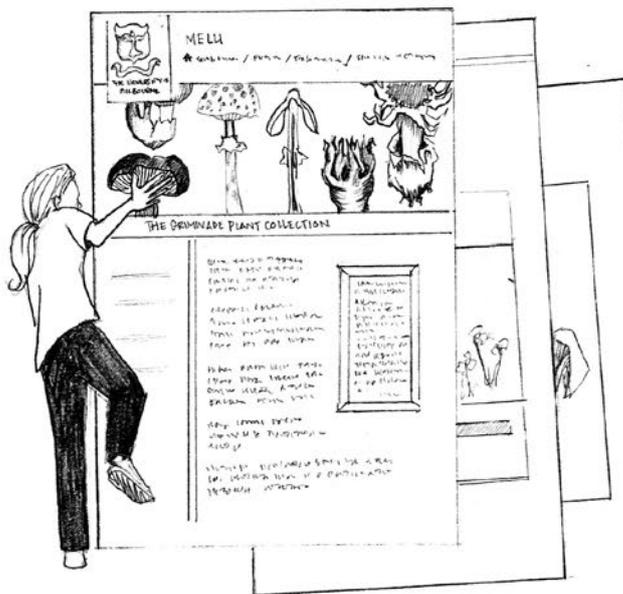
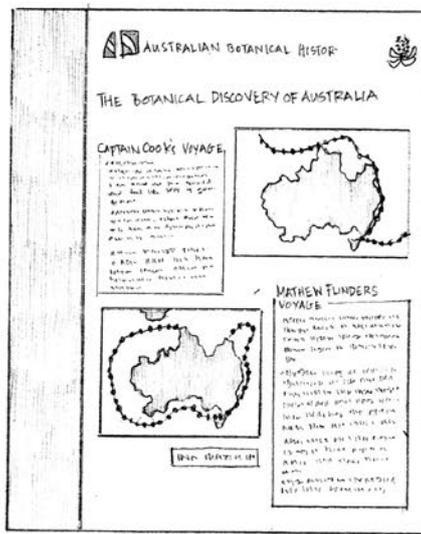
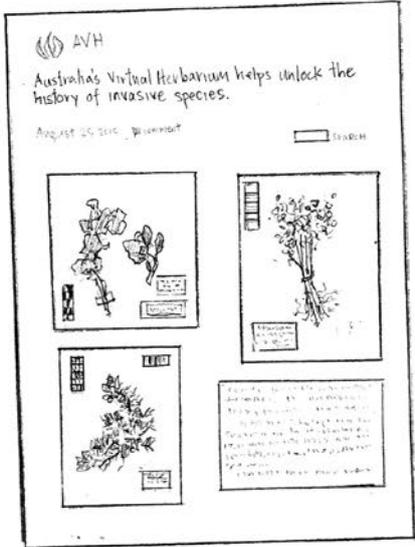
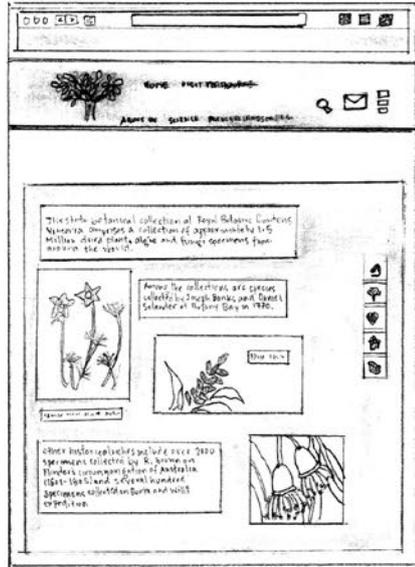
ARE SEASONS EQUALLY EFFECTED BY PLANETARY WARMING?

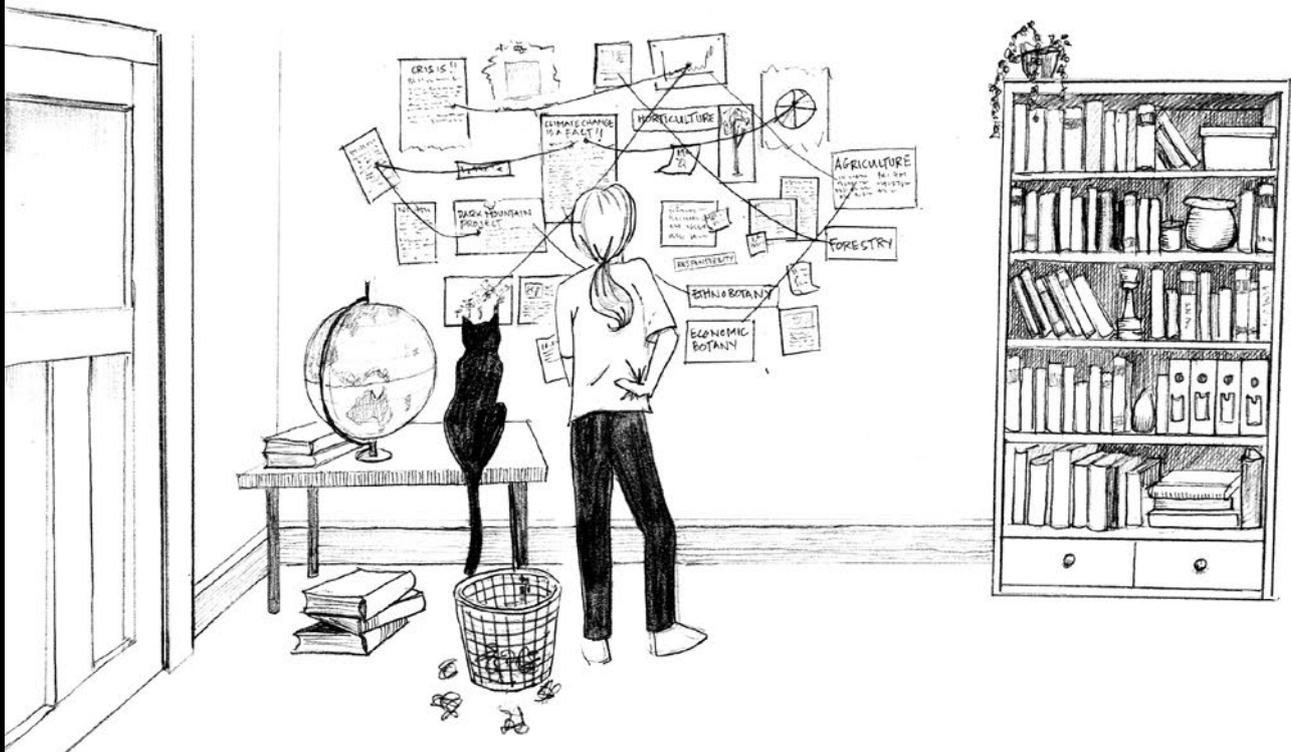
HOW DO TREES ADAPT TO CHANGE?

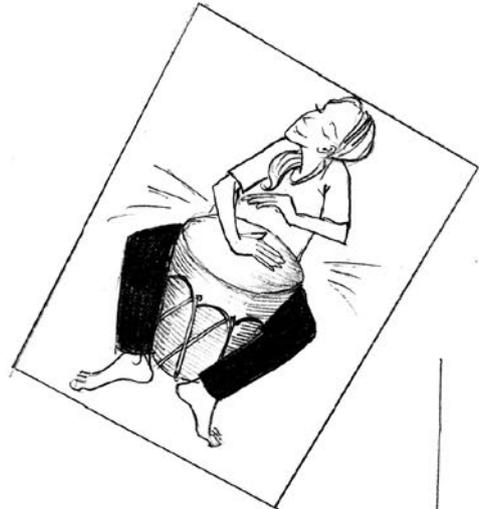
HOW HAVE PLANTS ADAPTED TO THIS DRY CONTINENT?







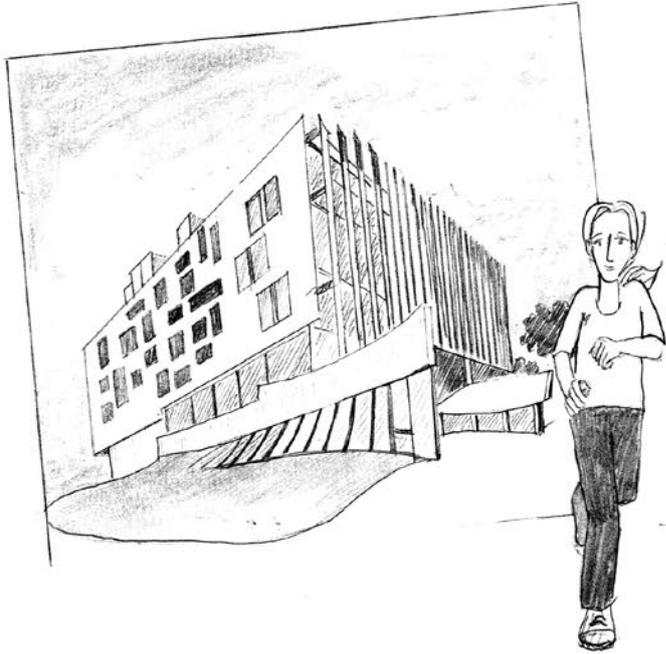
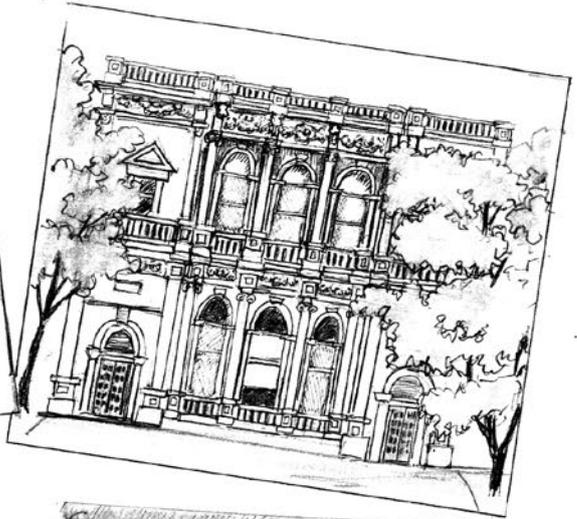
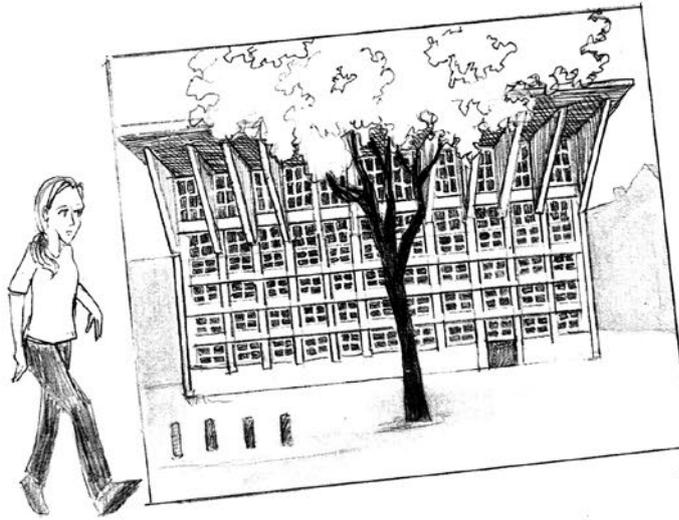


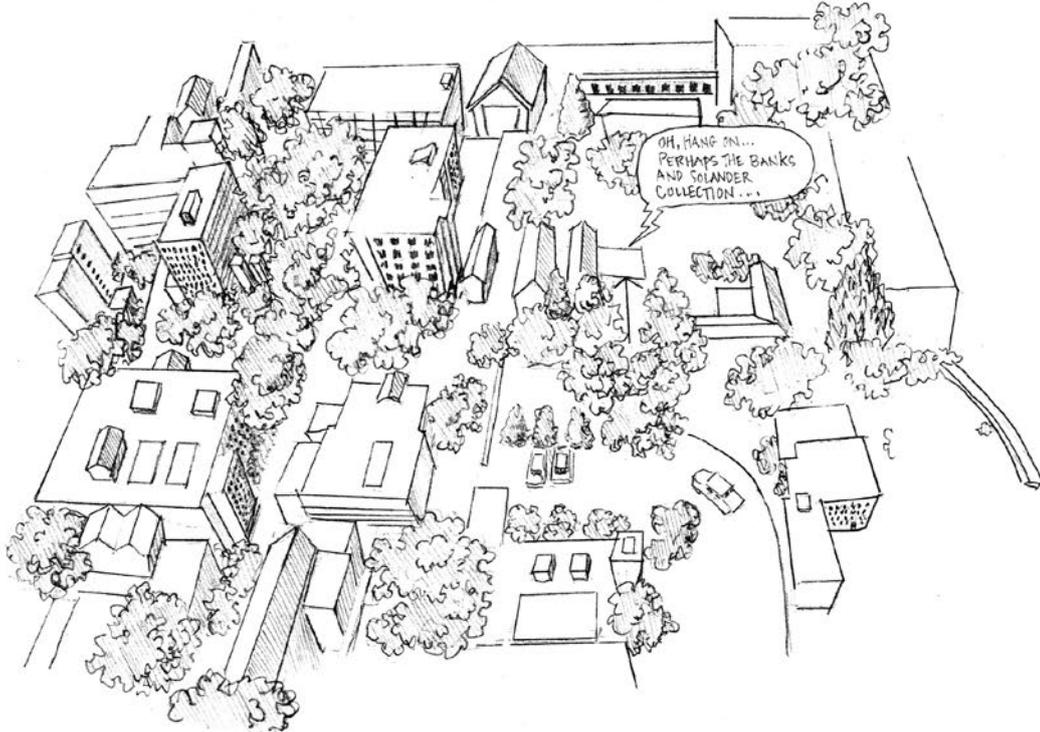
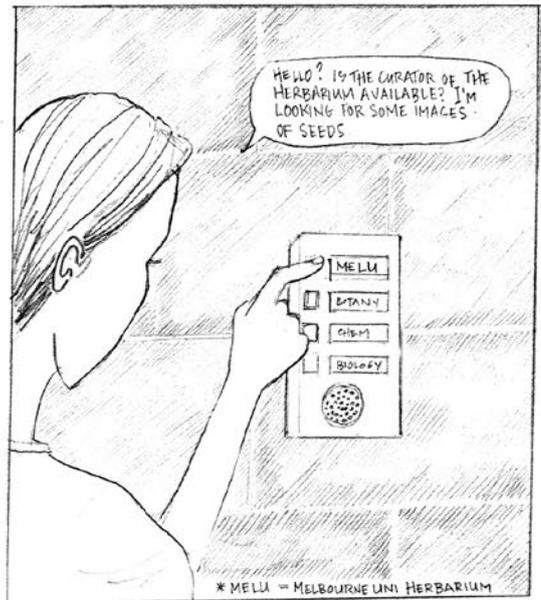
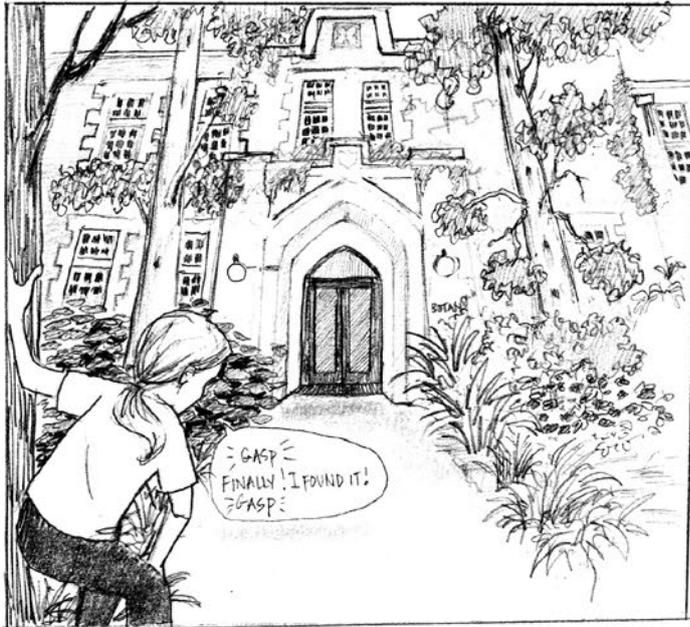


How to BRING TO MIND ALL THESE COMPLEX RELATIONS BETWEEN PLANTS, THEIR HISTORY AND HUMANS



LAB 14 IS NOW CLOSED IN PREPARATION FOR THE MELBOURNE SCIENCE GALLERY TO OPEN ON THIS SITE IN 2017.
CARLSON CONNECT INITIATIVE

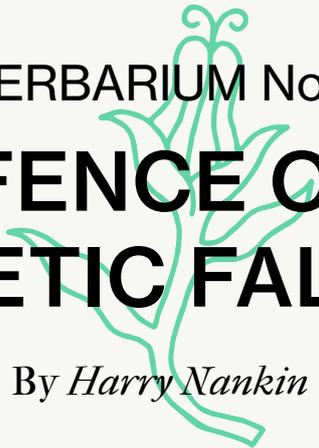




JOURNEY INTO THE HERBARIUM



By Dr. Thomas Griffin
Author of "The Herbarium"

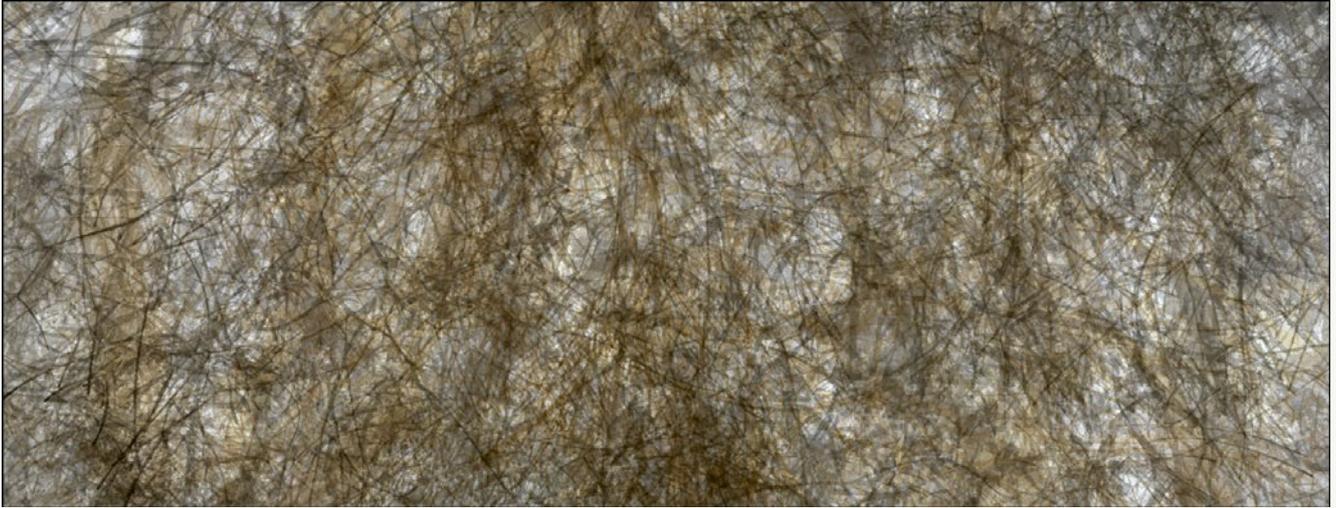


HERBARIUM No.2

IN DEFENCE OF THE PATHETIC FALLACY

By *Harry Nankin*

The contemporary mind resists enchantment. Indeed, nineteenth century critic, John Ruskin, coined the term ‘pathetic fallacy’ to describe the mistaken attribution of human traits to natural phenomena. Yet his and our well-reasoned suspicion of superstition has morphed into an irrational and exploitative indifference to nature-for-itself – an indifference central to the ecological crisis that besets us all. If we are to mitigate this crisis, giving nature a ‘voice’ through personification may be our best antidote to anthropocentric arrogance. This densely-layered camera-less image records the nocturnal shadows of old Belah trees (*Casuarina cristata*) found on the remote Meringur Flora Reserve in northwest Victoria. Mimicking the shape and look of this hot, dry, crackling-under-foot rectangular tangle of relict Mallee eucalypt, cypress-pine and whispering casuarina, the work invites us to consider whether sensing its ecological ‘spirit of place’ is a pathetic fallacy worth defending.



In defence of the pathetic fallacy, 2017

Pigment print on archival rag paper 91 cm x 235 cm; overlay of 14 toned gelatin silver film photograms, each 24 cm x 63cm





NATIONAL HERBARIUM OF VICTORIA

Casuarina cristata Ang.
— short pruned from the
specimens each - some of the
branches in which they are
Date: 21 June 1957
H.L. Smith

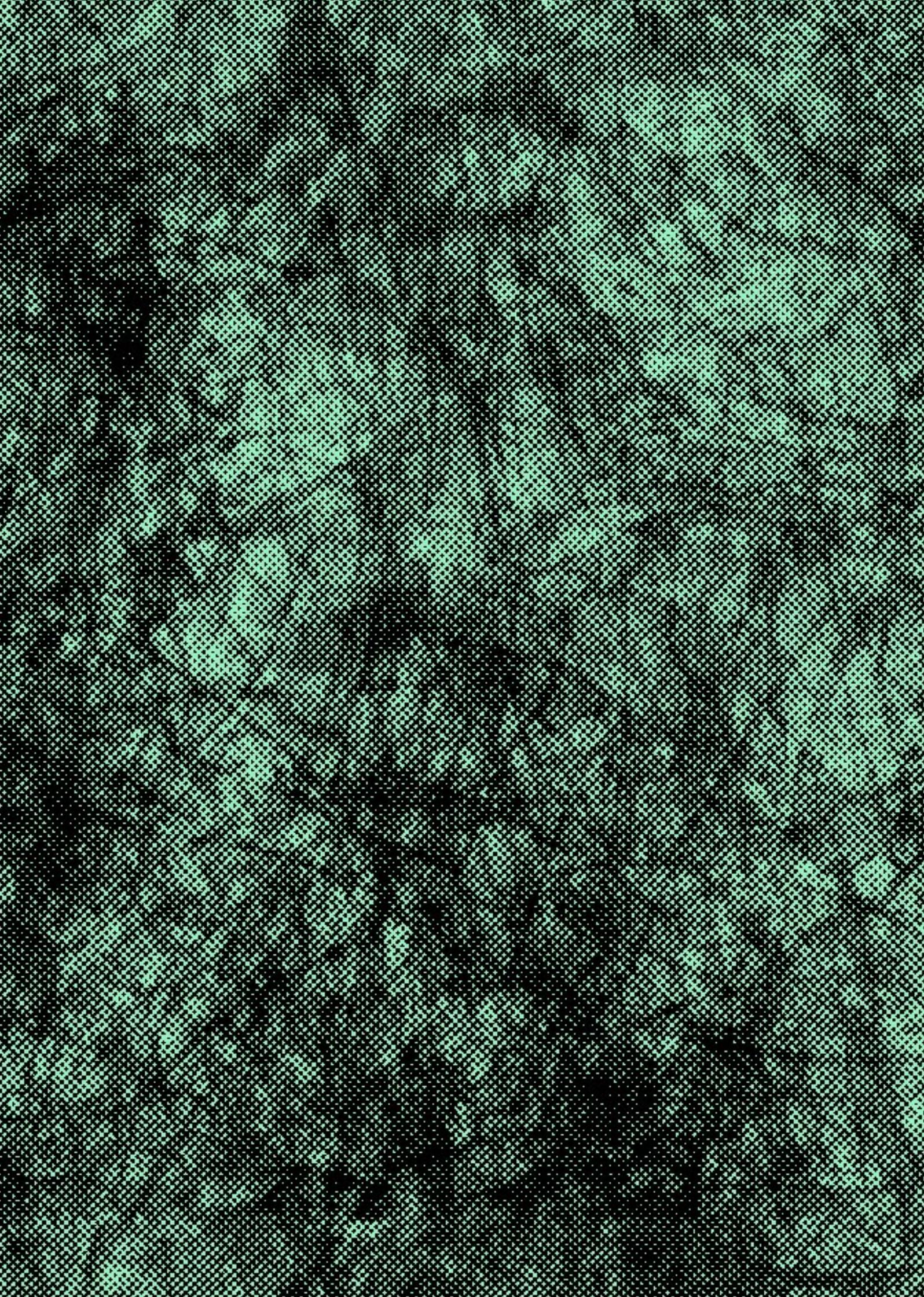
MELB 12172
CASUARINACEAE
Casuarina pauper F. Muell. ex L.A.S. Johnston
Determined 20150213

= *Casuarina pauper*
F. Muell. ex L. Johnston
18.3.2000 #

MELBOURNE UNIVERSITY HERBARIUM

Casuarina cristata Ang.

Collected by F.M. Johnston Date July 6, 1957
Locality Kaituma Date July 6, 1957
Country Victoria Date July 6, 1957





HERBARIUM No.3
SLOW HEAT
Composed By *Rosalind Hall*

*2 channel audio, saxophone and spring reverb preparation with pitch
and time manipulation*

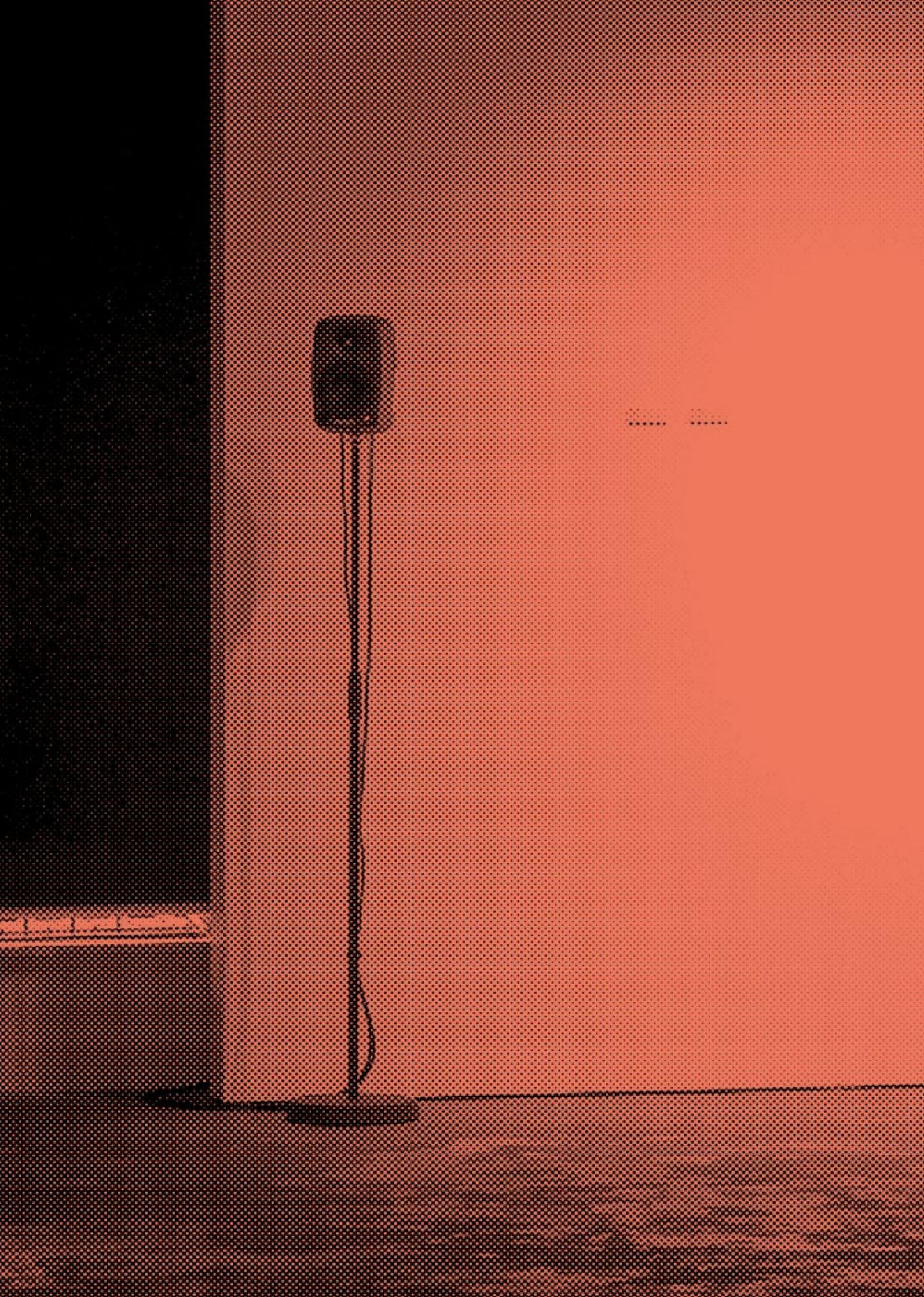
Listen Here Online at:
<https://soundcloud.com/rosalind-hall/slow-heat-excerpt>



The instrument is alto saxophone with spring reverb preparation. Attached is an image. Image credit: *Megan Spencer*

This piece takes an acoustic instrument and uses a series of processes to treat the recordings so as to extend the life of the original recorded sounds, transforming them into a looping series that continually reference themselves; looking back and suspended in time while bound to one another by their arrangement...embalmed remnants.

I was interested by the processes the organic matter goes through once collected to dry and preserve the specimen and the effect that time has on the degradation of the DNA in a specimen. These time based processes to preserve and treat once living specimens is reflected in the practice undertaken in my piece. I have made recordings of my performing acoustic instrument and processed them to shift the pitch and speed of the recordings and give a sense of slow degradation and the inevitable decay as tones subside with noise. The recordings bear no reference to the environment they were taken from and so exist in an in-between space that is remote and hanging in time, a sense I felt when visiting the Herbarium at Melbourne University, a shrine to the proof of life.





HERBARIUM No.4

SEED IN SPACE/SOUND IN TIME

By Josh Wodak

2 channel audio, data sonification of Snowy Tree Crickets

Listen Here Online at:

<https://soundcloud.com/anarchangle/seed-in-space-sound-in-time>

WAY BACK WHEN

If you drew a direct line in time from today, descending back through every generation of Wollemi Pine, the line tracing this family tree would extend back through approximately 400,000 generations, on the basis that the species Wollemi Nobilis has been in existence for 200,000,000 years. Since the tree has speciated from its own parent species, the continuous replication of its DNA had been passed down not only through time, but also through space. The space travelled extends from across the ancient supercontinent of Gondwana, where the tree surfed the surface of the supercontinent and its separation into new continents by the breaking up of tectonic plates. The journey terminus is the current resting point on the Australian Plate: all in all, travelling at an average speed of 5 cm per year for 10,000 kms over 200,000,000 years.

This line in space is not simply a thin black line from Gondwana to Australia: it is a map of geographic dispersion over time. The shape traced goes from the wide swathe of Wollemi that existed across Gondwana to today, through the ebbs and flows of global environmental changes that periodically pushed and pulled the tolerance thresholds that a diminishing minority of the Wollemi could evolve to withstand. These thresholds of tolerance are the ability for any lifeforms to withstand environmental changes: from rainfall and temperature through to continental drift and uplift.

If projecting this map onto the Earth from the height of the International Space Station (ISS) 400 kms above, the temporal shape of the Wollemi's geographic distribution would look like a funnel that proceeds to rapidly diminish down to the eye of a needle. As it draws toward the present, the funnel terminates in the only spot on Earth Wollemi are thought to exist in the wild: within a steep, narrow gully 150km north-west of Sydney.

Only discovered in this single gully in 1994, the Wollemi has since become a totemic species for conservation biologists, due to both its tenacity and fragility. The tenacity owes to having survived through the euphemistically termed ebbs and flows of global environmental change, including mass extinction events at the time the Wollemi came into being 200 million years ago, and another 65 million years ago which ended the age of the dinosaurs. The existence of Wollemi today is testament to this tenacity. Whereas a new species generally goes extinct in the 10 million years following its speciation, and while most other con-

temporaneous species were being rendered extinct through the unfolding cataclysms of periodic environmental upheaval on Earth, Wollemi continuously reproduced throughout all of this.

Yet the fragility of Wollemi owes to the slender genetic diversity in the only known remaining vessels of this DNA heritage, numbering less than 100 trees residing in one narrow gully. Now, at a time when it is already hanging by a thread, Wollemi is once again being challenged. This time its fragility is coming up against the increasingly divergent environmental conditions of the Anthropocene. One of the measures of this now all too anthropogenically-induced geological era is that the rate of mass species extinction constitutes the sixth such event since complex multicellular life first evolved 570 million years ago.

Following classification in 1998 as Critically Endangered on the International Union for Conservation of Nature's Red List of Threatened Species, a pathogen that moved through space on the heel of a bush-walker has decimated a third of this wild population. That a single homo sapien may unintentionally walk in the full stop for a sentence that's been running for 200 millions years renders the Anthropocene in cold relief.

If you're a tree, you would want to move away from the equator at an average of 1.15 metres per day to continue to exist in your current baseline temperature. That is the figure calculated by mapping the average tolerance threshold of trees across the world relative to projected rates of anticipated climate change for the remainder of the 21st century. If you're a Wollemi tree, you can't move further away from the equator than the narrow gully as there is no climbing out of the sheer cliff face on all sides. Just as there is no digging oneself out of a whole. To put the move away from the equator into perspective: as the Indian-Australian Plate is moving toward the equator at 7.5 cm per year, trees and plants in Australia would have to move just that bit faster south to offset the northward drift of the continent.

If you're a Wollemi seed, you could however move much further by hitching a ride – say in a bird's stomach or in the collection pouch of a conservation biologist. So it is that in 2008, 100 Wollemi seeds are collected from Wollemi National Park, where they begin a journey across the length and breadth of the Earth and into Low Earth Orbit. From the time and space of Gondwana 200,000,000 years ago to Wollemi National Park in 2008, Wollemi DNA travelled the 10,000 km at an average rate of 5 cm per year. Unlike their ancestors, the sibling seeds picked that day in 2008 are scattered across and above the globe. Over

the 12 months following collection, these 100 seeds are separated into control samples that are sent on the horizontal axis to Mount Annan Botanic Garden Seedbank, 50 kms away. On the vertical axis, 23 of the seeds are sent to the International Space Station (ISS), to orbit the Earth at 28,000 km per hour for six months, where they travel 12230 times the total distance from Gondwana to Wollemi National Park.

These seeds dispersed to Mount Annan and the ISS do so under the auspices of the Seeds in Space project - the first time Australian native seeds are sent into space. For this experiment, NASA and the Sydney Botanic Gardens Trust send 2,500 Golden Wattle, NSW Waratah, Flannel Flower and Wollemi Pine seeds to the ISS to explore the effects of microgravity and ionising radiation on the seeds. They also explore a form of a 'space seedbank' to see whether the notoriously hardy Golden Wattle could be a viable off-world option to terrestrial seedbanks. On board the ISS the seeds are kept in the sock drawer of Gregory Chamitoff, the NASA astronaut who takes them on board, and sleeps with them by his bed for 6 months, before returning them to Earth to test if and how they will germinate.



Wollemi Pine specimen
(*Melbourne of University Herbarium*)

Herbarium sheet: 28.5.0 x 33.0 cm
University of Melbourne Herbarium (MELU)
MELU accession number: MELU G 113379a

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DIVERSIFICATION AFTER DECIMATION

Upon their return to Earth, the space-trodden seeds are placed back alongside their siblings that have remained at Mount Annan for the duration. Both sets are brought back to room temperature for germination, so that the scientists can explore the differences in growth morphology between those that stayed versus those that left Earth. None of the Wollemi germinate – due to the effects of being sterilised as part of the drying process for transit to the ISS.

While the captured seeds' trajectories end in either dormancy, propagation, or death by sterilisation within a seedbank, the focus here is on the turbulence of the active phases of the Seeds in Space project. A Wollemi seeds' shell is the permeable membrane across which it exchanges matter and energy with its surrounding environs. And, like all organisms, over the procession of its evolution, the seed continuously redefines the tolerance thresholds of exchanging matter and energy across this membrane, such as the surrounding temperature, hydration and chemical constitution. The seeds sitting in the gully at present experience a temperature range when on the tree or the ground of 14° to 38° year in year out. Those sent to Mount Annan and the ISS are subject to a much wider range of temperatures, given the combination of immersion in controlled laboratory environments, where they are deliberately exposed to temperatures ranging from -18° to +45°, as well as uncontrolled exposure to temperature variation during transit by truck, train, airplane, and, in the case of ISS, rocket ship.

'seed in space/sound in time' recreates the journey of the Wollemi seeds by mapping the temperatures three particular seeds experience over the 12 months of the experiment. The work depicts the 'natural' temperature of the one wild seed left behind in the gully versus the artificial temperatures occasioned in the two other seeds' respective journeys. The temperature each seed experiences is mapped to a corresponding sound whose pulse rate and pitch is modified in proportion to the seeds' temperature at that time. The three sounds are of three Snowy Tree Crickets, as this insect constantly monitors its surrounding temperature, and adjusts the pulse rate and pitch of its chirping according to any changes in ambient temperature. So it is as if each seed has a Snowy Tree Cricket watching over its journey – in line with how scientists use data loggers to mechanically record all changes in temperature and humidity that the seeds experience in the experiment.

The sonic journey for all seeds originates at the collection point of Wollemi National Park. The sound of the seed that remains in situ sets the benchmark for the 'natural' climate experienced by an uncollected seed. The range of artificial temperatures experienced by the two other seeds respectively depict a seed at NSW Seed Bank and the ISS. The sound channels all start in unison, representing the three seeds in situ, and then progressively deviate in and out of frequency with one another, as the seeds undergo their various journeys and destinations.

The patterns of sound shift into and out of phrase and phase with one another, according to stages in the experiment where the control seeds on Earth are subject to the same conditions as those in space. So when the seeds on ISS and at Mount Annan are both kept at room temperature of 25°, the pulse rate of their corresponding cricket sample is in phase. But when the seeds at Mount Annan are cooled down to 0° for storage, or when the ISS seeds are being transported by airplane to Cape Canaveral, their pulse rates will be out of phase – being much slower/lower or faster/higher in rate/pitch than the other.

Artificially controlled temperature, moisture and humidity are the means by which many species, exemplified by the Wollemi Pine, are included in the arsenal of future potential biodiversity by way of seed-banks. This ethos of attempting to conserve species by tending seed stockpiles of current biodiversity stands in direct contrast to the rapidity and turbulence of contemporary environmental upheaval being unleashed on the sibling seeds that remain outdoors, having 'escaped' capture.

In 'seed in space/sound in time' we may listen through a year of the dramatic differences of the seeds' temperature exposure through their journeys and destinations. The work adapts the riddle of "if a tree falls in a forest and no one is around to hear it, does it make a sound?" to the sounds of seeds experiencing environmental change. A nearby Snowy Tree Cricket would not only hear the sound of this tree falling, but it would also modulate the pitch and rate of its chirping, according to the change in temperature from more sunlight hitting the forest floor in the clearing made by the tree. So to with 'seed in space/sound in time': we would do well to keep in mind not only the notion of a sight unseen but also of the sound unheard.

ACKNOWLEDGEMENTS

The following scientists generously corresponded with the artist, regarding *Wollemi Nobilis* and the Seeds in Space project:

Prof Gregory Chamitoff, Lawrence Hargrave Professor of Aeronautical Engineering, University of Sydney; *Dr Penny Farrant*, Sydney Royal Botanic Gardens and Domain Trust; *Dr Catherine A. Offord*, Principal Research Scientist, Sydney Royal Botanic Gardens & Centennial Parklands; *Dr Peter Cuneo*, Manager, Seedbank & Restoration Research, Sydney Botanic Gardens & Centennial Parklands; *Dr Joanne Birch*, Herbarium Curator, University of Melbourne Herbarium ; *Leahwyn Seed*, Seed Technology Officer, National Parks and Wildlife Service, Office of Environment and Heritage





HERBARIUM No.5
GROUNDS
Poems by *Bonny Cassidy*

Grounds is a serial poem*; it invites the reader to jump time and space, and draw lines between points. Each part or page (there are fourteen in total) is intended to stand alone as a short poem; in the company of the rest it gains meaning and thematic continuity.

In theory, the poem has no fixed sequence. If printed in a bound format such as this, that of course changes. For the purposes of original exhibition, however, I have chosen to make a pamphlet of seven, double-sided loose pages. I want to let the fourteen parts float and settle; to be ordered by the reader's understanding or to fall into a chance chronology. Rhizomic, this presentation produces numerous combinations and possibilities for the reading of the poem's images, voices and allusions.

*Read randomised version of poem at <http://unlikely.net.au/issue-04/grounds>

The idea for the poem's form was led by its developing content. One of its quoted lines, "A walk in the Victorian bush in Autumn after rain", introduces the poem's subject. It was in that precise scenario that I decided on writing a poem in response to fungi and, soon after, discovered the work of artist Malcolm Howie, which is collected in MELU. I am neither a documentarian nor a scientist; I knew I didn't want to write about fungi, so much as write about the way fungi are culturally represented. So, that became one theme of the poem – poetics as distinct from science. Specifically, I was interested in how the Australian context might inflect the representation of fungi; thus, the politics of settlement adds another, proliferative thematic refrain.

I decided to explicate my process of influences and concerns, through footnoted citations, and shifts in register and voice throughout the poem. Grounds should probably be called a lyric essay. Assembling its parts, I came to the idea of making a form that resembled the hyphae or root-like strands of fungi underground, out of human sight. Colonies of hyphae can gather across miles and miles. This image offered me not only political and narrative analogies, but also conceptual ones: to read is to be inhabited, from the inside out. The poem is dense yet minimal, allusive as well as explicit. It should be read twice, three times, carried over distances, added to and dispersed.

Malcolm Howie, painter of fungi
bound his watercolours and died, aged 36.

*From age 16 he was unable to walk, and towards the end of his life
only able to paint with movements of his wrist.¹*

I consider making a crude analogy out of his demise.

*Mushrooms spring up with autumn rain, expand, shed
their spores, and decay; all in a matter of weeks.²*

It crumbles: fungi do not atrophy, they do not fail.
When a fungal flower perishes
it has done its work until
remade.

1 Australian National Herbarium Biographical Notes, 'Malcolm Ian Howie': <https://www.anbg.gov.au/biography/howie-malcolm-ian.html>

2 Tom May, 'Bringing Mushrooms Alive', *Botanic News* (Autumn 2014), p12.

To walk the field again

through his wrist, flashing up
threads of pigment

as in life

the fibres
of a stinkhorn (high plains drifter)

on a large cream ground
for hands.

Its skin tingles
lines of *unfinished business*³
bust from the archive
tall on fire
sparks carry up the air buzzing
clouds.

3 Natalie Harkin, 'Writing into Invisible Spaces' workshop, RMIT University, 16 April 2016

*A walk in the Victorian bush in Autumn after rain.*⁴

In roots of the ribbon gum
metaphor moves like spores
or crumbs ambling uphill.
The colour of its rough speech
bubbles/paradise, trouble. The colour of infected nymphs.

You are reading this far
enough from its place of making

I am putting it together in Narrm

where fragile metaphors tremble and reach
in custom-made boxes
forever 21 degrees.

4 MELU, 'Malcolm Howie Watercolours': <http://biosciences.unimelb.edu.au/engage/the-university-of-melbourne-herbarium/significant-collections>

Meanwhile, fungi provide a rash of myth, since *by virtue of the ecologically and ontologically articulated modes fungi inhabit, to write of them is to write in a different way than of animals and plants.*⁵

Like the primeval fern, the fungus is pure Aussie gothic. The terror of life on other terms in *the oldest ocean—evil and beautiful, sluggish and blind and dumb*⁶ —*a land of floating brains*⁷

becomes the threat of undifferentiated invaders
as thinkless slime, reaching
for nutrients, budding selves, *getting & spending*⁸
*held together by dirt and foul tempers*⁹

as their host consumes herself
*slowly at first but then much more quickly.*¹⁰

And how green is the valley
of boho back-blocks, where fungi
are heir to pagan plots:
troll cat/witch butter/Sunday bile. Sex spot.

5 John Charles Ryan, 'A Poetic Mycology of the Senses', *PAN* 10 (2013), p55.

6 Douglas Stewart, 'The Fungus', Australian Poetry Library: <http://www.poetrylibrary.edu.au/poets/stewart-douglas/the-fungus-0503032>

7 Nigel Fechner, 'My Fungi!', Fungal Poetry, Queensland Mycological Society: <http://qldfungi.org.au/fungal-poetry/my-fungi>

8 William Wordsworth, 'The World is Too Much With Us', Poetry Foundation: <https://www.poetryfoundation.org/poems-and-poets/poems/detail/45564>

9 Wowiki, 'Fungal horrors': http://wowwiki.wikia.com/wiki/Fungal_horror

10 Adam Harry Knight, *The Fungus, Start*, 1985.

Sowing future
remembers

open-tipped
the lengths that keep you

like frequency or magnetism:
a peripheral circle.
Over the bogongs, the Bundian Way.

You float from highlands to bay,
your home is potentially anywhere,
a moveable colony

I watch fast-motion films of furry morsels rising and falling out of logs
through suspended marshes across the fat creeks, sudden hills that are
lost to lowlands (were grasslands), watercolour
draining from the eye

*repeated dryly
in Roman capitals.* ¹¹

But under the herbarium's glass, a pruney smile.
There is juice and bright, and a crunch of old very light spice.

¹¹ Kenneth Slessor, 'Elegy in a Botanic Gardens', Poem Hunter: <http://www.poemhunter.com/best-poems/kenneth-slessor/elegy-in-a-botanic-gardens/>

Australian poetry sees fungi as nativist; exotic locals. Kinsella defends fungi to the plough, which makes nothing from something; he praises its *night growth and industry*¹². Dutton sets blithe mushrooms and maggots against needy sheep.¹³ Shaw Neilson invites wakeful lovers to hear caps surfacing through the autumn dew.

Overnight our neighbourhood's walls and windows
produce BIG JIZZ in a silver must. Smut.
In the colony it was called Punk.

*Metaphor is a dynamic tool for building knowledge and enabling new insights and connections by relating thoughts from one sphere to another.*¹⁴

The poet's psychotropes:
handling the fungus like, like, like
carrot, cock, coral, cunt, crab

still the hyphae hang

and spend themselves

chucking up their kids

12 John Kinsella, 'Mushrooming', Australian Poetry Library: <http://www.poetrylibrary.edu.au/poets/kinsella-john/mushrooming-0317008>

13 Geoffrey Dutton, 'Mushrooms', Australian Poetry Library: <http://www.poetrylibrary.edu.au/poets/dutton-geoffrey/mushrooms-0731096>

14 Alison Pouliot, 'Intimate Strangers of the Subterranean', *PAN* 10 (2013), p18.

In Howie's work a Victorian fungus is strong and dense, gripping a bundle of sticks.

Perhaps he reappears
in the flickered lithe and rarrky flange
of his pictures and their purple litter

a folded
furtive voucher

deep drawers closing.

*If you can imagine a toadstool in joints, an
interminable string of toadstools, budding
and sprouting in endless convolutions why,
that is something like it.*¹⁵

In his late confinement, he saw a rain-darkened trunk.

15 Charlotte Perkins Gilman, 'The Yellow Wallpaper', University of Adelaide Library: https://ebooks.adelaide.edu.au/g/gilman/charlotte_perkins/yellow/

The port its puffs of brown smoke. Flattened and tinny from up here, gasping.
Ice thrashes in the river, we read the pale history on its banks.

Back in the city searching for Taungurung histories:

Benalla—benalta = big waterhole

Delatite—Delotite, wife of Beeolite, clan head of the Yowung-illam-balluk clan

Murrindindi—murrumdoorandi = place of mists, mountain

Trawool—trawalla = wild water

*Nagambie—nogamby = lagoon.*¹⁶

Books say native bread doesn't rise in such a volatile climate.

Back in the herbarium, country flakes off

the smooth, shiny,

*creaminess of the colonies.*¹⁷

¹⁶ Taungurung News, 'Taungurung – A Brief History by Loraine Padgham': http://taungurung.net/2011/04/taungurung_a_brief_history.html

¹⁷ Tarsh Bates, 'HumanThrush Entanglements', *PAN* 10 (2013), p42.

Rust and thrush:

mycology sounds see-through
to me; all the words

removed of their soil.
Not so—

it clings.

If you can imagine how everything else resembles a fungus.

At the edge of your vision
*what we learn how to see*¹⁸

the curtain of strands
itching and glancing

all this struggling
to leap out of yourself

to the possibility of the colony

*you can only clear a place for it*¹⁹

or relocate

18 Donna Haraway, 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective', *Feminist Studies* 14.3 (Autumn 1988), p583.

19 Ben Lerner, *The Hatred of Poetry*, Fitzcarraldo Editions, 2016.

The selfish artist, Howle re
no sujet de genre
but in things.

It's not that poetry is
appears to me by sh
of actual/virtual

GROUNDS

To walk the field again

through his wrist, flashing up
threads of pigment

as in life

the fibres
of a stinkhorn (high plains drifter)

on a large cream ground
for hands.

In juicy disgust the skin tingles

busts from the archive
tall on fire
a shredded flag
sparks carried on the air buzzing
clouds.

Maybe it takes a woman

and her own 'Victorian' confinement
of nerves—

I'm sure I never used to be so sensitive ...

to flip.

*The outside pattern is a florid arabesque,
reminding one of a fungus. If
you can imagine a toadstool in joints, an
interminable string of toadstools, budding
and sprouting in endless convolutions why,
that is something like it.²*

If you can imagine how everything else resembles a fungus.

¹ Ben Lerner, *The Hatred of Poetry*

² Charlotte Perkins Gilman, 'The Yellow Wallpaper', University of Adelaide Library: https://ebooks.adelaide.edu.au/g/gilman/charlotte_perkins/yellow/

AUTHORS'S NOTE

'grounds' was begun in the town of Bright, which sits on Taungurung country under the peaks of the Australian Alps. In autumn, fungal fruit sends itself up from the wet roots of this region's considerable plantation and native forests. While staying there briefly in 2016, my husband Tim, dog Crumpet and I found typically extraordinary examples of mycorrhizal fungi on our daily walks. In the morning mists they would be waiting, sometime decaying, sometimes emerging:

A walk in the Victorian bush in Autumn after rain.

In roots of the ribbon gum
metaphor moves like spores
or crumbs ambling uphill.
The colour of its rough speech
bubbles/paradise, trouble. The colour of infected nymphs.

During that visit to Bright I received a commission to make a new poem in response to the *University of Melbourne Herbarium* (MELU). I knew at once that fungi could be the motif, but I was bored by certain modes of 'landscape' poetry. The aesthetics of landscape are imperial, as summarised by *Timothy Morton*: 'the idea of landscape as a picture in a frame ... It's less about land, then, and more about scape. We talk about the mood of a landscape, the feeling it evokes in us.'¹ This is a limitation of vision to which many Indigenous and settler Australian poets seek to write alternatives.²

The more I read about the kingdom of fungi, too, the more I was discouraged from fraudulently aping mycological descriptions, or besting its folkloric capital with new mythos. If fungi were to be a poetic figure, they had to be one of ambiguity: a suggestive tissue of connections between kingdoms and 'grounds' or fields, but not available to my ownership. The discourse of the fungal 'colony' was impossible to ignore at Bright, so near the bogong feasting grounds yet with so little acknowledgement of Country in public spaces:

Ice thrashes in the river, we read the pale history on its banks.
Books say native bread doesn't rise in such a volatile climate.

Yet the metaphor of mycorrhizal colony could mean continuity and resistance as well as invasive settlement. Similarly, I understood that fungi stood for a whole paradigm of local horror; an extension of the gothic bush narrative. In that genre, native Australian ecologies possess an alien nature that represents the settler's fear of submitting to an Indigenous reality. The source of this fear relies on a colonial conflation of Indigenous people and organisms, but it also imports signs from European myth and narrative.

When I entered the MELU collection, I found a rarified, specialist site. Its specimens are housed in necessarily obscure conditions, such that a guide like the terrific curator, *Jo Birch*, is required for access as well as understanding. She had laid out for me a specimen from the Banks and Solander expedition of 1768. Although it wasn't fungal, the spectre of this ominous, pre-colonial souvenir was meaningful. The space in which I was to formally encounter fungi was framed by the Linnean system of identification and by the name of *Joseph Banks*, who advocated for British colonial settlement in Botany Bay. Like the fungi I was to see at MELU, this specimen collected in far north Queensland was bright yet dislocated:

fragile metaphors tremble and reach
in custom-made boxes
forever 21 degrees.

But my research into the MELU collection also yielded the watercolours of Malcolm Howie, a distinguished botanical illustrator of Victorian fungi. Learning about Howie's disabling condition – and his death at an age not far from mine – I started to think about another way to read fungi, that is, as an extension of the artist:

Malcolm Howie, painter of fungi
bound his watercolours and died, aged 36.

From age 16 he was unable to walk, and towards the end of his life only able to paint with movements of his wrist.

I consider making a crude analogy out of his demise.

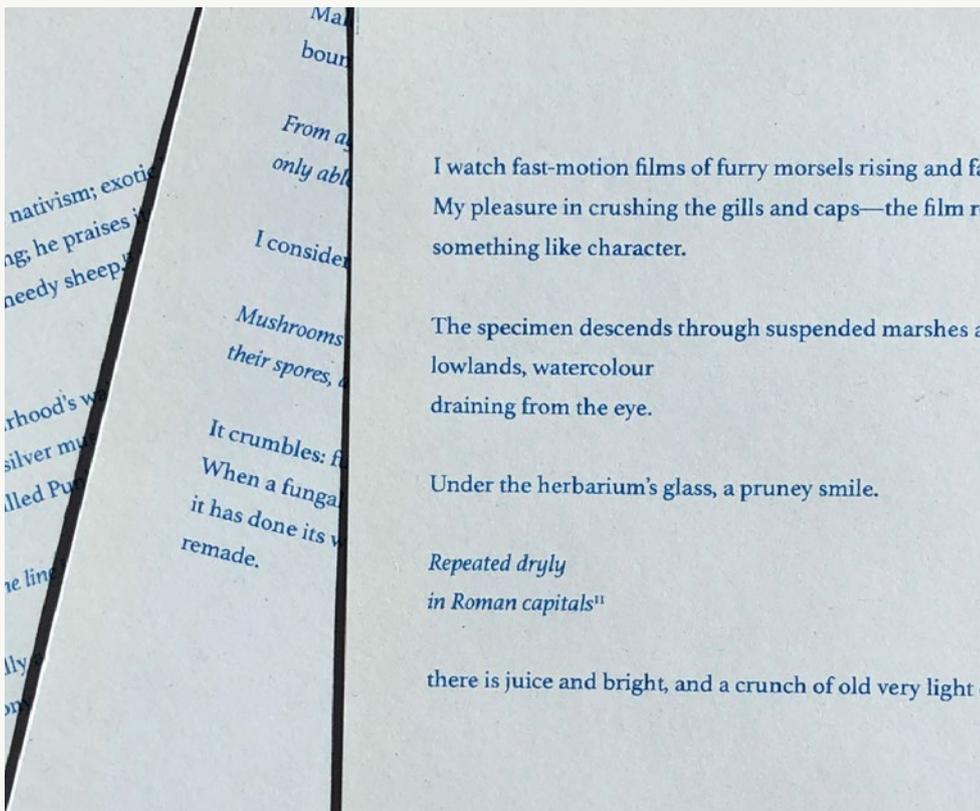
Mushrooms spring up with autumn rain, expand, shed their spores, and decay; all in a matter of weeks.

In this analogy the body of the artist might be a vulnerable tissue, or a reviving presence. Here, the figure of fungi helps the reader to make connections between spheres, but exceeds being simply a poetic or theoretical vehicle.

'grounds' could never have been expressed as a lyrical or descriptive expression of a human eye gazing upon the more-than-human world. Thematically, 'grounds' is on a continuum with all of my poetry and poetics, but in form it distinguishes itself. Given its proliferating and coincident motifs of settlement, horror, and empathy, I decided to allow the text to yield a series of attempts upon the theme. I was thinking of influences from the Australian long poem tradition, like Laurie Duggan's *The Ash Range* and John Anderson's *the forest set out like the night*.³ In these temporal and spatial explorations of geography, toponymy and memory, the descriptive landscape mode is troubled and attenuated. I realised that the rhizomic structure of 'grounds' also reflected the way that fungal colonies move underground as strands of hyphae, spreading and waiting for opportunities to surface. This half-visible form seemed to suit the concerns and attempts of 'grounds'. It allowed me to set aside conclusiveness or accuracy – scientific motivations – and focus on how the poetic medium could handle, unfold and interpret fungi with ambiguity.

'grounds', therefore, contains a number of voices. It creates a hybrid of verse and prose formats, using an essayistic voice when research is useful, and a lyrical one when imagination steps in. The first-person voice performs my own poetic navigations of the theme; the second person voice implicates the reader in a collective, cultural problem; and the third person voice applies a critical perspective. It also liberally collages from research materials, which are quoted in italics. The quoted voices suggest the crowd of possible sources that might inform the concerns of the poem. There is a sense of excess to this multiplicity of voices, as there is to the serial form. The citations reveal the underside of the text, a product of serendipity and confluence. They also intend to point out the provisionality of its response to the questions it raises.

Commissioned for the exhibition, Art & Herbarium at Lab 14, Melbourne, in March 2017, 'grounds' had to be first conceptualised as a textual object. In this context, it had to compete with visual and aural works, and as a fairly dense piece of language it would benefit from reading outside of the exhibition space. These requirements led me to a presentation that organically extended the poem's form and structure. I printed the text as a set of loose, double-sided and unnumbered pages, and made copies of these freely available for the audience to take. Conceptually, this textual 'event' allowed a decentralised reading experience that favoured chance sequencing and, therefore, porous and proliferative affects. I decided that a risograph print would convey some earthiness of style, and that A5 pages would be a convenient takeaway size. These were made by *Room Press* based in Hobart, because I admire printer *Sarah McNeil's* work for the Melbourne graphic writer *Chris Gooch*. For 'grounds' Sarah used a natural, heavy card with ultramarine ink.



Pages from the original printed *Art & Herbarium* Exhibition Catalogue

I have extensively revised the original text for its next lives, including for vocal performance at Melbourne's Botanical Gardens for the *New Shoots* event, *Melbourne Writers' Festival* 2017, and podcast by *The Red Room Company*; plus publication in *Australian Poetry Journal*. For its republication in *Unlikely* I have also decided to make the page-based text dynamic using the digital medium. Appropriately, 'grounds' has become a formal prototype for a longer work I am now researching and writing.

This work was made on *Taungurung* and *Wurundjeri* lands never ceded. I respectfully acknowledge permission granted by *Natalie Harkin* and *Lorraine Padgham* to use their words in the text. I would also like to thank my reviewers, who offered thoughtful remarks towards the refinement of this text for *Unlikely*.

- 1 Morton, Timothy, 'Zero Landscapes in the Time of Hyperobjects', *Graz Architectural Magazine* 7 (2011), p80.
- 2 Cassidy, Bonny, 'Talking To A Stranger: Decolonising the Australian "Landscape" Poem', *Plum-wood Mountain* 4.1 (2017): <https://plumwoodmountain.com/talking-to-a-stranger-decolonising-the-australian-landscape-poem/>
- 3 Duggan, Laurie, *The Ash Range*, Shearsman Books, 2005; Anderson, John, *the forest set out like the night*, Black Pepper Publishing, 1995.

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HERBARIUM No.6

CULTURAL LANDSCAPE VIC

By *Jessica Hood*

‘Cultural Landscape Vic’ project is produced in response to the University of Melbourne Herbarium (MELU) collections, focusing on the social and cultural narratives that are additional to the scientific methodologies employed in recording, categorising and digitally archiving herbarium specimens. This online platform engages with the cultural and environmental heritage of actual collection sites, posing the following questions: What are the relationships between community narratives of place, collecting individuals, the scientific focus of the specimens and MELU as a collection institution? How might a public engagement with these narratives and relations increase environmental literacy? By expanding on the digital availability of narratives surrounding the MELU collection, this work encourages public audiences to access, utilise and contribute to these narratives.

MARANOA GARDENS



LIST OF SPECIMENS

Acacia gracilifolia, 1961 | *Acacia pubescens*, 1944 | *Acacia verniciflua*, 1962 | *Agonis flexuosa*, 1992 | *Angophora costata*, 1938 | *Astartea heteranthera*, 1992 | *Baeckea imbricata*, 1993 | *Beaufortia schaueri*, 1992 | *Beaufortia schaueri*, 1993 | *Callistachys lanceolata*, 1944 | *Callistemon viminalis*, 1993 | *Calytrix tetragona*, 1992 | *Chamelaucium ciliatum*, 1992 | *Corymbia calophylla*, 1991 | *Darwinia citriodora*, 1992 | *Darwinia fascicularis*, 1992 | *Darwinia pinifolia*, 1992 | *Eucalyptus cinerea* subsp. *Beechworth*, 2005 | *Eucalyptus cloeziana*, 1983 | *Eucalyptus globoidea*, 1947 | *Eucalyptus leucoxylon* subsp. *megalocarpa*, 1938 | *Eucalyptus perriniana*, 2005 | *Eucalyptus pleurocarpa*, 1991 | *Eucalyptus pulverulenta*, 2005 | *Eucalyptus pulverulenta*, 2005 | *Eucalyptus risdonii*, 1938 | *Eucalyptus tetraptera*, 1938 | *Eucalyptus verucata*, 1938 | *Homoranthus darwinioides*, 1992 | *Homoranthus flavescens*, 1992 | *Hypocalymma angustifolium*, 1992 | *Jacksonia scoparia*, 1944 | *Kunzea arnbigua*, 1992 | *Leptospermum polygalifolium* subsp. *howense*, 1992 | *Melaleuca elliptica*, 1992 | *Micromyrtus ciliata*, 1992 | *Orthrosanthus multiflorus*, 1944 | *Verticordia chrysantha*, 1992 |

BURNLEY GARDENS



LIST OF SPECIMENS

Acacia, 1972 | Acacia, 1945 | Acacia adunca, 1944 | Acacia baileyana, 1972 | Acacia baileyana, 1978 | Acacia binervata, 1943 | Acacia binervata, 1964 | Acacia cardiophylla, year unknown | Acacia drummondii, 1970, Acacia drummondii, 1969 | Acacia drummondii, 1948 | Acacia elata, 1963 | Acacia elata, year unknown | Acacia gracilifolia, 1970 | Acacia howittii, 1940 | Acacia howittii, 1965 | Acacia iteaphylla, 1968 | Acacia itea phylla, 1969 | Acacia longi folia, 1964 | Acacia maidenii, 1962 | Acacia montana, 1945 | Acacia neriifolia, 1972 | Acacia obtusata, 1945 | Acacia podalyriifolia, 1965 | Acacia podalyriifolia, 1970 | Acacia prominens, 1972 | Acacia pruinosa, 1945 | Acacia pulchella, 1972 | Acacia saligna, 1970 | Acacia saligna, 1945 | Acacia terminalis, 1965 | Acacia vestita, 1972 | Acacia wattiana, 1942 | Achillea, 1945 | Achillea, year unknown | Achillea millefolium, year unknown | Achillea millefolium, 1950 | Achillea ptarmica, 1964 | Achillea ptarmica, 1964 | Achillea ptarmica, 1965 | Aconitum, year unknown | Ageratina riparia, 1944 | Ageratum houstonianum, 1945 | Alisma plantago-aquatica, 1977 | Allocasuarina torulosa, 1970 | Allocasuarina torulosa, 1983 | Anemone xhybrida, 1968 | Anemone xhybrida, 1968 | Anemone xhybrida, 1977 | Anemone hortensis, year unknown | Anthemis, 1945 | Araucaria bidwillii, 1973 | Arctotheca calendula, 1945 | Arctotheca calendula, 1980 | Argyranthemum frutescens, 1972 | Argyranthemum frutescens, 1983 | Aster, 1964 | Aster, 1972 | Aster, year unknown | Aster amellus, year unknown | Asteraceae, 1945 | Bergenia x schmidtii, 1989 | Buddleja davidii, 1968 | Caesalpinia gilliesii, 1964 | Caesalpinia gilliesii, 1968 | Caesalpinia gilliesii, 1963 | Calliandra tweedii, 1945 | Cercis canadensis, 1945 | Cercis siliquastrum, 1964 | Chorizema cordatum, 1963 | Chrysanthemum, 1944 | Chrysanthemum, 1945 | Chrysanthemum, 1945 | Chrysanthemum maximum, 1945 | Clematis, 1965 | Clematis, year unknown | Clematis, 1967 | Clematis, 1965 | Colutea, year unknown | Colutea arborescens, 1945 | Conyza bonariensis, 1982 | Conyza bonariensis, 1986 |

**LIST OF
SPECIMENS
[CONTINUED]**

Conyza bonariensis, 1945 | *Conyza bonariensis*, 1983 | *Conyza bonariensis*, 1983 | *Conyza bonariensis*, 1983 | *Conyza canadensis*, 1946 | *Conyza canadensis*, 1945 | *Coreopsis lanceolata*, 1945 | *Cosmos*, 1964 | *Cosmos bipinnatus*, 1945 | *Cosmos bipinnatus*, 1945 | *Cota tinctoria*, 1945 | *Contula australis*, 1983 | *Cotula bipinnata*, 1973 | *Crotalaria laburnifolia*, 1964 | *Crotalaria laburnifolia*, 1965 | *Crotalaria laburnifolia*, 1963 | *Cuphea*, year unknown | *Cuphea ignea*, 1972 | *Cuphea ignea*, 1983 | *Datura stramonium*, 1983 | *Delphinium*, 1945 | *Delphinium*, year unknown | *Dietes robinsoniana*, 1945 | *Dracocephalum*, 1945 | *Erigeron*, 1945 | *Erigeron karvinskianus*, 1964 | *Erioccephalus*, 1945 | *Erodium cicutarium*, 1973 | *Erodium moschatum*, 1970 | *Escallonia*, 1945 | *Escallonia rubra*, 1972 | *Eucalyptus grossa*, 1977 | *Eutrochium purpureum*, 1965 | *Eutrochium purpureum*, 1963 | *Felicia amelloides*, 1972 | *Ficaria verna*, 1983 | *Gaillardia xgrandiflora*, 1945 | *Gaillardia pulchella*, 1945 | *Gaillardia pulchella*, 1945 | *Gaillardia pulchella*, 1945 | *Galinsoga parviflora*, 1983 | *Galinsoga parviflora*, 1983 | *Gastrolobium celsianum*, 1972 | *Gazania*, 1966 | *Geranium robertianum*, 1968 | *Gleditsia triacanthos*, year unknown | *Hardenbergia comptoniana*, 1945 | *Hardenbergia violacea*, 1966 | *Helenium autumnale*, 1945 | *Helianthus annuus*, 1945 | *Helleborus*, 1965 | *Helleborus niger*, year unknown | *Helminthotheca echioides*, 1973 | *Helminthotheca echioides*, 1945 | *Helminthotheca echioides*, year unknown | *Heuchera sanguinea*, 1982 | *Hovea elliptica*, 1972 | *Hydrangea macrophylla*, 1944 | *Hypochaeris radicata*, 1986 | *Indigofera decora*, 1964 | *Indigofera decora*, 1968 | *Indigofera decora*, 1945 | *Indigofera decora*, 1963 | *Iris ensata*, 1977 | *Iris japonica*, 1950 | *Iris japonica*, 1966 | *Iris pseudacorus*, 1945 | *Iris pseudacorus*, 1964 | *Iris sibirica*, 1957 | *Iris unguicularis*, 1950 | *Iris xiphium*, 1945 | *Ixia viridiflora*, 1963 | *Jacobaea maritima*, 1972 | *Kennedia microphylla*, 1970 | *Kennedia nigricans*, 1972 | *Kennedia nigricans*, 1950 | *Kennedia prostrata*, 1972 | *Lablab purpureus*, year unknown | *Laburnum anagyroides*, 1950 | *Lagerstroemia indica*, 1944 | *Lamiaceae*, 1965 | *Lamium maculatum*, 1966 | *Lapsana communis*, 1968 | *Lapsana communis*, 1945 | *Lapsana communis*, 1945 | *Lathyrus odoratus*, 1965 | *Lathyrus odoratus*, 1945 | *Lavandula dentata* var. *candicans*, 1984 | *Leonotis leonurus*, 1948 | *Leonotis leonurus*, 1968 | *Lespedeza*, 1950 | *Lupinus*, 1963 | *Lupinus*, 1964 | *Lupinus polyphyllus*, 1944 | *Medicago arabica*, 1944 | *Medicago lupulina*, 1983 | *Medicago polymorpha*, 1971 | *Medicago sativa*, 1944 | *Melilotus indicus*, 1983 | *Melilotus indicus*, 1945 | *Melilotus indicus*, 1944 | *Melilotus officinalis*, 1973 | *Monarda*, 1964 | *Montanoa bipinnatifida*, 1945 | *Nigella damascena*, year unknown | *Olearia iodochroa*, 1972 | *Olearia lirata*, 1944 | *Origanum vulgare*, 1945 | *Paeonia*, year unknown | *Papaver*, 1945 | *Papaver*, 1945 | *Papaver hybridum*, year unknown | *Papaver hybridum*, year unknown | *Papaver nudicaule*, 1982 | *Phaseolus vulgaris*, 1964 | *Phlomis fruticosa*, 1948 | *Physostegia virginiana*, 1966 | *Physostegia virginiana*, 1963 | *Pisum sativum*, 1965 | *Pisum sativum*, 1945 | *Plectranthus ecklonii*, 1964 | *Populus nigra*, 1982 | *Prostanthera baxteri*, 1984 | *Prostanthera melissifolia*, 1943 | *Prostanthera nivea*, 1970 | *Prostanthera nivea*, 1984 | *Prostanthera ovalifolia*, 1943 | *Prostanthera rotundifolia*, 1984 | *Ranunculus*, 1968 | *Ribes sanguineum*, 1982 | *Roldana petasitis*, year unknown | *Romulea rosea*, 1944 | *Romulea rosea*, 1979 | *Rudbeckia laciniata*, 1945 | *Rudbeckia laciniata*, 1945 | *Salix alba*, 1972 | *Salix triandra*, 1977 | *Senecio jacobaea*, 1980 | *Senecio quadridentatus*, 1971 | *Senna artemisioides*, 1973 | *Senna artemisioides*, 1967 | *Senna artemisioides*, 1983 | *Senna artemisioides* subsp. *x coriacea*, 1943 | *Senna bicapsularis*, 1950 | *Senna candolleana*, 1966 | *Senna multiglandulosa*, 1945 | *Sonchus oleraceus*, 1943 | *Sonchus oleraceus*, 1983 | *Sophora howinsula*, 1965 | *Sophora howinsula*, 1965 | *Sparaxis bulbifera*, 1963 | *Swainsona galegifolia*, 1945 | *Swainsona galegifolia*, 1945 | *Tagetes erecta*, 1964 | *Tagetes patula*, 1945 | *Tagetes patula*, 1945 | *Tanacetum parthenium*, 1964 | *Templetonia retusa*, 1972 |

**LIST OF
SPECIMENS
[CONTINUED]**

Tragopogon porrifolius, 1944 | Trifolium angustifolium, 1972 | Trifolium
campestre, 1945 | Trifolium cernuum, 1944 | Trifolium glomeratum,
1944 | Trifolium incarnatum, 1943 | Trifolium ornithopodioides, 1944 |
Trifolium pratense, 1943 | Trifolium pratense, 1943 | Trifolium repens,
1983 | Trifolium repens, 1964 | Trifolium repens, 1983 | Trifolium
repens, 1944 | Trifolium subterraneum, 1944 | Trifolium subterraneum,
1944 | Trifolium tomentosum, 1944 | Vachellia, 1965 | Vicia faba, 1966 |
Vicia tetrasperma, 1968 | Wisteria, 1964 | Wisteria sinensis, 1945 |
Wisteria sinensis, 1968 | Wisteria sinensis, 1963 | Xerochrysum
bracteatum, 1964 | Xerochrysum bracteatum, 1977 | Xerochrysum
bracteatum, 1964 | Xerochrysum bracteatum, 1983 | Zinnia
angustifolia, 1945 | Zinnia angustifolia, 1945 | Zinnia elegans, 1945 |
Zinnia elegans, 1945 | Zinnia elegans, 1945 |



Biographies

Tom Bristow is currently a key member of the Mellon Humanities for the Environment Australia Pacific Observatory, University of Sydney, and an Australian Research Council Fellow at the Centre of Excellence for the History of Emotions University of Melbourne. Tom also acts as editor for the journal *Philosophy Activism Nature*, and he is an advisory board member of the Australasian Consortium for Humanities Research Centres.

Tom has held fellowships with the Department of English Literature and the Institute of Advanced Studies in Humanities at the University of Edinburgh, the Humanities Research Centre at the Australian National University, the Department of English Literature at the University of British Columbia, and the Department of English at the University of Oregon.

He is the former President of the Association for the Study of Literature, Environment and Culture (Australia and New Zealand), author of *The Anthropocene Lyric: An Affective Geography of Poetry, Person, Place* (Palgrave Macmillan 2015) and co-editor of *A Cultural History of Climate Change* (Routledge 2016).

Website: <https://unimelb.academia.edu/TomBristow>

Jan Hendrik Brüggemeier is an artist and media producer. Jan's artistic interests lie in sound art and spaces for communication in the city and beyond. He holds a MFA in Media Arts & Design from the Bauhaus University Weimar, where he graduated from the chair for Experimental Radio. He relocated from London, where he worked for the AA School of Architecture, to Melbourne to complete his Creative PhD at the Centre for Creative Arts at La Trobe University, where he now resides. He is currently a lecturer in Professional Communication at RMIT. Jan has been actively involved in the shaping and running of international media networks and he has curated numerous art festivals and exhibitions. He was the artistic co-director of the EU project *bauhaus lab 2009*, an international project network for contemporary interdisciplinary arts practice. His work has been shown internationally at venues like *Radio Saout*, *Marakech Biennale 5*, *Bauhaus Dessau Foundation*, *Goethe Institute Rome* and *Meteor Festival* in Bergen.

Website: <http://neture.org>

Biographies

Bonny Cassidy is the author of three poetry collections, and has a new book, *Chatelaine*, forthcoming from Giramondo in 2017. She is a critic and essayist on Australian poetry and poetics, and her work has been widely anthologised and published nationally and internationally. Bonny is Feature Reviews Editor for *Cordite Poetry Review*, and Program Manager and Lecturer for the BA Creative Writing, RMIT University. She has spent many years involved in the facilitation and coordination of public poetry programs and events, including collaboration with the National Gallery of Victoria, and running the Sporting Poets reading series.

Rosalind Hall uses sound technologies such as modified saxophone, electronics, percussion, field recordings and processing software to create immersive and moving live performances, compositions and soundtracks. In performance, she amplifies body sounds such as labouring breath and nervous pulse to enhance the transparency and dependency between body, instrument and presence and to extend the body into space. In composing, she is extending her sound sources by capturing, sampling and processing her recordings to make compositions that invoke a sense of claustrophobic infinity.

Rosalind's compositions have been exhibited at the National Gallery of Victoria, Gertrude Contemporary Art Space, Screen Space, the Adelaide Festival, Whitney Museum of American Art (US), Echigo Tsumari (Jp), Vuorikaiku Sound Gallery (Fi), Instants Chavirés, (Fr), LABoral Art Centre (Sp), Kulturdrogerie (At), and Museruole On the Air (It). Rosalind has released work independently and through Avant Whatever, Corpus Collosum Records, pan y rosas discos and Swarming Records.

Website: <https://soundcloud.com/rosalind-hall>

Elizabeth Hickey is an American visual artist who lives and works in Melbourne. Hickey completed a BFA in printmaking at the Victorian College of the Arts in 2012 and works primarily in intaglio. Hickey has exhibited extensively around Melbourne. As an artist, Hickey is drawn to the challenge of the process based discipline of printmaking due to the collaboration between artist and material. At the heart of her practice is a love of drawing. Her work is figurative, focusing on the domestic realm and the narratives that reside in the everyday objects that surround us.

Website: <http://www.elizabethhickey.com.au>

Biographies

Jessica Hood is an artist based in Melbourne, Australia. Her practice and exhibition projects work with heritage collections associated with gardens, landscapes and cultural sites and have often taken a documentary or archival approach. Jessica has produced work in response to the Adelaide Botanic Gardens and its collections, the Royal Botanic Gardens Kew and the Abbotsford Convent, Melbourne. In 2013 she completed a PhD at Monash University in Fine Arts, titled *Garden/Archive: Photographic Relation and Exchange*.

Website: <http://www.jessicahood.com.au>

Harry Nankin is an Australian photographic environmental artist and educator. Under the shadow of the global ecological crisis, the focus of his work for over thirty years has been our contested ethical and material relationship with the non-human world. At the core of his practice is the 'ecological gaze': an aesthetic and poetic engagement with the tension between the phenomenology of wonder and a classical Aristotelian conception of tragedy. In pursuing an ecological gaze, he has replaced the unexamined anthropocentrism and 'trite epiphanies' of the landscape genre with methods and subjects that more clearly signify ecologies of place. Instead of capturing reflected light he prefers to bear witness to the tragic loss of systems of ecological relations through the ritual act of 'gathering shadows' without a camera: just as the flash of the nuclear bomb dropped on Hiroshima caught the shadows of its victims at the instant of their perishing. Since 1993 he has been creating camera-less images in the studio and on location in forest, desert, atop mountains and under the sea. Employing procedures that are equally land art, ritual and photography he 'turns the landscape into the camera'. Harry's work has been exhibited, reviewed, short-listed for prizes and acquired for collections on three continents. He has written widely on environmental and photography questions and lectured on photography and art in tertiary institutions for over twenty years.

Website: www.harrynankin.com

Biographies

Josh Wodak is a researcher, artist and Lecturer at UNSW Art & Design. His work critically engages with cultural and ethical entanglements between environmental engineering and conservation biology as means to mitigate species extinction and biodiversity loss in the Anthropocene. He holds a BA (Honours) in Anthropology (Sydney University, 2002), a PhD in Interdisciplinary Cross-Cultural Research (Australian National University, 2011) and has exhibited his media art, sculpture and interactive installations in art galleries, museums and festivals across Australia and internationally.

Website: <http://arch-angle.net>

Danielle Wyatt is a Research Associate at the Research Unit in Public Cultures at the University of Melbourne. Her research sits at the intersection of studies of art and public culture, and theories of governance, place and belonging. Her work has appeared in the Journal of Arts and Communities, the Journal of Australian Studies, the International Journal of Cultural Policy, and the Journal of Intercultural Studies.