

Más allá del fin N° 3

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Editorial

Carla Macchiavello and Camila Marambio

Dear Carla,

For the sake of the reader I’m going to practice my memory and try and recount how this third issue of *Más allá del fin* came about. First, an invitation. Invitations are usually at the start of all (love) affairs. We got asked out by Helen Hughes. *Más allá del fin*, a lightweight periodical that reports on the findings of the nomadic collective research Ensayos. With an inaugural issue in French, Spanish, and English, designed and printed in Bogotá, Colombia, *Más allá del fin* was first published by the Kadist Art Foundation on the occasion of the exhibition *Beyond The End* in May 2014. You lived in Bogotá then, and I was in residence at Kadist in Paris so from a distance we envisioned a newspaper containing articles, advertisements, and correspondence that could give readers in France a sense of Tierra del Fuego, the archipelago that Ensayos wonders about/wan-

ders within. Asking you to join forces with me as co-editor was a natural extension of my admiration of your many skills. I always wanted to be paired with you on assignments when we were classmates in the Bachelor of Aesthetics at university. Your brilliant mind, your commitment to reading, your strict discipline, your shy smile, your strong will, and your creative theorising still today make you my favourite study partner. But, the birth of CM2 (Carla Macchiavello and Camila Marambio) was also a continuation of the Ensayos methodology. Years after we both finished our Masters in New York City and had grown somewhat estranged from each other you approached me wanting to know more about Ensayos; as an offshoot of your Ph.D. you were thinking of writing a book on performative artistic practices and wanted to focus on Ensayos as one of your case studies. Our first extended interview for the purpose of your book took place in Santiago, Chile. We sat at Emporio La Rosa in Lastarria and you asked me such thoughtful questions that I was able to fully flesh out the oddball tactics of Ensayos, one of which, I said, ‘was that to fully comprehend Ensayos you have to form a part of it. You have to feel responsibility towards Tierra del Fuego. It is an activist pre-formance, a being in tune with the ails and wants of an archipelago so vast that it overwhelms the human capacity to cope with it.’ That is why in our first issue of *Más allá del fin* you came to write an essay about your one-day visit to Karokynka (the main isle of the archipelago). This foreigner perspective contrasted with the news reported by those of us that had been experiencing Karokynka’s vastness for four years. The reader can access that first issues online via www.ensayostierradelfuego.net.

The second issue was the consolidation of the periodicity of *Más allá del fin*. A year after the first issue, #2 was purposefully constructed in an undisciplined way (which makes me smile now that we are parasitising Discipline). The Bruce High Quality Foundation University in New York City was the stage for our experimental feminist poethical eco-activist second issue. We had set our sight on each article for that issue functioning as a sort of script for a performance to be undertaken by the reader. In doing that I’m not sure that we knew that we were sacrificing that issue to our learning, and hopefully that of our university students. As sacrifices go, however, the maturity of the contents was at peak, partly because in 2015 Ensayos’s inquiries were fuelled by the Paris COP, by our residency at the Institute for Art and Olfaction, by the inclusion of outstanding new research collaborators (Bruno Latour, Denise Milstein, Carolina Saquel, and Cecilia Vicuña). Though you were no longer living in Bogotá at that time we kept our Colombian designers, but printed in New York City where you had relocated to. Mostly plotted from a great distance, this issue nevertheless gave us a chance to spend time in each other’s hometowns. We physically compaginated the second issue on Long Island, but first brooded over our discontents with the climate crisis on the shores of Chile’s fifth region, in Papudo, and we did this in the company of the Norwegian artist/curator Karolin Tampere. The migration of our thinking, of our waste, of our responsibility was at the heart of that issue, also available online.

It strikes me now that distance is the stamp of *Más allá del fin*. As the name suggests we commune with what is 'Beyond the End', meaning that which is out of our sight, and issue #3 is no different. Full of tunnels and cavities that conjoin Chile and Australia, issue #3 of *Más allá del fin* is the honeycomb issue.

Dear Camila,

I was also home away from home, at The Clark Institute, and certainly estranged from myself, when I began to work on the third issue of *Más allá del fin*, writing the questions for Juan Dávila.

We were then still deciding on collaborators for the issue. You had proposed a triadic, triangular, third way kind of method for this collaboration, so that two texts from each side of the Atlantic, from different coasts, would share this space, this sea of printed matter, and converse from their localities, from their differences, from their unknown commonalities. A third text would enter this conversation, not as a bridge or meta-commentary, but a poetic response based on shared concerns and passions. You provided so many ideas about possible collaborators based on urgent topics that mattered now not only in Tierra del Fuego but also in Australia and its southern, island tip, Tasmania, that the list kept growing and growing (until very, very recently). Your enthusiasm and this project kept me going during what were devastating times.

Only a few months later, as I read and got enraptured by the texts that began to arrive, I began to also think more seriously of the difficulties ahead, the problems of our triangular methods, questions that came up regarding our own motivations for doing this. Was this therapy? Who were we serving, healing, helping, reaching toward? What were we trying to bring together, like the open sides of a wound? Whose wound?

We were trying to think about our editorial, what were the main ideas guiding this issue of *Más allá del fin*, which seemed so different from the previous numbers, yet organically connected to them ... So back then, I wrote this, responding to several texts I had been editing that were forcing me to confront my own biases ...

tenemos que hacer un

we need to

SERIO

SERIOUSLY

acto de

actively

Auto-reflexión

self-reflect

sobre nuestros propios

about our own

aparatos/maquinarias/ideologías

apparatuses/machineries/ideologies

¿líneas, trails? (para seguir a Sarita y a

lines, trails? (to follow Sarita and

Muecke-Paddy Roe y sus trayectos caminos)

Muecke-Paddy Roe and their trajectories)

de traducción

of translation

de intereses

of interests

in other words ...

are we just being

for instance

'inclusive'

from a

privileged

academic

urban

lettered

point of view,

or are we

giving up power

providing material

to

others

which they might find useful

to build

their own

futures? (as Muecke says)

¿estamos colaborando con otros

are we collaborating with others

o se trata aun simplemente de

or is this still simply about

seleccionar, añadir, incluir?

selecting, adding, including?

¿quizás la pregunta es preguntarnos

maybe the question is to ask ourselves

why are we doing this, choosing this?

(for we are still choosing, framing).

it might be good

to hold up this mirror

to ourselves

see the cracks

see the reflections

play a bit on

why we are so fascinated by

in Michaels/Downey, et al.

what do you

think/feel

about this?

can we dare

make an

introduction

that unsettles us

reveals our

processes of

(selves-) reflection

obsession/passions

is this

editorial

our mirror?

or more like a lacuna

like a surface

mirror-like

yet dense

murky

slippery slip slop

and with such

unfathomable

depths?

can we look

deeply

at ourselves

thinking ourselves

thinking looking knowing intuiting

feeling being?

(can we invent such a word?

is it just reflexivity?

or something *más allá*?)

mon ami

de la vida,

qué rico

qué placer

que me pongas a

pensar

en todas estas

cosas.

Dear Carla,

I received your fragmented text and began instantly to follow your proposition of self-reflexivity and you know where it took me? Back to the relationships that engendered every invitation to each author. There is not one author in this issue to which I don't feel immense affinity towards, there is no one text that doesn't form part of a constellation of voices that are forever ringing in my ears. When I tune into 'my own' thoughts I hear a conversation going on between Patricia Messier and Lola Greeno (having spent time in both their homes—in Punta Arenas and Launceston respectively—I even hear the reverb on their words bouncing off the walls), I hear calls by Giuliana Furci and Nico Arze, from the forests of Southern Chile, to Sarah Lloyd, in the forests of Tasmania: 'come Sarah look at this, what is this slime mould called?' I hear Stephen Muecke and Melinda Hinkson's thoughtful ruminations riding in after Greg Lehman's ode to the wind. Like a crystal, this issue of *Más allá del fin* is clear and transparent, a solid substance having a naturally geometrical regular form symmetrically arranged plane faces. What transpires in this issue is the formation of a precious mineral that I think/feel has healing powers.

The historical texts (Eric Michaels, Juan Downey, Jay Ruby, and Ursula Le Guin) are the dreaming substance, the spark of coincidence. That Michaels and Downey met, before you and I met, before I came to this *country*, Australia, is a revelatory tale of how no one person is in the know of their fates. Intertwining passions, burning to get good at being earthbound: that is what is at stake in this issue of *Más allá del fin*. Mary Graham speaks of the relational ethos of Indigenous knowledge and decades later you and I pick up the threads left hanging in the wind for us. Tying ourselves to deep time, surrendering to the migration of seeds, invoking the pain of extinction, the act-itude is to knead our differences to find our commonalities, matching words with other's words to create a babbling heterogenous brook that refreshes our parched and scarred psyches.

Dear Camila,

We are working with long time lapses
Waters away and yet lovingly connected through
these texts
And as we approach our deadline and
this issue, ambitious as it has been in a formless,
flexible way,
is being birthed,
I hear the echoes of ghosts throughout
the texts, whispering to each other, echoes
amplifying each other's voices
an endless horizon

Our triangular structure threatened
to dissolve
so many times in these months (ahhhmmmbition)
Yet we persisted
We let some things dissolve and
less dialectic than spurting crisply coiling growth
the triangles turned into spiralling waves
and we rolled with them.

I still hold
my doubts (they persist too)
as to how we become chorus, we solo, we
commune-y-cate.
Those questions keep shifting places and nag
less like ghosts though than familiar, family
presences
unresolved, not dissolving,
but motivating more thinking, more feeling,
desire, in short, of co-llaboration
(or a *Más allá del fin* #4, *pestañeo amoroso*).

Dear Carla,

It's my last day in Melbourne. I just met with Helen and nearly wrapped everything up with her. We discussed not being able to afford the price to reprint the chapters on Tierra del Fuego in Michael Taussig's *Mimesis and Alterity* and decided that though he has had some influence on this issue we can do without these texts. His public lecture 'Unpacking My Library' at the Institute for Postcolonial Studies, directed by Melinda Hinckson, and his masterclass at MADA, Monash University, as part of *Discipline, Más allá del fin*, were both dynamic and full of that particular Taussig flair. He listened intently to the questions asked of him and delivered thoughtful replies. Though Hema'ny Molina read his text for her chilling abridging essay, she also read Joaquín Bascopé's critical account of the historic intromission of foreigners in Tierra del Fuego and perhaps it is less significant to reproduce Taussig's creative reflection than to highlight the up and coming voices of women from the archipelago itself. It's been an important learning curve to negotiate with publishing houses big and small and I am happy that this issue includes a few historic texts (Michaels, Downey, and Ruby), but also texts that are otherwise found as chapters in whole books (Gomez-Barris, Neimanis, and Le Guin). This compilation of new and old writing stirs in me the image of a braid woven from the hair of different peoples, some of which are no longer even alive. This possibly monstrous combination is to me rather beautiful, traversing time and space, collapsing distance but not difference.

Salud,
Camila

Verso l'infinito

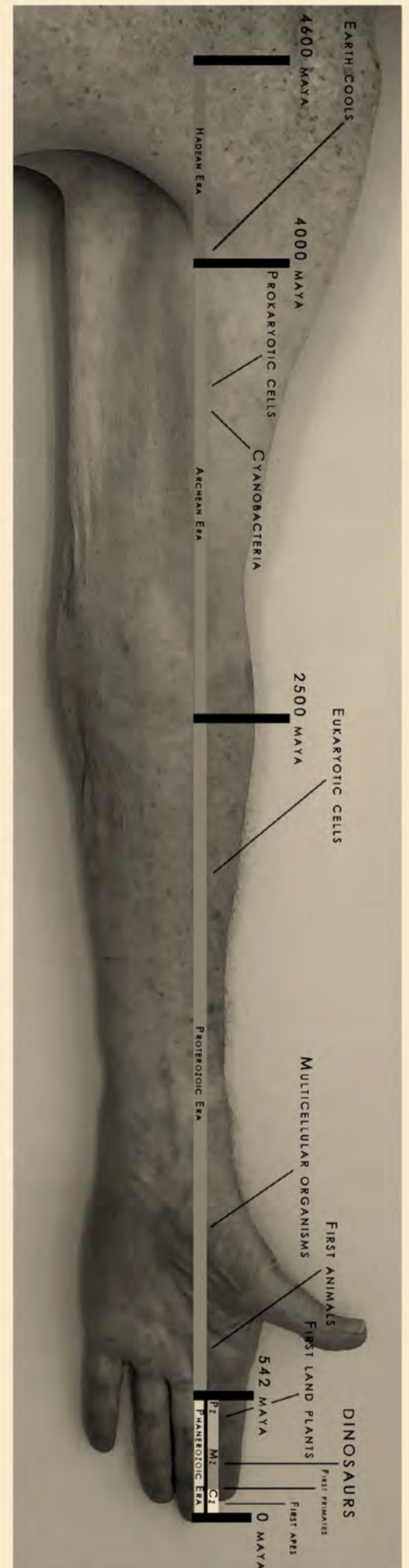
Lucy Bleach

Arm time scale

I ask my father to hold up his left arm, perpendicular to his body, as if he has his left indicator on. He is shirtless and is standing against a beige-coloured wall, so that the marbled palette of his skin seems to hover above space. My father is 90 years old, and there is a tender surrendering of his skin and muscle tone to gravity. I take a photo that crops the arm from his body at the shoulder, so that you can see where the arm would be joined to the body, with just the curve of his scapula, the edge of his torso, and his wispy underarm hairs connected to the outstretched arm.

I send the photo to my son and ask him to overlay a colour-coded line of the geologic time scale onto the image of my father's arm (referencing an online geological time-scale teaching tool). The Hadeon eon, the formation of the earth 4.6 billion years ago, starts the time scale below the clavicle and just before the crease of my father's underarm. The generation of prokaryotic cells (unicellular organisms) and cyanobacteria (the only photosynthetic prokaryotes able to produce oxygen) occurs between his underarm and elbow (the Archean eon). Eukaryotic cells form below the elbow joint, multicellular organisms evolve at the base of his thumb and the first mammals appear in the palm of his hand (Proterozoic Eon). The first land plants appear at the metacarpal knuckle (Paleozoic Era), the dinosaurs appear on the first finger joint (Mesozoic Era), and the first primates and first apes occur on the digital phalange at the base of the fingernail (Cenozoic Era). Contemporary humanity and the Anthropocene epoch are located just at the outer edge of the finger nail of my father's rude finger.

The final image presents an intimate interpretation of deep time, geologic history of the earth and human precarity, digitally tattooed onto my father's aging body by my emerging adult son.



Deep time arm. Photograph: John Bleach, Will Joseph, Lucy Bleach.



Haulage Unconformity. Photograph: Ilona Schneider.

Unconformity

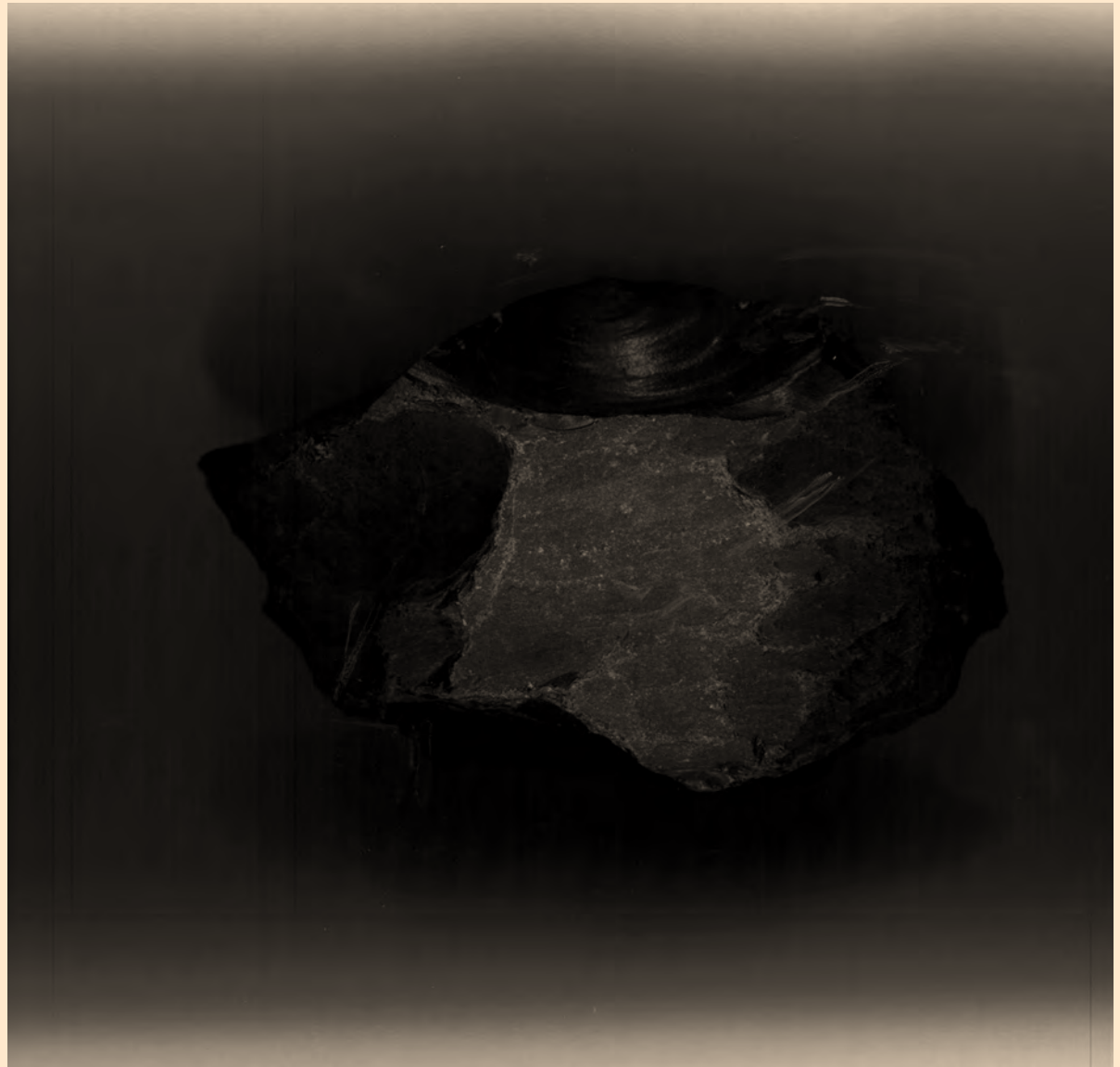
The Haulage Unconformity is a rock face in Queenstown, Tasmania that evidences geological complexity and mis-alignment of rock layers. An *unconformity* represents a ‘non-conforming’ break in a rock sequence, representing a gap in the geologic record, where rock bodies of significantly different times make unlikely contact, simultaneously indicating an absence of time and a unidirectional flow of time. The significance of the unconformity was recognised in the eighteenth century by scientist James Hutton, who proposed that the spatial relations between rock strata translated into temporal relations and implied a long earth history that supported a notion of deep time.

Metastability

Obsidian is a natural glass or vitrophyre, a dark coloured volcanic glass that lacks a crystalline structure due to its fast formation. Obsidian can be shaped by its expulsion from the earth, its propulsion through the air, and its rapid cooling during its aerial trajectory. The force of this projection remains as a vibrational echo within the glassy material.

This is an image of a piece of obsidian scanned on a photocopier. The black glassy rock was placed on the photocopier glass, which transmitted ultraviolet rays from the copier’s light source through the copier’s glass onto, into, and around the rock. The obsidian floats in a space of light, captured by the carbon black of the copier’s toner.

Obsidian is metastable at the earth’s surface, over time its glassy form becomes fine-grained mineral crystals which are absorbed into surface material.



Obsidian on photocopier. Photograph: Lucy Bleach.

Archipelagic Wanderings in Trowunna

Denise Milstein

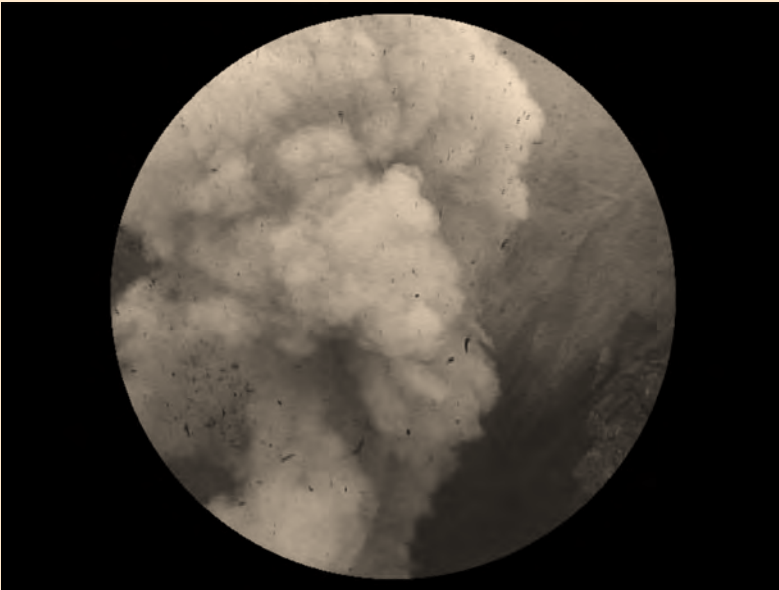
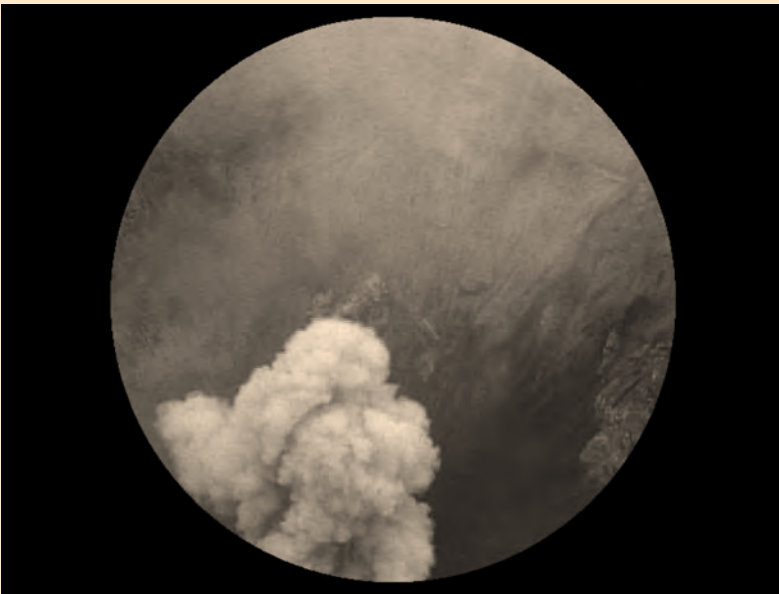
I thought of an alienness
greater than horizons, and I revealed
the lie of history. Because every call
reveals a premonition of infinite
distances. Without leaving my body
I learned from all the nights I wandered
in the forests.

—Jure Detela

Camila Marambio invited Bruno Latour and me to Tasmania, back in 2016. That July all three of us were presenting at a performance conference in Melbourne, which made it possible to embark on some archipelagic explorations together. I was familiar with Bruno's work as a philosopher and social scientist. His ideas had re-connected me to my own work in sociology at a time when I was sceptical of the discipline's epistemological foundations. And we had both collaborated with *Ensayos*, the nomadic research program Camila created in 2010. At the heart of *Ensayos* is Tierra del Fuego, the archipelago that extends south from the tip of South America. That Subantarctic network offers us a home of sorts, more floating than grounded—inciting of movement and relation, as archipelagos are wont to do. While the *Ensayos* web has evolved in this Fuegian realm, it has also expanded beyond it, to New York, to Paris, to Arctic Tromsø, and, with that trip, to Tasmania. As scientists, artists, and local agents, we, *Ensayistas*, bring to our collaborations an openness to letting our disciplines and practices unravel. Our projects often evolve into undisciplined collaborative experiments where process takes precedence over outcome.

Our brief sojourn in Tasmania was planned to bring us into contact with other artists and scientists concerned with human geography, ecology, and the legacy of colonialism on human and more-than-human social worlds.¹ Our itinerary carried us along pre-drawn paths from destination to destination, but the connections between the places and the people we met were ours to draw. The zigzag road up Mount Wellington determined our views of Hobart below. The Channel Highway out of the city sped us to the ferry at Kettering, which took its sweet time across the placid d'Entrecasteaux channel to Bruny Island. The skinny, solitary road over Bruny's isthmus shot us straight south to Adventure Bay, where we lingered at Two Tree Point before continuing to the lighthouse at the southern tip. There we stood at the edge of a cliff, our archipelagic gaze skipping over the water to the next island, expecting another one beyond it. Two years later, I can still reach back to those places in my mind, and find them interwoven with lingering thoughts from that time.

When, in my first draft of this essay, I try to draw the map of our travels, the distance from Tasmania, both in time and space, it produces a series of disconnected abstractions. It consists of three binaries: life and death, which, in Tasmania, seemed to split and overlap in ways I had not witnessed before; dogma and identity, which threatened to engulf each other in the lingering trauma of genocide and colonialism experienced by some of the people we met there; and representation and invention,



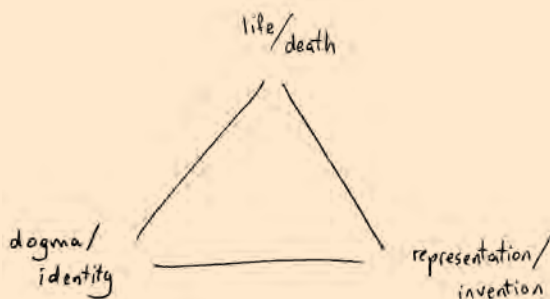
Mt Yasur Eruption, 1–3. Photographs: Lucy Bleach.

Charge

Sometime in December 2011, I am on Mt Yasur Volcano, Vanuatu. I move down onto a rock shelf to get closer to the crater and set up my tripod. Every three or four minutes the volcano sends up sulphur clouds before releasing an unbelievable crack, like the inside of a thunderhead cloud. Then a great plume of smoke shoots up sending masses of glowing red

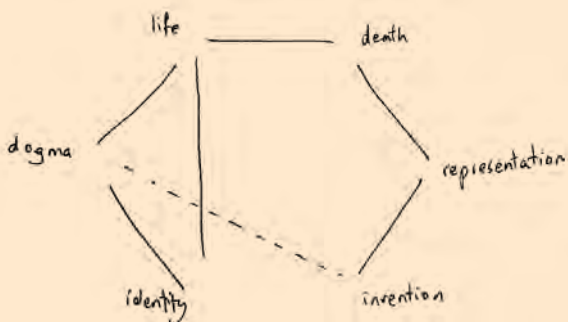
rocks that shift shape in the upward draft. The air is so charged that at times my finger receives an electric shock at the point where it makes contact with the metal record button on the camera. As I watch the slow-motion aerial tumbling of molten material expelled from deep within the earth, I can't recall ever feeling so simultaneously terrified and alive.

which defined the continuum along which Camila, Bruno, and I connected art and science in our conversations. Each one of the binaries forms the vertex of a triangle.



Immediately, the schema seems too tidy, and I resist. What do the lines connecting the vertices signify? And what does the triangle represent? I decide the triangle encloses the memory of my sensory experience in Tasmania. The vertices are the extremities to which my mind wanders from there, three extensions into abstraction from my memory of those days, an island with boundaries that shift as it is shaped and re-shaped through recollection.

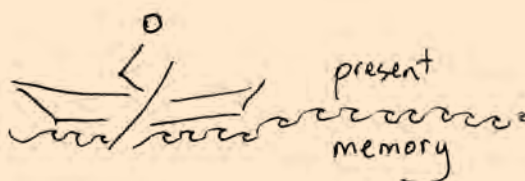
As soon as I begin layering the events of those few days onto the triangle, the three vertices stop making sense. I can envision multiple lines connecting all six notions into varied configurations, and the triangle settles into a hexagon with indefinite edges. In it, death connects to representation as much as to life. I can see the relation between identity and life on one side, identity and dogma on the other. Invention builds on representation and plays a role in breaking dogma. Dogma ensures survival in resistance, and therefore is connected to life. I realise that none of this will make sense to a reader without some grounding in our experiences.



Soon I become frustrated with my mind and its lazy acquiescence to binaries and triads. Discipline structures my thoughts as though the inside of my mind were a honeycomb. If my thinking could come closer to the geographic shape of our journey, then perhaps my ideas would better connect to the experience I would like to recount. And so, I decide to embark on an archipelagic, narrative account of our time in Tasmania, in the hope that it will admit a less disciplined structure of thinking, one that is shaped by the time and space we traversed. This essay is an experiment in connecting my internal map of abstractions to the shape of our trajectory. I begin by paddling away from my island of abstraction, along the interweaving boundary between present and memory.

Mount Wellington,
June 30 2016

Soon after Camila, Bruno, and I land in Hobart, Martin Moroni, forest manager and soil scientist, picks us up at the School of the Arts and drives us up Mount Wellington, promising a spectacular view of the city and its surroundings. But the summit is enveloped in fog, so we wind to an overlook a third of the way down the mountain, where we start a fire to grill the salmon Martin brought for lunch. We share our meal perched on a steep cliff overlooking the Tasmanian southeast. From this vantage point we can trace the creeping outlines of the Derwent estuary, metallic grey under heavy clouds, surrounded by blue-tinged hills and mountains. Mount Wellington reaches up into the fog behind us while Martin talks about Tasmania, its environmental challenges, and his work in forest management. He describes what he considers to be the overpopulation of trees on the island—a matchbox waiting for a spark and, in the case of the forest on Mount Wellington, an imminent threat to Hobart. Just a few months before our trip, Tasmania had seen its most intense season of fires in history, with over 100,000 hectares burned, a sixth of which was located in Tasmania's World Heritage Wilderness Area. This accounts for the urgency in Martin's tone as he outlines the conflict between the priorities of environmentalists and the interests of the timber industry.



All in all, about half of Tasmania is forested, including the fifth of the main island protected by World Heritage status. This woodland, which includes wet and dry eucalypt, blackwood, and cool, temperate rainforest, is the terrain of contestation among groups whose approaches to the forest mix conservation, preservation, and extraction in different measures. Fuel reduction, that is, the deliberate burning of forested areas to diminish the chance of wildfires, addresses a shared concern among environmental, industry, political, and citizen advocacy groups. It seems essential both to the health of the forests and to preserving human settlements. But there is little agreement on methods of fuel reduction, and approaches vary in their compatibility with the timber industry and their threat or potential contribution to biodiversity.

Environmental conflict pervades Tasmanian politics. The first green party in history emerged in Tasmania in 1972 during protests against a hydroelectric damming project that, ultimately, overflowed Lake Pedder. The struggle over forest management exhibits the dynamics of splits between environmental movements and industrial enterprise worldwide. Contending notions of environment—whether as a collection of resources for extraction, as wildlife refuge, or as a liability—often share an assumption of supremacy of humans over nature and, especially in post-colonial contexts, a denial of the interwovenness of human life, even more so marginalised human life, with the environment.² Rational approaches, affective stances, or ethical commitments mediate the recognition of this supremacy, the blind spots it produces, and whether and how individuals or groups take action on behalf of the ecology that

sustains them. Because grasping the environmental situation in all its dimensions is impossible from a purely human political perspective, collectivities act based on partial views. Euro-centred paradigms allow individuals to oscillate between believing they can solve ecological problems by controlling nature and apathy in the face of a crisis the scale of which is impossible to grasp with the available analytical tools.³ Notions of the Anthropocene root the origin of the epoch in the first traces of human industry found in the geological record. But decolonial, feminist, and Marxist thinkers question both the boundaries and the defining features of this age, in some cases proposing alternative ones including the Capitalocene, centred on economically-driven environmental transformations; notions that incorporate human extraction to other forms of resource extraction in light of colonialism and the slave trade; and the Chthulucene, an epoch of interspecies adaptation and transformation toward building a sustainable, shared life. As Donna Haraway, describes it, the Chthulucene 'must collect up the trash of the Anthropocene, the exterminism of the Capitalocene, and chipping and shredding and layering like a mad gardener, make a much hotter compost pile for still possible pasts, presents, and futures.'⁴

Over lunch, Martin recounts his observations over years of working in the forest. He tells us of the many times he has encountered evidence of fuel reduction by Palawa inhabitants pre-dating the colonisation of Australia, including patch burning, clear cutting, and the construction of fire barriers. It appears that the practice of forest management has always accompanied human settlement in Tasmania, a hypothesis Martin deploys against the argument that taking a hand to nature is unique to Western civilisation. Martin also tells us about his plan to organise an exhibition that will bring together Aboriginal and Torres Strait Islander cultures with soil scientists. His E[art]h project, developed in collaboration with Richard Doyle, another soil scientist based at the University of Tasmania, aims to create a meeting space for scientific, indigenous, and artistic cultures engaged with or using soil as their primary material.

Bruno's recent work centres on soil science, and he and Martin discuss the challenges of soil remediation while Camila and I decide to take a brief hike up the mountain. A few steps beyond the shelter, we find a steep trail parallel to the brook we've been hearing pour down the cliff side. As we climb, the view of the city, which has insisted on our attention all this time, is at our backs for the first time. The path is rough with plants I have never seen before, and I marvel at the new shapes and colours, at the unfamiliar smells. When, trying to catch my breath, I lean against the mountain for balance, I feel its staunch solidity. Standing alone, beyond the reach of the conversation that has carried us through the day, I wonder about the Palawa and what more-than-historical presence may linger here beyond the archaeological evidence of their forest-management techniques. Their population was decimated by the violence and disease of British colonisers. Raphael Lemkin, the Jewish Polish lawyer who coined the term genocide and brought the Genocide Convention to recognition in the United Nations in 1948, included the British decimation of the Palawa as one the cases that defined genocide as intentional action to massacre a group of people.⁵ The term draws a stark line between present and past, especially in post-colonial settings where genocide as part and parcel of a colonising mission may be perceived as a *fait accompli*. This makes it possible to deny the ongoing violence triggered by colo-

nial genocide, even after the end of colonial rule, and opens the way for the descendants of perpetrators to experience remorse with less weight of responsibility to existing communities of survivors. As such, genocide may be processed in isolation from previous generations—with only a remote relation to victims and perpetrators, if any at all.⁶ In this case, dominant communities view the descendants of the victims of genocide as lacking a common ground with a nation-state built on a history of genocide and the denial of these very survivors. The continuing legitimacy of the nation-state relies on an abstraction of its foundation myth, one that denies the existence of historical continuity between genocide and the present.⁷

Still leaning against the mountain, I wonder how Martin's view holds up without the knowledge of the social and cultural context in which the forest practices that left those traces he observed were carried out. Is this culling of practical knowledge from the past through archaeological evidence not another form of extraction, the resource being, in this case, a practice that is framed, in the present, as forest management expertise? One can wrest knowledge from an unknown past only by assuming the parts lose nothing in their separation from their historical context. This selective drawing on pieces of the past to inform our presents and futures unsettles me as I lean against the side of the mountain and again now, as I write. Memory is itself a form of extraction through a filter I seldom perceive. What would that filter, were I to perceive it, tell about what I register and don't register? How would that filter reflect my relationships to the world and the ways in which I wield my privilege or lack thereof, depending on context and circumstance?

Greg Lehman, an art historian and Aboriginal activist whom we are to meet the next day, writes about forest management from a different perspective: "Images of Aborigines as an "unchanging people in an unchanging environment" fail to adequately acknowledge the changes in climate that have occurred during the period of human occupation of Tasmania and their influence on cultural change."⁸ He cites the dynamism and innovation of Aboriginal fire management to enhance species diversity and to influence ecological succession in favour of a communal livelihood, reminding us that "the relationship between culture and vegetation was dynamic and interactive."⁹ This perspective poses a challenge to the peculiar mix of entrepreneurship and environmentalism that underlies industry-driven calls for fuel reduction in Tasmania. These refer to production and profit as much as to conservation of the forest, set in a modernist framework where nature and culture remain separate, and where the environment is to be controlled, modified, and reined in. In an evidence-based, scientific vision of the ecological future, the apocalyptic outlook is not far-fetched. On the other hand, conservationist anthropological views advocate for the protection, saving, or revival of Aboriginal culture. The two together bring a partial history to bear on the contemporary ecological crisis, reifying culture and enshrining authenticity in ways that fail to transcend colonial forms of relating to subjugated, native populations.

As we wind down the road back to Hobart, Martin indicates the path of the fire he expects will one day blaze down from Wellington's wooded heights. He points to his neighbourhood on the lap of the mountain, bound to be one of the first to be engulfed. As I listen to him detail his family's evacuation plan, the sense of a more-than-human, more-than-historical world I felt on the hike overwhelms me.

Hobart,
evening of June 30 2016

In his talk at the Tasmanian School of the Arts, Bruno elaborates on ideas to be published in a forthcoming book on the climate crisis.¹⁰ Bruno's focus on the critical zone—the thin skin that covers our planet and sustains life as we know it—offers an alternative both to the exteriority of the global view and to the solipsism of a localism delimited by political boundaries. Lovelock's Gaia is perhaps the closest model to the network of interrelations that comprise the critical zone Bruno describes.¹¹ This lateral view of life on earth offers an alternative to the endlessly transited scale from local to global and back. Bruno draws a line that veers off this continuum between *terroir*, or the grounding for nationalist sentiment, and the illusion and unattainable promise of globalism. This opens the way for the recognition of more-than-human relations, a central element of Australian and so many other indigenous cultures and traditions. In this perspective, we are not merely *on* the earth but *in* it, integral yet not essential to the critical zone we inhabit. We ply the thin layer of the critical zone and interweave in ways that could sustain or destroy us. Bruno outlines how the current climate regime is a result of this dynamic: our production, reproduction, and consumption in the critical zone—our dysfunctional relation to other beings and entities of the critical zone. Our transformation of the zone itself—its air, soil, and water—leaves the indelible trace that defines the Anthropocene.

My tendency is to question the centrality of humans in the notion of Anthropocene. Its definition seems barely to transcend the human-centred, modernist framework in which it is forged. I am in part drawn to Bruno's work because of his relentless intent to break down the modernist paradigm. He returns again and again to our incapacity to see the processes and mechanisms underlying representations of reality produced by scientific tools. Those tools, as well as the institutions required to forge them, are constructed by us and used to extract knowledge which, having been expressed, renders the tools invisible. Once extracted, the facts are called upon to stand for themselves as truths, inde-

pendent of the processes that forged them. We take away the structure that holds up knowledge and use this processed data to inform our work and our lives, individual and collective, while remaining objective (adhering to apolitical standards) as scientists. But like children who return to the beach to find their sandcastle devoured by the tide, we return again and again to debates with climate sceptics, reproducing a standoff between science and politics that hinders the transformations necessary to ensure our survival in the critical zone. For Bruno, the climate regime is a Hobbesian nightmare, one we can only leave behind by forging of a new social contract that recognises the link between nature and culture. The new sovereign will be this Gaia-esque critical zone: not just an aggregate of constituents, but a network of human and more-than-human relations essential to survival. Perhaps this represents, finally, Haraway's Chthulucene, a place where *khthôn* (from chthonic ones, beings of the earth) and *kainos* (the now, the ongoing present that continually combines past and future) come together in a dynamic of 'living-with and dying-with each other.'¹²

Museum of Old and New Art,
July 1 2016

The next morning, we let ourselves be carried by catamaran into the narrowing Derwent estuary, to the outcropping of land that holds the Museum of Old and New Art. Built on David Walsh's amassed fortune as a professional gambler, the museum is designed to facilitate popular access to art. The galleries include works by Anselm Kiefer, James Turrell, and Marina Abramović, as well as an ancient Egyptian mummy and several Neolithic artefacts. Walsh's philosophy rejects elitist boundaries, advocating for engagement with art as integral to human life and activity.¹³ Visitors carry around a device called 'the O', which allows them to rate the art displayed, as well as to read and listen to information, interviews, and other commentary from Walsh, the artists, and critics. The MONA collection is curated by a professional staff closely supervised by Walsh. Kirsha Kaechele, who is married to Walsh, coordinates community initiatives such as the River Derwent Heavy Metals Project. As one of the highest



Cameron Robbins, *Wind Section 4-16/04/2014 (Seismic and Two Butterflies)* (detail), 2014, weather-powered drawing machine installation; materials include painted wood, stainless steel, aluminium, ball bearings, shock cord, wire, paper, ink. Courtesy Fluoro Digital.¹⁵



Julius Popp, *bit.fall*, 2006–07, computer, electronic devices, pump, 320 magnetic valves, stainless steel basin and water, edition 2/4, 800 × 350 cm. Photograph: Paul Large.¹⁶

mercury polluted rivers on the planet, the Derwent, which runs through Hobart, poses an insurmountable challenge to restoration efforts. The artists and scientists in the Heavy Metals network collaborate to create responses to this contamination.

We arrive early enough to walk around the museum before our meeting with the Heavy Metals people. Perhaps because Bruno's presentation from last night is still on my mind, I am especially drawn to works that use scientific tools to convey what is invisible to the senses. Cameron Robbins, for example, captures the movement of the wind with machines that translate wind energy into ink drawings. An account of the wind drawing machines he built describes them as musical instruments:

More like clarinets and pianos than compasses or setsquares, they must be maintained, practiced, and performed to produce work that communicates.

The machines respond to wind speed and wind direction, and allow rain and sun to also play on the drawings. The principle employed here is that the wind direction orients a swivelling drawing board connected to a wind vane, while the wind speed drives a pen on a wire arm around in a cyclical motion.¹⁴

The wind drawings border on decipherable, like almost legible handwriting on patterns made by spiropaths.

In Julius Popp's *bit.fall* (2006–07), words drawn from internet news cascade over a raw wood wall in coordinated droplets of water, each drop a 'bit' of a letter. The speed at which the water words drop almost outpaces our capacity to read them.

In this case, the decoder is not an external machine but ourselves, and we encounter the limits of our memory and interpretive ability as the words fall away from comprehension. The work points to the ungraspable flow of information we have produced through technology that outpaces our minds. The piece seems to me an apt encapsulation of the crisis of modernity. According to Bruno, we are not modern, have never been so. The sophistication and understanding we attribute to ourselves relies on distinctions and specialisations resulting from the division of labour. Instead of illuminating the whole, these divisions ensure a semblance of social order and perpetuate institutions that sustain imaginary boundaries while obscuring the imbrication of cultural, scientific, political, and natural realms. We moderns cling to the notion that our particular form of sociality sets boundaries between us and other life-forms and objects.¹⁷ The institutions we build to produce a constructed order and sustain systems of domination reify those boundaries, even when our experiences of reality challenge them. As such, we are imprisoned behind the grids we have created.

The artworks that called my attention at MONA employ scientific tools to render visible the invisible, or to reveal the illegibility of the legible. They play at the limits of perception, reinforcing Bruno's perspective that if we have any sense of a whole, it is produced by technology, like the image of the globe from space. Yet, the representations of reality produced by scientific tools and theoretical constructs sometimes open the way to innovation. Such representations—say of a virus by a microscope, or the geography of a city by GIS technology—open the way for scientists and other agents to transform the world. How does art fit into this dynamic? In the works I saw at MONA, art practice takes a scientific approach to produce innovative representations which remain, for the most part, in the art world. Art and science meet in transdisciplinary spaces of collaboration such as *Ensayos* or the *Heavy Metals* project, which is why we have come here in the first place.

Which brings me to the conference room where we are to meet the members of the *Heavy Metals* project. We mingle for a few minutes until Kirsha Kaechele calls the meeting to order. First, Camila and I give a brief talk about our work with *Ensayos*, then Kirsha launches into an account of her youthful exploits and misadventures while traveling in southern Argentina. It is hard to tell how this will lead to a discussion with the *Heavy Metals* folk, whose ideas and projects we are avid to hear. But the meeting continues rather informally until David Walsh walks in with the baby, Sunday, and deposits her in Kirsha's arms. He leaves with a curt wave, and Kirsha pulls one breast out of her haute couture dress and plugs it into the baby's mouth. This, to me, seems a brave and laudable action to take in a conference room, albeit one requiring a certain level of privilege. The artworld, its patronage networks and hierarchies, is contained in this simple gesture which blurs the boundary of private and public space and sets empowered motherhood centre stage before a captive audience of artists and academics here to seek financial support and the dissemination of their work. As Sunday nurses, Kirsha changes the subject to the mercury mausoleum in which she plans to bury her husband.

Finally! Mercury! The scientists and artists around the table liven up and begin to speak. They

explain that the mausoleum is made of ‘bioremediator’ oysters that died while absorbing mercury from the river. The conversation lingers on one of the projects the group carried out, an installation inside a van that took urine samples of Hobart residents to evaluate the impact of the river on public health. For the future, they plan to build a heavy metals lab on a pier next to the museum, which would stretch into the Derwent. As I listen, I realise that what we are witnessing here is the counter-direction of the relationship between art and science I witnessed in the halls of the museum. Whereas in the galleries science extended the possibilities of art by producing innovative representations, in this space, art unconventionally yet effectively extends the possibilities of science, both by opening new venues for exploration, and by harnessing the power of art patrons such as David Walsh and Kirsha Kaechele. Facing the conundrum of rendering the mercury dump site on which the museum sits safe for some forms of human use, the Heavy Metals scientists are open to the perspectives of artists who keep asking ‘why not?’¹⁸ One member of the Heavy Metals group explains, ‘We are resetting relations through an attempt at remediation’, and I understand how, in their work, just like in ours, process, not outcome, is the focus. Learning to cohabitate with heavy metals, the scientists explain, involves trial and error, a trajectory whose endpoint, if one exists, is elusive. Our discussion of mercury traces the thin line between life and death. How much mercury can a child or an adult consume and still survive? How much will organs absorb and incorporate while continuing to function? In different ways, the artists seem to be saying, ‘Let it reveal itself when the time comes, don’t force it.’

Lucy Bleach, who met us at the airport and is hosting us at the School of the Arts, is one of the artists present. She explains how her art engages the very geologic slowness our minds struggle to grasp. As I listen to her, time, which had been flowing swiftly for me all day, slows to walking pace. Lucy’s sculptures transform almost unperceived—for example, in *Superslow* (2015), an enormous ice block inside a structure reminiscent of a nineteenth century ice house gives way, over the course of weeks, to a circular plot of grass; in *Underground* (2015), inner tubes inside a concrete wall expand as they receive seismic data registering local and global vibrations, gradually destroying the wall.¹⁹ I am not surprised to see that she invokes Édouard Glissant in relation to her work. His writing taught me the notion of trembling thinking, which, as he writes,

erupts everywhere, with the music and the forms suggested by the people. It saves us from thinking in systems and systems of thoughts. It does not assume fear or that which is unresolved. It extends infinitely like a countless bird, its wings sown with the black salt of the earth.²⁰

Immersed in Lucy’s geologic time, I envision the evolution of the river Derwent and its possible futures. I feel a tremor and once again the unsettling of my sense of self as my projections come unstuck from linear time. I recognise the temporal scope of the damage we humans have done, but the tremor also unsettles pre-set ideas. It weakens false roots, reveals arbitrary boundaries, and facilitates their crossing—the tracing of new geographies. This critical zone, this earth that, as Bruno insists, can be defined neither by nationalist dogma nor utopian globalism, is a place of trembling where only the openness to interrelation might lead to complex,

sustainable systems of cohabitation. Haraway calls this effort to build community through relations of care and empathy among living beings ‘making kin’.²¹ The path that trembling opens up calls on me to recognise kinship beyond members of my species: to the soil, to the animals I use or consume, or whose companionship I seek, to insects, and to the water, pure and impure, which keeps me alive.

Hobart to Kettering to Bruny,
July 1–2 2016

By the time we leave MONA, I am already headed to Bruny Island in my mind. The drawings the wind made have left an impression, but more than anything they draw me outside to experience the wind without mediation. I feel relief when we leave the museum, and as we take distance on our drive to Kettering. There we will catch the ferry to Bruny in time to watch the sunset.

And now I arrive at a fragment of memory where I would rather just be present as I was present in Pete Hay’s pick-up truck, his little white dog resting between us as we hurtle down the route to his cottage on the island. The memory first presents itself as sensory, unmediated by language—I remember the darkness, and keeping my eyes peeled for wallabies along the side of the road. But as the visual sense settles, bits and pieces of our conversation return to me.

Pete Hay is a poet and geographer. He has published books on environmental theory and history, has written on islands and islanders, and on the psychology of archipelagic living. His poetry immerses the reader in the Tasmanian landscape with a gaze that enters into relation with plants and animals—the echidna, a flower floating in with the tide—and bridges distances between human perception and something as infinitesimal as the light released with the death of a leaf cell. Like Lucy’s work, Pete’s poetry engages with a speculative spatiality and temporality. His essay, ‘The Breath of Vast Time’, combines his perspectives as poet and geographer. He writes that

[t]he past has always held more fascination for me than the future. The future reeks with dire portent. The past, at least, is inscribed with our evolutionary success, we who are *specifically* still here, all we swimmers, fliers, crawlers, wrigglers, striders, lopers and scurriers.²²

As I remember it now, the first few kilometres riding in Pete’s truck were quiet. I feel again the trepidation and the discomfort that always comes with my shyness. My mind ruminates over the environmental conflict that Martin laid out for us the day before. I want to engage Pete in this polemic, and so ask: What role does burning play in the conservation of the forest? Or is the primary concern preserving human settlements? I ask him about the role of the Green Party in all this.

Pete takes his time to respond. While the conversation with Martin drew on the distant past as a source of knowledge to orient the future, Pete offers a response that builds on more recent history. He is unwilling to settle on one side or the other of the debate between industry and environmentalists. Forest management, conservation, and the timber economy need not exclude one another. ‘What is the local concern? The history of the place and the community’s relationship to the forest?’ Pete asks. And it makes sense, the work of a geographer begins with place, not just conceptualised as space, but as a hub of relations.

Slowly, Pete moves from a historical explanation into evocations of the future Martin dreads. His words reflect another section of his essay on ‘The Breath of Vast Time’, where he changes his tack on the future: ‘I have gone too far. Who could not find the unpredictable mystery of the future as fascinating as the riddle-me incomprehensibility of the past? So I’ll recast my position thus: the seamless transition of past into future is the most pressing responsibility of the body politic.’²³ This call to ensure the continuity of time through social, climatic, biological transformation, must build on historical knowledge. ‘[T]o have a point of moral vantage that even makes such determinations possible,’ he writes, ‘we need the inheritance of the past.’²⁴ I wonder about the difference between this kind of historical sensibility and the archaeological evidence that Martin would apply to forest management. The silences lengthen between us as we continue south, and in that space, perhaps the first quiet of our time in Tasmania, I start to understand that this land does not mean the same to Pete as it does to Martin, and that this relates to their different senses of time in space: a notion of time as continuous for Pete versus a compartmentalisation of past, present, and future for Martin. In an archipelagic sense, it might be that Pete travels over water, while Martin skips from island to island.

I feel the pull of the road, to keep following the route to where the sidewalk ends, then to ponder crossing the water and the next landing on *terra firma*. What new translations will it call forth? And I feel the trembling of a boat drifting on water—water that connects the fragments of reality I perceive. My eyes adjust to the dark as I turn over the boundary between past and future, life and death, artifice and invention, then leave them behind to be simply present in this moment, barrelling down the spine of Bruny Island.

‘Do we bring life or death with us where we go?’ Camila posed this question to Bruno and me before we took the plane from Melbourne to Hobart, and her question has threaded through the past two days. For tonight, we stop at Pete’s cottage, and spend the night there with Lucy, Camila, and Greg Lehman, descendant of the Trauwulwuy people, art historian, and Aboriginal activist. As the fire in the wood stove begins to warm up the cottage, we search for words to address Camila’s question but wind up drawing the objects around us into the conversation: a bottle of wine Greg brought, Pete’s cap, from the same region of France where Bruno grew up. We define ourselves to each other via these artefacts, alternating between the identities we aspire to and the rejection of identities imposed on us. We seek stable ground, and yet the very air calls on us to stay in the trembling place, to remain open to new forms of identifying. Our intent is to collaborate, to transform one another, not to remain fixed.

The next morning, over breakfast, Greg reads from an essay he wrote some ten years ago:

[I]t has been death that has characterised the island we call Trowuna [...] Death for us is not the musket shot or the hangman’s hand. It is not the high powered rifle of the mass murderer. Death is part of the spirit of our existence: an event which moves us and changes us.²⁵

Bruny Island, he tells us, is *lunawanna-allonah*, the place of acknowledgement. Later, standing in the pale light of Tasmanian winter, Greg explains how the monuments the state erected to the Palawa have no meaning to descendants of the island’s original inhabitants, yet for him and his people every tree is

an ancestor. It's not in the blood, he says, though it was the tracing of bloodlines to a faded photograph of his great-grandmother that revealed his Aboriginal lineage. Inheritance manifests as a relationship to ancestors more-than-human, and to a land which brings together all life forms past and present. I remember Bruno's focus on the critical zone, and wonder how this historical/anthropological layer may integrate to the lateral relations he described in his lecture.

The story of Greg's Aboriginal identity, from his days as a schoolboy onward, is a story of coming up against colonial dogma, then avoiding the knee-jerk response to repression that reflects and replicates that dogma, almost like a mirror. Once he recognised the Aboriginal ancestry of his grandmother, Greg came to identify exclusively with the Trauwulwuy. As he explains in an interview, he was 'taking one strand of my identity, adopting it, and ignoring the rest.'²⁶ This in spite of his light skin, and the fact that his features primarily reflect his Irish, English, and German ancestry. '[W]hen people ask me, "Well then, why do you say you're Aboriginal?" I simply say that the line that makes sense to me, the line that explains why I was born in Tasmania, is the line that I can draw back to my Aboriginal ancestors.'²⁷ After all, he asks, why is it so difficult for people, both white and Aboriginal, to recognise that Aboriginal people may have as multilayered an ethnic identity as white Australians? If identity is relation, then it must shift continually, yet power, in its categorising obsession, does not admit this flux. When Greg openly embraced his Aboriginal identity at school, he was slapped by his teacher: 'Nothing to be proud of!' The face of colonialism is this dogma and intolerance, and the danger of resistance is falling into a symmetrical dogma. Following Glissant, it's in the mixing produced by colonialism that thinking begins to tremble such that identity cannot remain unitary or fixed. It trembles in its encounter with the other, and in the forging of relation, where impurity and newness prevail over essence. Yet for Greg, holding on to his Aboriginal identity is a rejection of erasure, a deliberate partiality against prevailing colonial attitudes.

After breakfast, we set out from Pete's cottage toward Adventure Bay, where we stop at Two Tree Point, a small cape that juts out into the ocean close to Resolution Creek. The place names secrete the odour of colonial hopes and fantasies cast on this land. The interpretive sign put in place by the Tasmania Parks and Wildlife Service reveals the origins of the names:

Known as 'Watering Place' on the charts of Captain Tobias Furneaux (*Adventure*, 1773), this waterway, from which early explorers replenished their supplies of fresh water, was later named Resolution River by Captain William Bligh during his visit on *Bounty* in 1788. Bligh had been Sailing Master on Cook's ship in 1777.

Accompanying Capt. Bligh on his next visit (*Providence*, 1972) was Lieutenant George Tobin, the expedition's Principal Artist. Of the seven paintings executed by Tobin in Adventure Bay, one depicted the area now known as Two Tree Point. It is thought that these trees depicted by Tobin (both of which are *Eucalyptus globulus*), are still standing today, making them at least 250 years of age.

A further painting of an Aboriginal bark shelter was also sited in the area, and Tobin's journal provides information on the diet of the indigenous inhabitants and their shelter construction. Aboriginal artefacts have been found in this area.



Bruno Latour on Bruny Island, Tasmania, 2016, video still. Courtesy of Denise Milstein.

Tobin's watercolour of Two Tree Point is reproduced on the sign. It shows the British ships arriving and, of course, the two trees standing sentry. The egocentrism of colonisation manifests in its tone-deaf optimism. Adventure, Resolution, Providence, Bounty: almost two and a half centuries have passed, yet the British names remain. Despite the fact that the crews had contact with the aboriginal inhabitants of the island, the sign reveals nothing more than Tobin's depiction of a bark shelter and a bare description of their diet.

Greg writes that the myth of Aboriginal extinction has been so important to the ruling whites of Tasmania that challenging it is 'felt [as] a personal affront [to them]'.²⁸ Standing at Two Tree Point I understand how, on this island full of unmarked graves, any monument would make a mockery of the genocide. Nothing could mean more than the land itself to those who recognise life as an interweaving of ancestors, human and more-than-human. In this consciousness, the critical zone calls forth something more than respect for the past. It demands a continuing of awareness, a trembling shift toward an alternative path barely discernible from the other side of colonisation. It calls on us to close our eyes long enough to lose our way of destruction. If only we could.

We stand by the two trees as Greg reads from Cook's account of his landing. It is 1777 and only the second time he and the crew of the *Resolution* have come upon Aboriginal inhabitants on this island. The encounter, as described, is a peaceful one. We look again at Tobin's watercolour, this time on the screen of Greg's laptop, and try to identify his precise vantage point on the landscape. From that angle, we have no doubt that these are the same two trees rising on the point. Greg sifts through other images until he finds a drawing by John Webber, who arrived with Captain Cook in 1777. This is the earliest European depiction available of the British encounter with native Tasmanians. Captain Cook stands at the centre, presenting a medal to one among a group of men. It appears that they are being treated as allies. The drawing's title is *An Interview between Captain Cook and the Natives*, and foreshadows the drawing and engraving Webber will make two years later, depicting Captain Cook's death at the hand of natives in Hawai'i. Greg notes how the faces of the Aboriginal men in the drawing are detailed but identical, likely reproduced from an earlier sketch. Here we see how the colonial encoun-

ter relies on a clear boundary between white settler and indigenous inhabitant. On one side of the line the figures are differentiated but less precisely drawn, it is assumed that the European onlooker would recognise individuality in minimal, subtle, strokes; on the other side, the faces and bodies are precisely drawn but uniform. The indigenous side admits no diversity. As we look at these images, we grasp the limitations of colonial imagination, its propensity to invention based on the perception of an 'other', the novelty of which prevents deeper knowledge of that other.²⁹ And what about us? What layers of experience, what imagined narratives, what identities do we bring to bear on this place?

As our small group disperses, I walk along the narrow beach that stretches south from Two Tree Point. Halfway down the beach, I settle on the uneven boundary between sand and trees to watch the water. Bruno steps across the sand before me, and I make a short film of it on my phone. As I watch it now—this effort to register our own landing, our own attempt at deciphering this place in all its times—I wonder where Bruno was in his mind at that moment. Present or elsewhere? Was that moment or its video rendition about the water in relation to Bruno, or Bruno in relation to the water, a registering of that long stretch of sand, or the feel of Tasmanian winter air? Was I trying to capture the particular light in Bruny, which that day produced sharper contrasts than I had seen before? Am I now watching those twenty-seven seconds of video while remembering, or projecting the moment forward as I write? Does it matter how I experienced it and with whom? Greg, Lucy, Camila, and Pete are not in the video, though I feel their presence in that moving image. But where were they in that moment? Each one losing and finding him or herself along the beach, or using it to travel elsewhere?

Travellers come and go, but strangers come and stay, remaining strangers all their lives. So Georg Simmel argues.³⁰ Perhaps trembling thinking makes strangers of us all, carrying the burden of alienness, but holding the privilege of remaining uncommitted to standard ways of thinking. In this place I am both traveller and stranger. Traveller because I will leave soon enough, but a stranger to the ways of thinking that surround me. I am neither teacher nor student, coloniser nor colonised. My gaze mystifies, brings another nostalgia to bear on this place, continually seeks comparison with something I have experienced before, yet delights in the alienness of the flo-

ra and fauna, sees newness in what, to locals, might be a banality. More than anything, I seek a way of understanding who I am in relation to this place, in this moment and its layering of memory.

Now, as I remember walking back to Two Tree Point over the beach, I think of the Slovenian poet, Jure Detela, whose work I had yet to read back then. Inspired by Ezra Pound, Detela committed much his writing to literality. The forest is only the forest in his poems; a leaf is a leaf; the moon, only the moon. In those poems, I see the desire I experienced on Bruny for those two trees at Two Tree point to only be two trees, ancestors perhaps, but not the two trees painted by Tobin, carried into history as part of a picture that only tells one side of the story, and therefore tells a lie. And yet they are the Two Tree trees. The old watercolour remains on the interpretive sign and, indefatigable, Captain Cook, or Furneaux, or Bligh land over and over again to extract resources from the island—wood, fresh water, in memory, in history, forever observed by an Aboriginal community all but erased in the historical record.

I touch the trees, wanting to dissolve the separation between my mind and these living beings. Then I round Two Tree Point to see the north side, where the others are waiting. Greg shows us an eroded section of the point along a short, steep cliff. It reveals that we stand on a midden made of *werre-na* shells and other detritus. Hundreds of years old, this human-made knoll, large enough to support the two trees, is evidence of Aboriginal presence on this beach long before the arrival of the British. We sit on the midden drawn by Webber and Tobin. It is solid and still enough to hold all of us and our trembling as we interweave past and present presence into relation. Later, we continue our journey south to the lighthouse at the tip of Bruny, but somehow I remain on that midden, both in my mind that day and in my writing now.

Hobart,
July 2–3 2016

We make our way back to Hobart that afternoon because David and Kirsha have invited us to join the opening celebration for an exhibition at MONA, *Hound in the Hunt*. The show is organised around the work of inventor Tim Jenison, who devised a way to replicate Vermeer paintings with optical aids. Pursuing his suspicion that Vermeer and his predecessors used technology to make their paintings, he created a simple device—a small mounted mirror set at an angle—to produce what he calls ‘handmade photographs’,³¹ or accurate representations of tableaux reconstructed on the basis of Vermeer paintings. Jenison uses his replicas to contend that artists of the Dutch Golden Age used optical aids to render their subjects. The party at MONA is to be a recreation of a seventeenth-century feast, and the invitation comes with a recommendation that we stop by MONA to choose historically appropriate costumes. The guests are expected to dress as nobility, but the title of the exhibition, *Hound in the Hunt*, grants us some latitude. Apparently, it is alright for us to dress as prey, and since we would all rather be wild non-humans than nobility, Lucy digs up a half dozen fur garments to lend us.

At MONA, we encounter a lavish display: brimming banquet tables featuring sumptuous flower arrangements and animals killed in the hours before the party by Walsh’s hired hunter. Silver-haired rabbits and pheasants still in their plumage lie among dishes painstakingly replicating the gastronomical customs of the period. People mill about in

broad collars, décolleté dresses, floppy hats, velvet robes, fitted doublets, lacy petticoats, billowing skirts, and puffed sleeves. On the tables, I see fur and feathers, the eyes of dead animals, blind to the human hands reaching for them as food. Here we are, celebrating the Dutch Golden Age, which saw the rise of the East India Company, a model for the multinational corporations that would follow and continue their paths of extraction, displacement, and colonisation. Abel Tasman, for whom the archipelago is named, was himself employed by the Dutch East India Company. He came to explore and trade 135 years before the British East India Company sent Captain Cook.

I graze my fingers along the fur of the vest Lucy lent me and imagine myself as prey. Then I reach back to a different seventeenth century, the time and place where Aboriginal life flourished, a world completely absent from the replica inside which I’m imprisoned at the moment. A woman dressed as the girl with the pearl earring rustles past me, setting me back in place. Of course, we are supposed to be in the Netherlands. How did I get here from Bruny Island? I sit at the banquet table and make small talk with the warm and welcoming artists and writers assigned to sit next to me. They remark on the extravagance of their benefactor and this party he has thrown. One of them tells me this museum is the crown jewel of Hobart. A couple of expatriates from the United States describe their lives in Tasmania. I try, but can hardly eat.

The morning after the party we are scheduled to participate in a workshop with Camila at the School of the Arts. She has assigned us to bring one object that relates to this question of life and death we have been mulling over since our arrival. Bruno is nowhere to be found and I set out to look for him in the vicinity of the school. Walking along the Hobart waterfront map-less, I realise I have no sense of the city layout. I lose my way in the circuit of streets, and keep coming upon the port, the docks, the farmer’s market, a small bridge over a canal, then another, the school of the arts, then back to the docks. In the confusion all this produces I start to feel like a character in one of Renee Gladman’s books. In a series of novellas set in Ravicka, an imaginary city, her characters try to work and subsist while grappling with a constantly shifting geography. In Ravicka, buildings move on their own, they appear and disappear. It may take days or just an instant to cross a bridge. Space and time get mixed up as the characters, both Ravickan and foreign, try to understand through science, philosophy, and poetry the mechanisms and relationships that account for shifting places and architectures. In Ravicka, the urban landscape no longer defines trajectory and relationships, but rather blurs and displaces them. Theoretical schemas and hierarchies break down, leaving only an unfamiliar, lateral view of the space. This is the kind of foreignness I experience while ambling lost through Hobart. First it reinforces my subjectivity (my identity, my memory, and every city I have walked, which I superimpose over this one), and then it unsettles my point of view, once I realise the object to be viewed objectively is not transforming independently but rather in relation to me. The relation transforms itself and everything around it simultaneously. I remain an entangled observer, ever the stranger and yet inextricable from the dynamic.

I don’t remember if I find Bruno on the street or if he is already at the workshop with Camila when I finally arrive, late and feeling defeated by the city. The attendees sit around a rectangular table—a couple dozen of them—each holding the object they

have brought to share with the others. My object is a necklace my son made for me: plastic, gold-flecked twine threaded through a shell, both found on a beach in Uruguay, where I was born and he was not, though he unquestionably identifies as Uruguayan. I have been wearing it throughout this trip to Australia, while he visits his father in Montevideo. I pass it around and handle the amulets and mementos of others. One woman brings a bag of walnuts. Each one represents the size of the hole a CT scan found in her heart. Lucy brings a piece of Darwin glass, an amalgam of earthly and extra-terrestrial materials produced by the impact of a meteorite. One man brings a leather belt made from his grandfather’s saddle, the same grandfather who was thrown off a horse to his death. We talk about dying away from where you are born, about writing letters to people gone, about burning letters, and about lost and found cameras that once captured scenes and lives unknown. The longing for times un-lived, the inevitability of death, memory in all its imperfection, and myth, all thread through our conversation.

Memorials are representations, and each one of these objects is a memorial of sorts. The objects are wrapped in their stories, which string them into relations. Had I found them on their own, strewn on a beach, they would come to embody different memories and imagined histories. As a watch, a photograph, a hand painted plate, maps of Martian landings from H.G. Wells’s *War of the Worlds* pass through my hands, I wonder, are we ourselves anything more than memorials, things, objects, artefacts? Are we anything beyond these representations of ourselves to others, and is this conversation anything other than invention? Remembering Pete’s essay, I wonder if this telling is our way of carrying the past into the future.

Maurice Halbwachs posits that memory is social and grounded in experience.³² Collective memory builds on relations forged through shared experience. If consciousness of the past informs the future, perhaps it is possible to re-configure a collective memory different from the one received, one that recognises relations beyond circles restricted by modern, or colonial, or anthropocentric imaginations. We form an archipelago too, this group of us passing our object-memorials from hand to hand, defining life and death on our doomed Anthropocene, or on the as yet unrecognised Chthulucene. If we shift from thinking of ourselves as islands in water to considering the possibility that we may be the water itself, everything becomes interconnected. This is our shared life in the critical zone. Perhaps we already lap at a shore together, one where we can crawl onto the land once again, without the intent of conquest this time. Perhaps this time we will manage to keep the lateral view instead of aspiring to shoot ourselves into space.

New York,
October 27 2018

Last night I saw Bruno give a performance-lecture at a theatre on 42nd Street. The event is the result of his collaboration with several artists to develop visualisations of a ‘Gaiagraphic’ as opposed to geographic view, one that allows us to view ourselves inside the critical zone, laterally instead of from the outside as in the projection of a globe, or a bird’s eye view of the land.³³ The images, projected onto a scrim and over the audience in front of Bruno, immerse us all in the critical zone, which Bruno compares loosely to Plato’s cave. In his view, the Anthropocene is a cave with no exit, but unlike Plato’s allegory, in this cave we are free to move, relate

to each other, seek to understand our surroundings and perhaps to transform them. Bruno appears in the background, fully visible yet inside. His words take me back to Pete's writing, so present in the landscape, to Greg's interweaving of life and death, to Lucy's insistence on slowness, and Camila's drive to open spaces for collective reflection and creation. All of us refuse to abide by the accelerating rhythm of a culture and science hitched to the priority of accumulation and linear evolution into an unsustainable future. I sit here in the stillness of writing, remembering travel, in that moment of the breath when inhale and exhale are indistinguishable. In this blurry, trembling space where memory and present interweave, I try to imagine a conscientious, sustainable future.

- 1 Sarah Whatmore adopts the term 'more-than-human', from David Abram, to describe a world of interrelationships with agentic beings, thereby decentring humans as the social, cultural, and political centre around which a 'non-human' environment might revolve. See Sarah Whatmore, *Hybrid Geographies: Natures, Cultures, Spaces* (London: SAGE, 2002).
- 2 Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018).
- 3 Donna Haraway, *Staying with the Trouble* (Durham: Duke University Press, 2016), 57.
- 4 Haraway, *Staying with the Trouble*, 57.
- 5 UN General Assembly, *Prevention and Punishment of the Crime of Genocide*, December 9 1948, A/RES/260.
- 6 Roland Imhoff, Michael Wohl, and Hans-Peter Erb, 'When the Past is Far from Dead: How Ongoing Consequences of Genocides Committed by the Ingroup Impact Collective Guilt', *Journal of Social Issues* 69 (2013): 74–91.
- 7 Ernest Renan, *Qu'est-ce qu'une nation? et autres écrits politiques*, (Paris: Imprimerie nationale, 1996).
- 8 Gregory Lehman, 'Turning Back the Clock: Fire, Biodiversity, and Indigenous Community Development in Tasmania', *Working on Country, Contemporary Indigenous Management of Australia's Lands and Coastal Regions*, eds Richard Baker, Jocelyn Davies, Elspeth Young (South Melbourne, Australia: Oxford UP, 2001), 314.
- 9 *ibid.*, 315.

- 10 Bruno Latour and Catherine Porter, *Facing Gaia: Eight Lectures on the New Climatic Regime* (Cambridge, United Kingdom: Polity Press, 2017).
- 11 James Lovelock, *The Ages of Gaia: A Biography of Our Living Earth* (New York: Bantam Books, 1990).
- 12 Haraway, *Staying with the Trouble*, 2.
- 13 'Introduction', Museum of Old and New Art, accessed March 24, 2019, <https://mona.net.au/museum/introduction>.
- 14 'Wind Drawings', Cameron Robbins, accessed March 24, 2019, <http://cameronrobbins.com/wind-drawings/>.
- 15 'Wind Section. Seismic and Two Butterflies', 2014, <http://www.fluorodigital.com/2016/07/cameron-robbins-field-lines-mona/>
- 16 Paul Large, *Fall*, December 30 2012. Museum of Old and New Art, Hobart, Tasmania. <https://www.flickr.com/photos/pm-large/8325558088/>.
- 17 Katherine Yusoff, *A Billion Black Anthropocenes*.
- 18 Andrew Stephens, 'MONA's Absorbing Marriage of Art and Science', *The Sydney Morning Herald*, January 18 2014, <https://www.smh.com.au/entertainment/art-and-design/monas-absorbing-marriage-of-art-and-science-20140117-310j8.html>
- 19 Kit Wise, 'Lucy Bleach: tectonic slowness', *Artlink* 36, no. 1 (March 1 2016), <https://www.artlink.com.au/articles/4440/lucy-bleach-tectonic-slowness/>.
- 20 Édouard Glissant, *La Cohée du Lamentin* (Paris: Gallimard, 2005), 12, author's translation.
- 21 Haraway, *Staying with the Trouble*.
- 22 Pete Hay, 'The Breath of Vast Time', *Cordite Poetry Review*, December 1 2013, <http://cordite.org.au/guncotton/the-breath-of-vast-time/>.
- 23 *ibid.*
- 24 *ibid.*
- 25 Gregory Lehman, 'Life's Quiet Companion', *Island* 69 (Summer 1996): 54–61.
- 26 Caroline Overington, 'Not so black & white', *The Australian Magazine*, March 24 2012.
- 27 *ibid.*
- 28 Lehman, 'Life's Quiet Companion'.
- 29 Laurence Simmons describes the complexity of this 'first encounter' drawing, the role of the artist and that of the 'trickster' interpreter in 'A first meeting place: John Webber's *An Interview Between Captain Cook and the Natives* (January 1777)', *Postcolonial Studies* 20, no. 4 (December 2017): 411–430.
- 30 Georg Simmel, 'The Stranger', *On Individuality and Social Forms* (Chicago: University of Chicago Press, 1971), 143–9.
- 31 Tim Jenison, 'Hound in the Hunt', *MONA*, 2 July 2016, <https://mona.net.au/museum/exhibitions/hound-in-the-hunt>
- 32 Maurice Halbwachs, *On Collective Memory* (Chicago: University of Chicago Press, 1992), 38.
- 33 Alexandra Arènes, Bruno Latour, and Jérôme Gaillardet, 'Giving Depth to the Surface: An Exercise in the Gaia-Graphy of Critical Zones', *The Anthropocene Review* 5, no. 2 (August 2018): 120–135.

Images of the Invisible

Catalina Valdés



Conrad Martens, *Portrait Cove, Beagle Channel, Tierra del Fuego*, 1834, watercolour with graphite on paper, 19.4 × 29.5 cm, National Maritime Museum, Greenwich, London.

Third Shore

To think of a 250-year-old eucalyptus (*Eucalyptus globulus*) is a challenge to someone who only knows this tree as an invader. This is why, Denise, I am grateful for the description of an image by George Tobin, who imagined it amongst trees such as *peumo* (*Cryptocarya alba*), *boldo* (*Peumus boldus*), *quillay* (*Quilaja saponaria*), *molle* (*Schinus molle*), *espino* (*Acacia*

caven), *keule* (*Gomortega keule*) and *pitao* (*Pitavia punctata*). These and other trees, as well as a great many associated species, gradually lost their habitats in order to give way to plantations of eucalyptus trees that, along with poplars (*Populus alba*) and pines (*Pinus radiata*), were implanted as monocultures in a large part of the regions of central and southern Chile.¹

The first eucalyptus seeds arrived from Oceania to the South American Cone due to the impulse of José Faustino Sarmiento, one of the main players in the region's modernisation process. The author of *Facundo o civilización y barbarie en las pampas argentinas*, a book that was first published in 1845 in the Santiago newspaper *El progreso*, Sarmiento was an influential intellectual and public administrator who reached Argentina's presidency in 1868. Throughout his entire career, the author irradiated principles of the nationalisation of nature and of history, building traditions that survive to this day, many of them in evident state of ruin (both the title of the book as well as of the magazine where he published it should form part of the Anthropocene's fundamental library).

Sarmiento observed the immense expanse of Rio de la Plata's *pampa* and in it saw a woman who was aging unmarried. The eucalyptus presented itself as a prince from the East who brought fertility to the plains at last (this both romantic and aggressive metaphor comes, in quite similar words, from Sarmiento himself). His campaign for the *pampa's* afforestation constitutes the initial gesture of a transformation that extended to immense expanses of land and did away with diverse biomes for the cultivation of this fast-growing and fast-adapting tree, which in terms of its exploitation, translates into a 'high yield species'. Today, with the support of public subsidies and weak environmental and commercial regulations, the forest industry has become the Chilean economy's second largest source of revenue after copper, based mainly on the exporting of pulp for paper.²

Tobin's watercolour, painted in 1777 during James Cook's expedition to Tasmania, brought another traveller's painting from a few years later to my remembrance.

It is also a watercolour painting of the extreme south, but in this case, of the American Pacific. Conrad Martens, the artist who accompanied Fitz Roy and Darwin on the *Beagle's* second expedition, painted it in 1834 during his visit to Tierra del Fuego. I don't know whether today it is possible to prove, as the Tasmania Park's signage did, if the trees Martens painted on the edges of the cove are still standing. In fact, it is also a possibility that these species, probably *lengas* (*Nothofagus pumilio*), were perhaps never there, and that rather, their presence in the image responds to the artist's compositional needs. In his diary, Martens recognises the difficulties he experienced in trying to represent Fuegian landscapes.³ Both the views from the coast as well as those he obtained from aboard the brigantine were presented to him as completely void of proportion or harmony. With immense extensions of plains and with no vegetation other than pastures and dark forests filled with dramatically shaped trees, forms that were sculpted by the wind; with a coastline that fails to reveal itself in a panoramic view, but rather, emerges and hides amongst coves and cliffs, the artist came across challenges in his pursuit of drawing.

While here [Port Desire], as there was but little to be done in the way of sketching, I used generally to take my gun and was fortunate enough one day to bring home an ostrich [...] It would be useless here to attempt a description of all the out of the way places, wild scenes, and still wilder inhabitants of Tierra del Fuego and Patagonia.

[...] I could not help purveying that we were forcing ourselves into a region which was in the course of preparation tho [sic] certainly not yet fitted for the abode of man.⁴

The scenes of ‘extreme wildness solitude’ that he came across in his path were dissonant to an artist who was trained in the tradition of picturesque landscapes, an aesthetic tradition that responded to the representation of a domesticated nature.⁵ The scale of geological forms, the rough climate, the forces of water: all of these composed, in the painter’s eyes, an inhospitable landscape that exceeded the order of what was representable. In the images and reflections written in his diary, as well as in Darwin and Fitz Roy’s travel logs, it is this same wild condition that determined the nature of Tierra del Fuego’s inhabitants. For all of these reasons, I believe that the watercolour that shows the canoe group disembarking at a small cove is an effort to domesticate the experience of this journey: the forest serves as a frame, the human bodies are scale reference, and the brigantine in the background as a breath of air ...

Going from sketches to watercolours, and from these to etchings, the operation of mounting, superimposing, adding and subtracting visual elements was a very common gesture within the production of travel illustrations that took place from towards the end of the seventeenth-century until the mid-nineteenth-century.⁶ Just as digital photographs are edited today, exploring artists selected frames and then increased, added, or eliminated fragments in order to compose an image that was legible to those *imperial eyes* that would come to read and regard the tales of journeys to faraway places, recognising in them a sense of belonging that did not seem to cease in its expansion.⁷ The frame of trees that allowed Martens to lend proportion and order to the immensity of Tierra del Fuego also worked as a balance point for the dark figures that are disembarking—threateningly or curiously?—looking straight at the painter and at us, the spectators.

Faced with the agonising image of Captain Cook, ‘or Furneaux, or Bligh landing over and over again’ on the coasts of Tasmania in order to relaunch the insatiable campaign for resource exploitation; faced with the equally agonising scene of a costume party at which you never managed to feel comfortable, I propose looking at this other image as an inverted mirror of sorts: the possibility of waiting for the Yagan indigenous people to disembark, of exploring a third shore. The Yagan have traditionally been canoe people; we may perhaps learn from them a way of being on land, circulating through

waters that border more than two coasts, like the archipelago-communities and channel-communities that you imagine at the end of your essay.

‘so that, with respect to human observation, this world has neither a beginning nor an end.’⁸
—James Hutton, 1785

I would like to take you some day, Lucy, to meet the girls and boys of a public school in the Los Volcanes area of Chillan. From the classroom’s windows, which are covered with coloured curtains, one can see the Nevados de Chillan chain of volcanoes, a gigantic igneous portion of the Southern Andes.⁹ I travelled there a few months ago to present my studies on visual representations of volcanoes, and I decided to approach the girls who have lived with this view for their entire lives in order to find out what it is they see. After telling them, just as you do in your photographs and writings, about the traces that time leaves on the earth, I asked them to draw a volcano. The coloured curtains were drawn because the sun in Chillan is growing more and more relentless. After about fifteen minutes, the children happily lifted their drawings. All of the pages, without exception, showed triangles with more or less acute angles, with more or less smoke. We opened the curtains to take a look at the nearby chain of volcanoes ... After a few seconds of recognition, we laughed at all of our drawings, which showed by contrast a geographic imagination delimited by geometry. How do we represent what we, from seeing so much, can no longer see?

To me, your photographs are precise answers to this question, which I have been thinking about for some time now. The succession of textures on the rock, just as Hutton saw them and just as you show them in the photograph of Haulage Unconformity in Queenstown, is the result of a vertical perspective that reverts the horizontal convention that is usually employed to represent a landscape. Widening our perception, which is determined by the horizon’s line, this swooping and deep perspective expresses a break away from the fiction of space-time continuity. Just as there are very few volcanoes that look like perfect cones, time isn’t inscribed in a timeline like the one we were taught in history class, but rather, as a superposition between different worlds.

This superposition is inscribed in the two other photographs, the photocopy of the obsidian rock and

the sequence of images of the Bleach Mountain eruption. The obsidian, like all rocks, is a message: each rock tells the story of an eruption and brings news from the depths of the Earth. As part of a system with several states of equilibrium, the obsidian modifies its shape as it travels through time, which means that each rock’s shape is the inscription of an instant of deep time. Exposing it to the almost obsolete technology of photocopy is a beautiful gesture that contrasts against temporal scales. The briefest is the flash of light that activates the dry ink. Then, the flash inscribes this rock in a portrait, in a mid-range time scale: the tradition of scientific illustration carried out through different drawing and printmaking techniques. This superposition of images is gradually decants in our visual memory, as do the countless fractions of rocks in the substrates drawn by John Clerck, the artist that used to accompany Hutton on his geological expeditions through Scotland.

The fourth image you propose is the one that moved me the most. It is a precise response for a paradox that is challenging to mediate. In it, I see a very clear expression of knowledge generated from experience; this being, perhaps, the only way of appreciating the dimensions of time without succumbing to anthropocentrism on one side, nor giving into vertigo, on the other.

I wish that your father’s arm, a warm alternative to a timeline, were touched by the rod of naturalist scientist whom this image belongs to. The man in question is Eduard F. Poeppig, the first European scientist who around 1828 managed to reach the summit of the volcano Antuco, located in Mapuche territory within Chile.

With this rod as an instrument, Poeppig established measurements that allowed him to identify the volcano’s height and the snowlines in this part of the Andes. His other instrument was drawing, through which he observed and registered rock formations in the young mountain range. You will observe that at a group of basaltic columns emerge at the walker’s feet, volcanic rocks that, just as obsidian rock, reach the earth’s surface coming from deeper times and strata, changing their state to a rhythm that is imperceptible to our eyes. As part of his concise equipment, the scientist also used his own body as an instrument. The human body’s scale allows one to dimension elevations and distances, imprinting a perception of the place in the drawing.



John Clerk of Eldin, *Frederick Street, Edinburgh (east side)*, 29.4 × 69 cm. Published in James Hutton’s *Theory of the Earth: The Lost Drawings*, ed. G. Y. Craig, with texts by G. Y. Craig, D. B. McIntyre, and W. D. Waterston (London: Scottish Academic Press in association with the Royal Society of Edinburgh and the Geological Society of London, 1978). Copyright Sir Robert Clerk, Penicuik. For information on John Clerk of Eldin, visit www.clerkofeldin.com.

An Archive for the Future: Seeing through Occupation

Macarena Gómez-Barris



El Volcán Antuco, a print by Johann Nepomuk Ott (1804–1860), based on a sketch by Eduard F. Poeppig (1797–1868). Published in *Reise in Chile, Peru auf dem Amazonen 1827–1832* (Leipzig: F. Fleischer, 1835–36) (2 vols; atlas with lithograph illustrations, 2 vols). Image: www.memoriachilena.cl.

Thus, the image assumes the condition of evidence, a testimony of a scientific experience that finds a guarantee of truth in this piece drawn outdoors. Its transformation into a print in a specialised context completes the method, bestowing it authority.¹⁰

But I also like it because it is a portrait of sorts, just like the photograph of your father. Both images register the experience of time in its multiple scales, geological in the era of diagrams and in drawn rocks, biological in your father's skin and in the explorer's body.

With this, she enriched the box of tools that allows us to analyze the visual, written, and material culture of the travelling scientists that navigated through America with a renewed thirst for discovery, following a foundational, civilising and developmental program. The analysis of this perspective is fundamental for post-colonial studies, a mentality that responds to the reflexivity of words and images, which allows one to understand them as an expression of geographical imagination. Other pillars in this field of references are, of course, the work of Edward Said regarding the exoticisation of the East on part of Central European writers and artists of the nineteenth century, Edward Said, *Orientalism* (New York: Pantheon Books, 1978), and, in the case of the United States, Albert Boime, *The Magisterial Gaze: Manifest Destiny and American Landscape Painting c. 1830–1865* (Washington, D.C. and London: Smithsonian Institution Press, 1991), amongst many others.

1 María Moreno-Chacón, Daniela Mardones, Nataly Viveros, Karina Madriaza, Fernando Carrasco-Urra, Alicia Marticorena, Carlos Baeza, Roberto Rodríguez and Alfredo Saldaña, 'Flora vascular de un remanente de bosque esclerófilo mediterráneo costero: Estación de Biología Terrestre de Hualpén, Región del Biobío, Chile', *Gayana: Botánica* 75, no. 1 (2018): 466–481, <https://dx.doi.org/10.4067/S0717-66432018000100466>

2 Sergio Donoso y René Reyes, 'La Industria de la celulosa en Chile, otra "anomalía de mercado"', *El Mostrador*, January 5 2016, <https://www.elmostrador.cl/noticias/opinion/2016/01/05/la-industria-de-la-celulosa-en-chile-otra-anomalia-de-mercado/>. See also the very recent effects of eucalyptus monoculture as a *pyrophyte species*, or one that has adapted to undergo great fires: Laura Pitt, 'Eucaliptos y pinos: los bosques artificiales que contribuyen a la expansión de los incendios en Chile', BBC News Online, January 27 2017, <https://www.bbc.com/mundo/noticias-38771376>.

3 To know more of Marten's work and his visit to southern America, see Marijke van Meurs Valderrama, *Conrad Martens en Chiloé, 1834* (Santiago: Ediciones Museo Regional de Ancud, 2014), and Marta Penhos, *Paisaje con figuras. La invención de Tierra del Fuego a bordo del Beagle (1826–1836)* (Buenos Aires: Ampersand, 2018). See also the blogpost, Rob Viens, 'The Art of the Beagle—Conrad Martens Part II', The Beagle Project (blog), December 7 2013, <https://beagleproject.wordpress.com/2013/12/17/the-art-of-the-beagle-conrad-martens-part-ii/>. It is very interesting to consider that this artist's journey led him to complete a life as a main painter of the British colony in Sydney. See, for example, Michael Organ, 'Conrad Martens & the Picturesque: Precursor to Australian Impressionism', University of Wollongong, 1993, available at https://www.academia.edu/2799058/Conrad_Martens_and_the_Picturesque_Precursor_to_Australian_Impressionism.

4 Conrad Martens, 'Journal of a Voyage From England to Australia Aboard HMS Beagle and HMS Hyacinth 1833–35', transcribed by Michael K. Organ, State Library of NSW, University of Wollongong, Sydney, 1994, 28–29; 32.

5 *ibid.*, 35.

6 This subject has been widely addressed by diverse investigators who have studied works of art by artists travelling in Latin America, addressing the multiplicity of media through which the images they produced circulated in different contexts. Another example for the case of Tierra del Fuego is the work of the aforementioned Marta Penhos. Another example is a book by Juan Ricardo Rey, Carolina Vanegas, Oscar Franklin, and Paula Jimena Matiz, *Noticias iluminadas. Arte e identidad en el siglo XIX* (Bogotá: Alcaldía Mayor de Bogotá, 2011).

7 Over twenty years ago, the essayist Mary Louise Pratt, a specialist in Hispano-American culture and literature, proposed the formula 'imperial eyes' in Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation* (London: Routledge, 1992).

8 James Huton, 'Abstract of a Dissertation read in the Royal Society of Edinburgh upon the Seventh of March, and Fourth of April MDCCCLXXXV, concerning the System of the Earth, its Duration and Stability. Scottish Academic Press, Edimburgo (facsimil 1987)', trans. Cándido Manuel García Cruz, *Enseñanza de las Ciencias de la Tierra* 12, no. 2 (2004): 156.

9 'Complejo Volcánico Nevados de Chillán', Servicio Nacional de Geología y Minería, accessed July 3 2019, <https://www.sernageomin.cl/complejo-volcanico-nevados-de-chillan/>

10 A doctor and natural scientist trained in Leipzig, Eduard F. Poeppig travelled through the American continent from 1822 to 1832, first visiting Cuba and Pennsylvania, then Chile, Peru and Brazil. Upon his return to Leipzig University, he began organising the natural science collection he brought from America, which led to the publication of an immense work dedicated to describing over fifteen-thousand botanical species. He also dedicated himself to publishing an account of his journey through South America. Somewhere between a diary and naturalist reports, Poeppig published the text in two volumes, and an atlas of illustration in another two. The illustrations feature lithographs drawn by the landscape painter trained in Munich, Johann Nepomuk Ott, who worked based on sketches drawn by the traveler himself. At the moment these volumes were published, the natural scientist and painter shared the experience of having known the Vesuvius, which without a doubt determined the way in which each one of them faced—on directly, and the other through drawing—the volcano located in the south of Chile.

In his thirty-two-minute independent film *Mencer: Ni Pewma* (2011), Mapuche filmmaker Francisco Huichaqueo draws attention to the current dystopic landscape of the southern territories in Chile.¹ This is a continuous nightmare that stretches back over five centuries, from the colonial endeavor to nation building through Pinochet's neoliberal experiment and into the current period of the ongoing invasion of pine and eucalyptus plantations; a nightmare that takes place within the extractive zone of the Bío Bío region. In Mapudungun, the term *ni pewma* translates as 'a bad dream', and one interpretation of Huichaqueo's use of the term in the film's title is that the Spanish colonial nightmare persists in the hands of the Chilean state. *Mencer*, on the other hand, is a word that 'came to him in a dream' (and a term that we could not find a definition for), thereby adding to the nonlinear and experimental dimensions of its effect.

Unconcerned that his film has screened only once in public, Huichaqueo has deliberately created an archive 'that will illuminate to Mapuche peoples living in the future the terrible conditions that we live through now.'² The exceptional quality of the film's work, then, is to document the persistence of the colonial dystopic through experimental means: in the past three decades, Mapuche lands have been reduced to 510,000 hectares, or just 6.4 per cent of their original territorial holdings.

As Huichaqueo says about his film, 'I use the symbolic language of our ancestors to help us shape, live, and act in the world as if occupation did not ravage all of our existence.'³ Like the genre of Indigenous video art that has proliferated in the hemisphere, and the work of Native visual media more globally, *Mencer: Ni Pewma* documents the struggle for Indigenous life as an ongoing conflict between two fundamentally distinct epistemes.⁴ In this chapter, I take the opportunity of this little-known work to disentangle the layers of complexity within the extractive zone, analyzing the symbolic, representational, material, spatial, temporal, and epistemological dimensions of the permanent war against Indigenous peoples and their territories in the Southern hemisphere.

Since the sixteenth century the colonial occupation of the original territories known as Wallmapu that span the Andes from Southern Chile to Argentina is a permanent war against Indigenous populations. This war advances on material and representational fronts, ranging from genocidal atrocities, such as those that took place during the failed Spanish conquest of the region, to the expropriation during the '*Reducciones*' and enclosure period of the 1800s, to the neoliberal privatisation of Indigenous territories from 1973 forward, to the multicultural state's project of incorporation and expulsion during the 1990s.

A financialised view that sees land as transparent exchange value is distinctly opposite from Huichaqueo's viewpoint, whose opening scene is an opaque landscape with blurry boundaries between land, sky and trees, offering a mode of perceiving

Searching for Slime Moulds in Northern Tasmania

Sarah Lloyd



Lycogala epidendrum

‘Slime-moulds may occur on objects of any and every sort. Their minuteness retires them from ordinary ken; but such is the extreme beauty of their microscopic structure, such the exceeding interest of their life history, that for many years enthusiastic students have found the group one of peculiar fascination, in some respects, at least, the most interesting and remarkable that falls beneath our lenses.’

—Macbride 1899¹

Introduction

I remember finding my first *Stemonitis*. It was 2001 and I was surveying bush birds in remnant vegetation on King Island (a small island half way between Tasmania and the Australian mainland) when I noticed some fluffy brown tufts on a log. Someone told me it was a slime mould, but it was nothing like the more conspicuous and familiar species *Fuligo septica* and *Lycogala epidendrum* that I had learnt about through my interest in fungi.

In 2010 I started to search regularly for myxomycetes (also known as plasmodial or acellular slime moulds) in the forest around my home at Black Sugarloaf, Birrallee, in central north Tasmania. I was immediately captivated by their miniature forms: some are ‘petaloid’ like tiny flowers; some are made of delicate porcelain; others display eye-catching iridescence. In that first year, I photographed, but did not collect, several ‘common’ species including *Elaeomyxa cerifera*, *Physarum viride*, *Trichia verrucosa*, *Lycogala epidendrum*, *Badhamia utricularis*, one resembling the tropical *Alwisia* (formerly *Tubifera*) *bombarda* (now *A. lloydiae*), and *Lamproderma ‘umbilicatum’*, an undescribed species. It only took a year to appreciate their unpredictability: the ‘common’ species were not common the following year and most have not

reappeared on the log or stump where they were first observed. Once I realised this, I started to collect their spore-bearing fruiting bodies, most of which rarely exceed two millimetres high.

It soon became clear that my situation is exceptional and that living in the middle of a forest with tall eucalypts, a diverse understorey, ferny gullies, and copious amounts of ground litter is ideal for the study of unpredictable, ephemeral, moisture-loving organisms. During regular walks through the forest I can search for fruiting bodies or plasmodia that have emerged overnight or in the early morning. Many of the fruiting bodies are brightly coloured in their early stage so they are relatively visible when they first appear. I can mark their location and monitor their progress as they mature and become less conspicuous. And I can collect fruiting bodies in good condition, that is, before they are spoiled by rain, invertebrates, or fungi.

By August 2013 I had the equipment necessary for identifying slime moulds: a compound microscope with oil immersion lens, field guides from Germany, France, The Netherlands, USA, and New Zealand (there are no field guides for Australia) and more cameras. I made a colour plate for each species with date; descriptions of habitat, substrate, and fruiting bodies; notes; references; and photographs taken with cameras mounted on stereo and compound microscopes. By 2018 I had amassed over 1,700 collections representing more than 120 species, an extraordinary number considering that they were all collected from within one kilometre of my home and that in 1995 only 42 species had been officially recorded from Tasmania.

Seven years of observation at the same location every day has given me an inkling of their ecology, a little-known aspect of slime moulds in Tasmania. For instance, some species are prevalent one year and rarely seen or absent the next; and it is not un-

sual to find a concentration of different species on a stump or small section of log, while similar logs nearby have no fruiting bodies, and these forest ‘hotspots’ change from year to year. The observation that several species belonging to the same genus appear simultaneously is another interesting aspect of their behaviour. And the fact that some species never appear on the same log or stump where they were first observed may indicate a longer cycle than seven years of observation; only time will tell.

Seven years of observation has also given me an insight into their seasonality. Different species or genera favour different seasons: litter-dwelling *Diderma* and *Didymium* species peak in April, May and June; *Trichia* species appear in August, September and October; and *Paradiachea caespitosa* and the species with large rounded fruiting bodies called aethalia such as *Fuligo septica*, *Reticularia splendens*, and *Tubifera dudkae* appear in the warmer months (i.e., December to February), as long as there has been some rain.

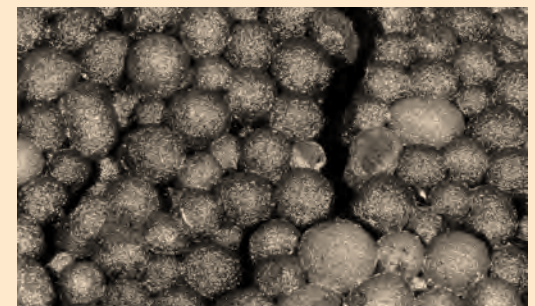
My study site encompasses several different vegetation communities, the most productive being the tall wet eucalypt forest on a shaded south-facing hillside with ephemeral creeks and soaks. It has plant species—especially stringybark (*Eucalyptus obliqua*), blanketleaf (*Bedfordia salicina*) and native clematis (*Clematis aristata*)—whose deeply fissured absorbent bark is particularly favoured by slime moulds; and it is surrounded by an extensive area of native forest. Furthermore, although the trees are not deciduous, the eucalypts and dogwoods drop copious quantities of leaves during summer, and the eucalypts are constantly shedding bark and limbs and so are continually adding to the leaf litter and coarse woody debris on the forest floor where numerous species are active and form fruiting bodies.



Trichia verrucosa



Badhamia utricularis



Paradiachea caespitosa



Plasmodium

Slime Moulds—What Are They?

Slime moulds have mystified scientists and naturalists for centuries. In 1753 when Swedish botanist, physician, and zoologist Carl Linneus was devising his binomial system of classification, he decided there should be two kingdoms—plant and animal. At the time fungi were thought to be plants and myxomycetes were thought to be fungi so they were placed in the plant kingdom. With the invention of the microscope it was clear that fungi are very different from plants, the fungi kingdom was added and myxomycetes were included. When their moving feeding plasmodial stage was observed, myxomycetes were moved to the animal kingdom and were moved yet again to the kingdom protista when their single-cell amoeboid stage was discovered.

There is now general agreement that myxomycetes are Amoebozoans, but whether Amoebozoan is a kingdom or supergroup is a matter of taxonomic debate. In 1833 German botanist and naturalist Johann Heinrich Freidrich Link, who was the first to perceive them as a distinct group, created the name ‘Myxomycetes’ (Greek *myxo* slime; *myketes* fungi). This is an unfortunate name because it implies a relationship with fungi, and it gives no indication of their beauty.

Life Cycle

It is not only the sporadic and unpredictable appearance of slime moulds that makes them fascinating to study, but also the fact that for a part of their life cycle they are invisible.

Their visible, but usually very small fruiting bodies, produce spores from which emerge amoebae, single-celled organisms that feed on bacteria in the soil. The amoebae have one of two different forms, depending on conditions: the swarm cells occur where there is water, with their two thread-like structures used for swimming and feeding, and the myxamoebae occur when conditions are drier. Swarm cells can convert to myxamoebae when conditions dry out, and vice versa. Myxamoebae can change to dormant structures called microcysts if growing and feeding is not possible, either because of lack of food, overcrowding, accumulation of toxic metabolic by-products, drought, excessive water, or temperature fluctuations. Microcysts are very robust and can quickly resume feeding when favourable conditions return.

Eventually compatible amoebae mate and the resulting zygote (fertilized ovum) feeds and grows until it ultimately produces the second feeding stage of a slime mould, the sometimes-visible plasmodium. Plasmodia are intriguing structures that have multiple nuclei—sometimes numbering in the millions—but no cell walls. Like the myxamoebae, they are able to change to dormant structures when conditions are unfavourable, or for overwintering in temperate climates. Fruiting bodies form from all or part of the plasmodia, depending on the species.

Black Sugarloaf Study Site

Black Sugarloaf is a small mountain in central north Tasmania. It has well-drained, rocky, dolerite-derived soils and forests dominated by tall trees, particularly eucalypts (*Eucalyptus* species) and blackwood (*Acacia melanoxylon*). Over the past 100 years many of the eucalypts, some over 40-metres tall, were harvested for saw logs, railway sleepers, telegraph poles, and, more recently, on the western side of Black Sugarloaf, for woodchips. 50 hectares (130 acres) of its forest on the north east side is privately owned land that has been protected by a conservation covenant since 2000. Current land management practices preclude the removal or burning of coarse woody debris or the understorey vegetation. The area’s most often surveyed for myxomycetes (Big Tree Track, Thismia Gully and Swamp) are all within 1 kilometre of Home. Big Tree Track is visited at least once a day; the other areas are visited less often.

Tasmania has a cool temperate maritime climate with four distinct seasons. The average maximum daily summer temperatures are between 17 and 23 degrees Celsius and winter daily temperatures are between 3 and 11 degrees Celsius. Rain usually falls in every month with a peak in June and July.

I started looking for slime moulds on the huge old eucalypt logs covered with mosses, leafy liver-

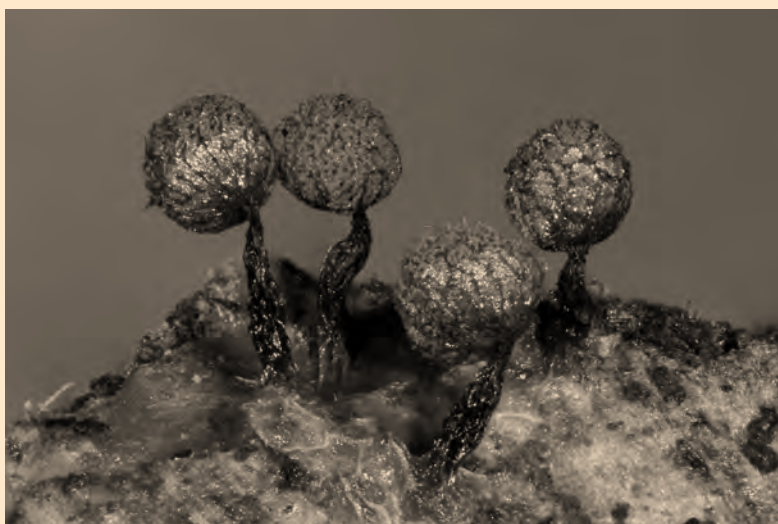
worts, and lichens, and the smaller dogwood (*Pomaderris apetala*) logs—of which there are many. ‘Dogwood’, the common name for an understorey tree unrelated to its northern hemisphere namesake, is tall, thin, and vulnerable to strong winds. This means there are numerous logs at various stages of decay: some are suspended in dense understorey or leaning against other trees; others have been lying on the ground for years and stay sodden in the centre. Before long I started searching for slime moulds on recently fallen eucalypts, standing dead trees, the stems of dead clematis vines, the bark of living trees, and the litter that accumulates on logs or among the fronds of tree ferns. I have found slime moulds on stacks of firewood, raspberry canes, old rhubarb leaves, and fennel stems on the compost heap.

Australia is one of the least studied countries for myxomycetes—although this is slowly changing thanks to a handful of local enthusiasts. In 1995 UK researcher David Mitchell compiled ‘The Myxomycota of Australia’.² This lists 147 species, of which 37 were reported for the first time and 42 were known from Tasmania. The current list for Australia includes 284 species of which over 120 have been found at Black Sugarloaf. There are approximately 1,000 described species worldwide.

As there are no field guides specifically for Australian conditions I use mostly northern hemisphere texts. These contain descriptions, substrate preferences, seasonality, similar-looking species, and whether species are common or rare. Most are beautifully illustrated with colour photographs or line drawings. However, as none are comprehensive, it is difficult to determine if my collections are similar to (*cf.*), have affinities with northern hemisphere species (*aff.*), or if they are new to science. The observation that many Australian myxomycetes ‘don’t quite fit published descriptions’ (to paraphrase a statement made via personal communication with US mycologist Dr Steven Stephenson) makes my task difficult.



Cribraria cancellata



Cribraria sp

The genus *Cribraria* exemplifies these difficulties. *Cribraria* species are characterised by a peridial net—a network of threads or ribs that encases the spore mass—that is easy to see in the field with the aid of a 10× hand lens. But the genus has the reputation of being one of the most taxonomically difficult of all the myxomycete genera. Their identification is even more problematic because in many cases the type specimen has been lost—not that the type specimen was necessarily typical of the species. Northern hemisphere texts suggest that *Cribraria* species are usually associated with pines. There are some ancient pines in the western rainforest and highland areas of Tasmania, but at Black Sugarloaf the forests are dominated by eucalypts not pines. I occasionally find *Cribraria* species on dogwood or blanketleaf, but they are usually collected from very large, very severely decayed blackwood or eucalypt logs and stumps covered in bryophytes.

A handful of species—*Ceratiomyxa fruticulosa*, *Fuligo septica*, *Physarum viride* and *P. album*—are regarded as common and can be identified relatively easily by comparing collections to photographs. However, as most fruiting bodies require microscopic examination, it was only when I had the necessary equipment to make a colour plate of each species with descriptions and photographs of key features that I made considerable progress with their identification.

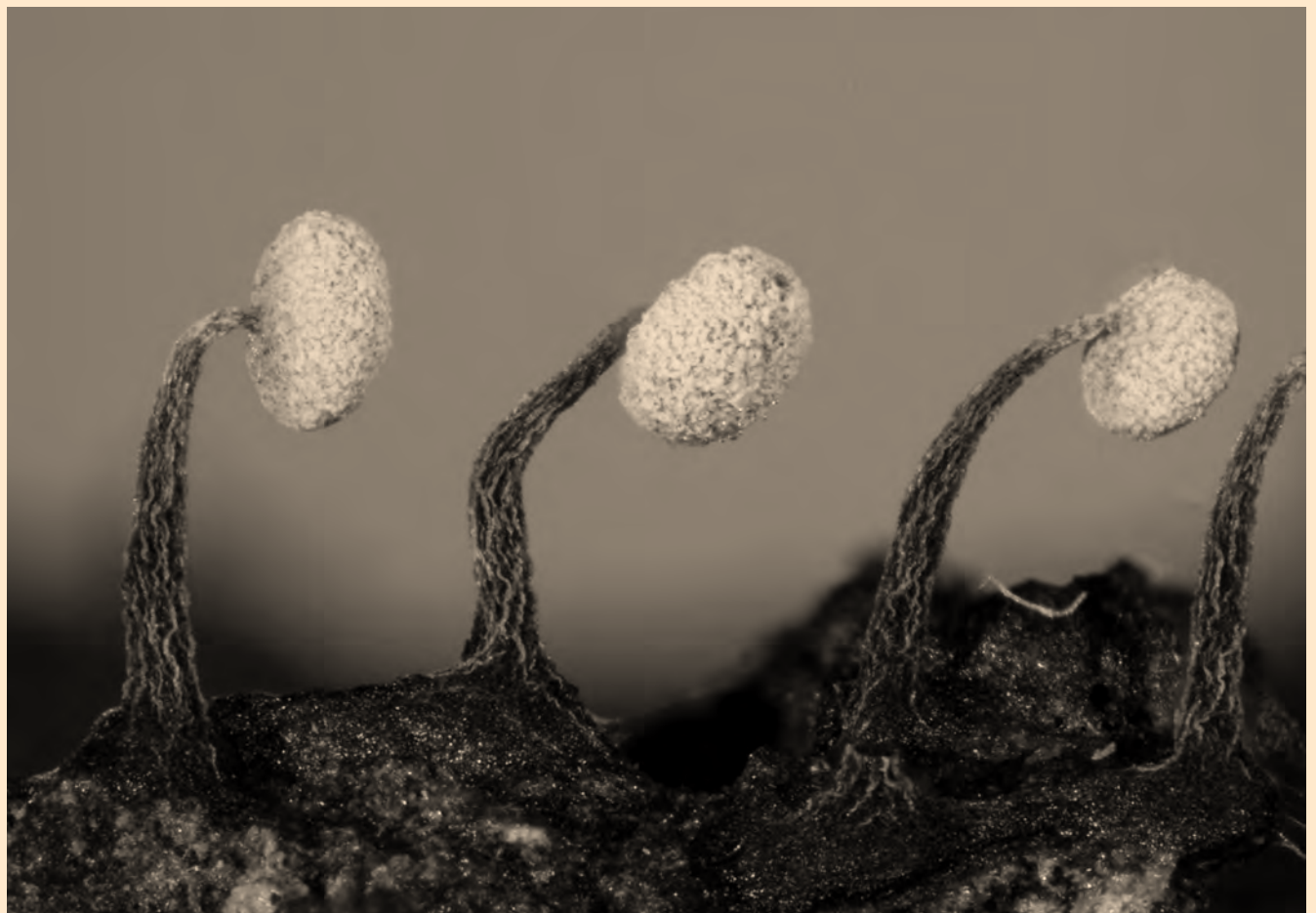
It is interesting to note that it has been the relatively common conspicuous species that have turned out to be either rare in other regions of the world, or new to science. More work to determine some of the smaller species I have collected could indicate more undescribed species.



Ceratiomyxa fruticulosa



Physarum viride



Physarum album

Common, Rare or New to Science?

Elaeomyxa cerifera

Elaeomyxa cerifera was one of the most common species I saw in 2010. You would think that such a common and distinctive species should be easy to identify, but it wasn't until I sent a sample to Fungimap colleague Paul George that he identified it based on the descriptions in Martin & Alexopoulos.³ Martin & Alexopoulos noted that 'the waxy collar is found only in Japanese collections' and Stephenson and Stempen state that it is 'apparently very rare'.⁴ It has never been as prolific as it was in 2010 but it appears every year, so it is certainly not very rare at Black Sugarloaf.



Elaeomyxa cerifera



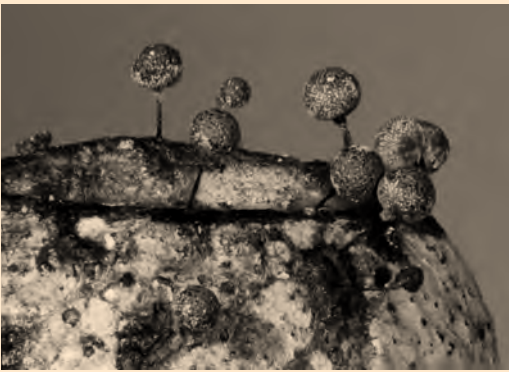
Alwisia lloydiae

Alwisia lloydiae

In 2010 I photographed a slime mould with brush-like bristles arising from the calyculus, a characteristic of one species, the tropical *Tubifera bombardata*. The sparse bristles in the Tasmanian collection arise from the edge rather than the bowl of the calyculus, but it otherwise fits the description of *T. bombardata*. However, it took the experienced eye of Dr. Steven Stephenson to question this determination, and it was genetic sequencing that confirmed that the species is new to science.

The discovery of the Tasmanian collection coincided with a revision of the Reticulariaceae family and the collection of another undescribed species by Fungimap colleague Teresa van der Huel. The research involved genetic sequencing which resulted in the revalidation of the genus *Alwisia*. The genus now includes *Alwisia bombardata*, which has reverted from *Tubifera* to its original name; and two newly described species: *A. morula*, whose type specimen was collected in Costa Rica in 1998; and *A. repens* whose type specimen was collected by Teresa in New South Wales in 2008.

Based on the morphology and genetics of *A. lloydiae*, research by Dr Dmitry Leontyev suggests that it is closest to the last common ancestor of the Reticulariaceae family: 'this species occurs in the Australian continent and in Tasmania, the well-known refuges of relict biota'.⁵



Elaeomyxa reticulospora on gumnut

Elaeomyxa reticulospora

On August 18 2012, I found golden baubles on a twig in Thismia Gully. Its iridescent peridium suggested a *Lamproderma* and the key provided in Martin & Alexopoulos's text was used with immediate success—or so I thought at the time. The spores' reticulate pattern resembled those of *L. cribrarioides*.

On October 3 2013 a similar-looking species with nodules on the capillitium visible with the dissecting (stereo) microscope appeared on small eucalypt branches. The description of *L. cribrarioides* in Martin and Alexopoulos has no reference to nodules but the illustration depicts one small protuberance.

I received a paper, 'A Study on *Lamproderma australiansis* and *L. reticulosporum*', by Gabriel Moreno, et al. and the mystery was solved.⁶

L. reticulosporum and *L. australiansis* are described as 'two apparently very rare species'. *L. reticulosporum* was first described in 1991 and is known only from the type locality: a tropical forest in western Java. *L. australiansis* was first described in 2007 and is represented by two collections from alpine habitat at Thredbo.

The authors conclude: 'both species occur in association with bryophytes in association with litter or bark, suggesting two muscicolous *Lamproderma* species with very different ecological requirements: *L. reticulosporum* occurring in the tropics and *L. australiansis* in an alpine snowbank habitat.'⁷

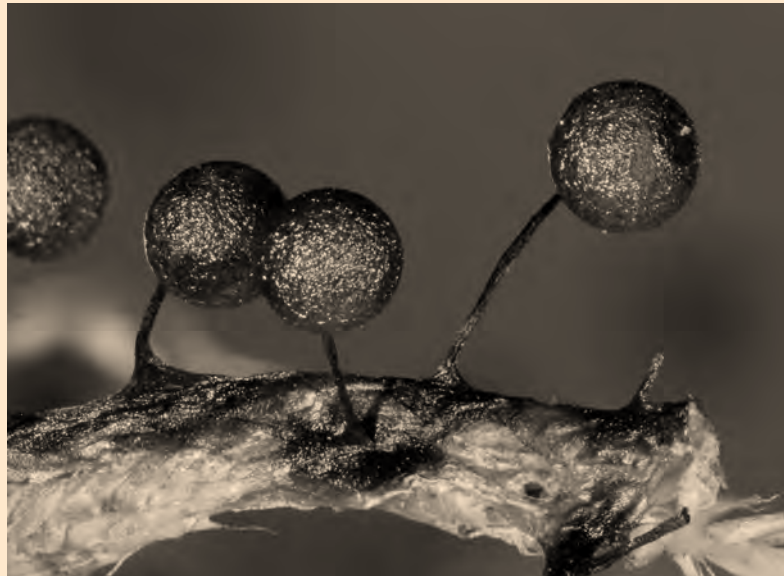
The Black Sugarloaf collections are not muscicolous (growing with moss) and Tasmania is neither tropical nor alpine. However, they were identified as *L. reticulosporum* by Dr Gabriel Moreno, based on habitat and minute differences in morphology.

The paper's authors regard the placement of the species in the genus *Lamproderma* as questionable because of the characters of the capillitium—i.e., the yellowish to orange, oily thickenings that are similar to those of *Elaeomyxa miyazakiensis*. They have transferred the two species to the Genus *Elaeomyxa* until further molecular studies are undertaken.

I have collected *E. reticulospora* every year at Black Sugarloaf since 2010. In June 2017 there was a bumper crop of several hundred sporangia on the accumulated leaf litter on 'big tree' log and more appeared in the same place in 2018. In June 2014 it was collected from a eucalypt forest at Liffey, 25 km south of Black Sugarloaf, and in 2017 from leaf litter at the Minnow River, 40 km to our west.



Lamproderma obovoid



Lamproderma umbilicatum

Iridescence

Iridescence is a widespread phenomenon in the natural world. It has evolved many times in numerous different organisms, so it most likely has a range of functions including visual communication, camouflage, thermoregulation, strength, water repellence, and sexual signalling. But what is its function in myxomycetes?

Iridescence is not caused by a pigment but by the physical interaction between light and the nanometre-scale structure of a surface. Thus, unlike the pigmented peridia (the membrane that covers the spore mass) of some *Physarum* species that gradually fade, the intense iridescent blues, greens, purples, pinks, gold and silver colours remain indefinitely.

There are no publications that discuss the function of iridescence in myxomycetes, so the observation that many fruiting bodies display some iridescence—although it is hardly visible in most species—suggests that it may simply be a by-product of a membrane made of non-cellular protoplasm.

It is unlikely that the colours are for attracting invertebrates to assist in spore dispersal as many species occur in dark places where there is little chance of illumination. Furthermore, the spores of most species are wind dispersed and the invertebrates that are observed feeding on slime moulds are usually seen on the larger species such as *Fuligo septica* that are not iridescent.

The purpose of slime mould fruiting bodies is to produce and disperse spores so perhaps the complex nanostructure of the peridium provides a strong, protective water-repellent layer in some species while the spores mature. The spores themselves are hydrophobic—they resist wetting—so the peridium possibly provides added protection.

A strong water-repellent peridium may help to resist fungal attack. For instance, *Lamproderma*

echinulatum has a relatively robust iridescent peridium and sporangia persist in the field for weeks with little sign of fungal attack. In contrast, those myxomycetes with an evanescent peridium such as *Cribraria*, *Comatricha* and *Stemonitis* species seem particularly vulnerable to fungal infection, as are members of the *Trichiales* that display very little iridescence.

The nanometre-scale structure of an iridescent peridium may help to strengthen it. However, in some iridescent species, most notably *Elaeomyxa cerifera* and *Physarum flavicomum*, the peridium usually splits as soon as the fruiting bodies mature.



Fuligo septica



Physarum flavicomum



Macbrideola aff. *ovoidea*



Trichia decipiens

Slime Mould Hotspots

Aerial litter and standing and fallen dead trees
Standing dead trees, vines, and fallen branches that remain off the ground—known as aerial litter—provide favourable substrates for myxomycetes.

Native clematis is a vigorous vine. At Black Sugarloaf old plants measuring 130 mm diameter at their base, coil on the forest floor before climbing to entwine the canopy foliage of eucalypts and blackwoods. The vines have fissured absorbent bark and a stringy inner core. The dead stems are like sponges and many develop a green patina of crustose lichens.

In May and June 2014, and again in 2018, numerous myxomycetes appeared simultaneously on some of the clematis stems. *Didymium nigripes*, *Dictydiaethalium plumbeum*, and *Physarum pusillum* have appeared elsewhere, but *Badhamia panicea*, *Macbrideola* aff. *ovoidea* and *Perichaena vermicularis* have not yet been found on other plants. It is interesting to note that numerous species appeared on some of the stems while stems dangling alongside them had none.

Treeferns (*Dicksonia antarctica*) are ancient plants that are common in rainforest and wet forests in Tasmania where, in long undisturbed areas, they can reach twelve metres in height. At Black Sugarloaf most are between 1–2 metres tall and a good height to inspect. Over the decades leaves, twigs, and branches fall from the forest canopy and accumulate on the crown of the ferns and among the living and dead fronds. A few days after saturating rain in May, June and July, numerous sporangia of several species—especially *Craterium minutum*, *Didymium clavus*, *D. nigripes* and *D. squamulosum*—appear on the fallen litter and fern fronds. In May 2017 there was a spectacular display of approximately 3,500 fruiting bodies of *Craterium minutum*. Also, in May 2017, two species, *Physarum bictectum* and *P. bivalve*, appeared simultaneously on the treefern litter; the first records of these species at Black Sugarloaf. As with the clematis stems, some ferns are rich in species, while neighbouring ferns have none.

Bedfordia salicina, another slime mould hotspot

The concentration of species is not restricted to aerial litter as described above but is also found on dead, recently fallen, or still standing eucalypts, dogwoods, and especially blanketleaf, a Tasmanian endemic understorey tree belonging to the *Asteraceae* (daisy) family. It is common in wet eucalypt forests where it attains a height of between two and five metres. It has deeply fissured, absorbent bark and is often rich in slime moulds so I regularly check the numerous standing and fallen dead trees along the track.

On September 30 2017 a patch of white sporangia on the underside of a blanketleaf log caught my eye so I set up my camera on a tripod in order to photograph the maturing fruiting bodies. By the following day the white had turned a pale pink characteristic of a developing *Arcyria* sp. By October 9 its capillitium had lost its shape and fallen away from the calyculus, a feature of *Arcyria affinis*. (In contrast, *A. denudata* is scarlet or carmine red when it first appears and its capillitium retains its shape and remains attached to the calyculus.)

When I downloaded my photographs, I saw tiny (0.2 mm diameter) white dots of newly emerging *Clastoderma debaryanum*, an easily recognisable species because of the gland about half-way up the stalk. By October 3 more had appeared so I collected one to photograph at home. As is often the case I'd also collected one fruiting body of an equally small *Cribraria* species bringing the number of species on the log to seven—and all within one metre of each other.

Over the following days, small clusters of *Trichia* with white, yellow, and hot pink sporangia appeared and gradually darkened. According to Nannenga-Bremekamp, the plasmodia of *T. decipiens* is 'white (or pink or orange)'; in the notes about *T. decipiens* var. *olivacea*, the plasmodium is described as pink.⁸

The upper surface of the log also had small groups and scatterings of bright orange 'beads' of *Trichia decipiens*. The orange beads gradually turned dark brown, then, as the fruiting bodies, spores, and elaters dried out, they changed to olive brown.

On October 1 there were three clusters of white beads on the upper surface of the log. By the following day they had elongated and changed shape and colour characteristic of *Stemonitis axifera*.

On the underside of the log were clusters of yellow sessile sporangia of *Trichia affinis*. These sporangia changed from tan brown to yellow as the fruiting bodies dried out and the capillitium (i.e., elaters) started to break through the peridium.

On the morning of October 4, I noticed that numerous pale-yellow sporangia had appeared above the *A. affinis*. They looked whiter later in the day but gradually darkened—more *T. decipiens*.

On October 10 I collected what I thought was a group of *C. debaryanum* as I wanted to calculate the number of sporangia on the log. On close inspection, the tiny sporangia turned out to be more *Cribraria*. Among the *Cribraria* was one sporangium of *Physarum viride*, bringing the number of species on the log to eight.

This concentration of several species on a particular substrate is not unusual. I have observed this so often that if I find one species on a log, I usually check the remainder of the log for either the same species at different stages of development or several different species as in the case of the *Bedfordia*.



Stemonitopsis typhina

The location of these forest hotspots changes from year to year. During the previous several years, a standing dead blanketleaf upslope from the current log under observation was productive with *Trichia decipiens* (I observed white, yellow, orange, and hot pink plasmodia), extensive colonies of *Metatrachia floriformis* that are now infected with the fungus *Polycephalomyces tomentosus* and *Stemonitopsis typhina*. After discovering these slime mould hotspots, I now deliberately searched for the current year's site. In 2018 several of the treeferns were productive as were numerous *Clematis* stems. And on the underside of a fallen small branch of a Blanketleaf, was, among many other species, the very cryptic *Physarum decipiens*—yet another addition to the Black Sugarloaf species list.

Conclusion

Slime moulds are unpredictable, ephemeral, and small; characteristics that make them not only among the least known of all the microorganisms, but also fascinating to study. You never quite know when they will appear—although a few days after rain is usually productive—and it is impossible to determine the species until they are fully mature. I am still adding to the Black Sugarloaf species lists, and I strongly suspect that more of my collections are new to science. These intriguing aspects keep me searching and I anticipate that slime moulds will occupy me for many years to come.

- 1 Thomas Huston Macbride, *The North America Slime Moulds* (New York: Macmillan, 1899).
- 2 David W. Mitchell, 'The Myxomycota of Australia', *Nova Hedwigi* 60, no. 1–2 (1995): 269–295.
- 3 Fungimap, accessed June 18 2019, <https://fungimap.org.au/>; G. W. Martin and C. J. Alexopoulos, *The Myxomycetes* (Iowa: University of Iowa Press, 1969), 176.
- 4 S. L. Stevenson and H. Stempen, *Mycomycetes: A Handbook of Slime Moulds* (Oregon: Timber Press, 1994), 79.
- 5 Relict biota refers to organisms that were widespread in a previous geological epoch but that now only occur in restricted areas. D. Leontyev, 'The Evolution of Sporophore in Reticulariaceae (Myxomycetes)', *Ukrainian Botanical Journal* 73 (2016): 178–184.
- 6 Gabriel Moreno, H. Singer, and S. L. Stephenson, 'A study on *Lamproderma australiensis* and *L. reticulosporum*', *Bol. Soc. Micol. Madrid* 32 (2008): 113–120.
- 7 *ibid.*, 118.
- 8 N. E. Nannenga-Bremekamp, *A Guide to Temperate Myxomycetes* (Bristol: Biopress Limited, 1991), 135.

A WhatsApp Conversation between Giuliana Furci, founder of The Fungi Foundation and author of *Guía de Campo Hongos de Chile*, vol. I and II (Fundación Fungi, 2013 & 2018), and Nico Arze, restaurant builder and amateur mycologist.

Editor's Note:

Nico and Giuliana first had contact in 2016. Somehow, Nico got his hands on Giuliana's phone number and called her looking to purchase the Field Guide to Chilean Fungi vol. I so that he could go out and look for fungi on a lone vacation in Chile; Nico lives in New York City. In his own words, 'I thought it was written by an old lady,' so it was much to his surprise that when he rang Giuliana's doorbell in Santiago, Chile, he was greeted by the great-looking Giuliana (thirty-five years old at the time), who kindly gifted him a spare copy of the book that she had on hand. This meeting was the birth of an intense friendship that now is familial, as they are 'compadres', meaning that Nico is Giuliana's son, Lucas's, godfather.

[9/9/18, 10:05:05 AM]

Giuliana Furci: 🤔

[9/9/18, 10:05:07 AM]

Nico Arze: Hey Giuli, I'm here having breakfast in front of your guidebook on fungi, *Hongos de Chile*.

[9/9/18, 10:05:21 AM]

Giuliana Furci: How do you like it?

[9/9/18, 10:05:34 AM]

Nico Arze: Open it to the *Cyttaria* section.

[9/9/18, 10:05:43 AM]

Giuliana Furci: Got it.

[9/9/18, 10:06:04 AM]

Nico Arze: I never knew there were so many *Cyttarias* in Chile.

[9/9/18, 10:06:51 AM]

Giuliana Furci: This is the first time all the known *Cyttarias* in the southern cone are shown together.

[9/9/18, 10:06:56 AM]

Giuliana Furci: All 7 of them!

[9/9/18, 10:07:52 AM]

Nico Arze: What I love the most about the book is how you managed to include poetry within the taxonomic descriptions, words that you never get to see in a guide book, like *importante* or *despampanante* (important or ravishing).

[9/9/18, 10:08:04 AM]

Nico Arze: Let me give you an example.

[9/9/18, 10:09:59 AM]

Nico Arze: This is just a first glance from *Cyttaria darwinii*. (page number missing): *De contextura firme, elástica, liso cuando joven y de textura rugosa al madurar por los numerosos apotecios separados entre sí y cuyo himenio es anaranjado* (Of firm body, elastic, smooth in its youth and rough build on maturity due to the numerous spaced apart apothecia, and whose hymen is of an orange tonality).

[9/9/18, 10:11:11 AM]

Giuliana Furci: I really want my descriptions to make people feel the emotion of finding a beautiful and outrageously emotional fungus.

[9/9/18, 10:11:25 AM]

Giuliana Furci: I want to make them feel the joy and mystery

[9/9/18, 10:12:31 AM]

Giuliana Furci: and WONDER! I would love to bring out the wonder in all through my love for fungi. That's why the descriptions are straight to the point.

[9/9/18, 10:12:51 AM]

Giuliana Furci: Some field guides are really boring. [9/9/18, 10:16:38 AM] Nico Arze: You still use complex and obscure taxonomic words, but it reads like prose. There is something that makes it 'accessible' that has nothing to do with the lack of complexity of what's described but with the way the words are placed next to each other. It's hard to describe. This is fundamental because it reaches a non-specialist audience without assuming we are all dumb. You know especially these days with the unbearable and cryptic ramification of taxonomy with new DNA testing and this apparent war between macro- and microscopy and genetic research. It is making everyone give up naming mushrooms. Not that mushrooms care! But your book has that ability to place poetry where it has been assumed it should not exist (in scientific literature).

[9/9/18, 10:18:06 AM]

Giuliana Furci: Well ... I do come (in part) from Chile ... known as the Land of Poets!

[9/9/18, 10:18:38 AM]

Nico Arze: Yeah and all of them poets from Chile, what they are really good at is at describing nature!

[9/9/18, 10:19:03 AM]

Giuliana Furci: Have you heard of Alexander H. Smith? The mycologist from the United States of America? He wrote descriptions that are very enchanting. They capture emotions.

[9/9/18, 10:19:20 AM]

Nico Arze: I have the book. Let me bring it over.

[9/9/18, 10:21:23 AM]

Giuliana Furci: I find most books on taxonomy tend to push our interest in fungi further and further away. The language is so estranged from the find. The language is so estranged from what we see.

[9/9/18, 10:24:49 AM]

Nico Arze: Yeah. What if this has to do with the slow disappearance of field sciences and the advancement of scientists in labs and offices? When you read Humboldt or Darwin, who were

pure field scientists, you get that accessible and poetic language in their taxonomic descriptions. You do the same, because you are ultimately a field mycologist.

[9/9/18, 10:25:40 AM]

Nico Arze: I heard that at the time of Darwin there was a big ruse between field and lab scientists and they hated each other!

[9/9/18, 10:26:46 AM]

Giuliana Furci: That's an interesting thought.

[9/9/18, 10:27:53 AM]

Giuliana Furci: Imagine that now there is a massive discussion in the mycological scientific community to change the Nomenclature Code for Plants, Fungi and Algae, so that a DNA sequence be enough to name a species. Basically, no physical body. Only a sequence.

[9/9/18, 10:28:31 AM]

Giuliana Furci: There has been a lot of push back and the mycological community will revise this in the next 4 years.

[9/9/18, 10:29:39 AM]

Nico Arze: So that means that you can describe a mushroom without even seeing it?

[9/9/18, 10:29:55 AM]

Giuliana Furci: Yes. Without anybody ever having seen it.

[9/9/18, 10:37:00 AM]

Nico Arze: 😊 I'm sure there are reasons behind it, but as a non-scientist this is my issue: through naming, scientists own what they name ... Before them the word *Cyttaria* and *darwinii* were not placed together. Now they are together, and it represents something (a mushroom that you and I and our friend Cami are very much in love with). And because of that they have a responsibility to communicate it. They own it! To read new words and phrasing is deeply poetic because it's unknown and mysterious! Even words like *estroma* or *tercio distal* (which you use to describe *Cyttaria darwinii*), I have no idea what they mean and still I become so excited by reading them. I think there is a reason to why Smith and your books work poetically. My intuition tells me it's because you guys spent A LOT of time in the woods, smelling, touching and vibrating with mushrooms. And these DNA taxonomists that describe mushrooms without seeing them probably won't. How are they going to own their newly created language?

[9/9/18, 10:39:10 AM]

Giuliana Furci: That may be true. But let me ask you about Gary Lincoff for example? He spent SO much time in the woods. What do you think of his Audubon Guide?²

[9/9/18, 10:44:41 AM]

Nico Arze: God gave yeast to bakers and Gary's guide to us amateurs. His book is amazing, but I think he/they sacrificed some poetry to try to make the language more 'accessible'. I heard gossip that he was asked by Audubon to come up with 'common' names for every single of the hundreds of mushrooms described. So he made up names like 'red raspberry slime' and 'yellow cushion *hypochrea*', which is just not very helpful, at least to me. You sound smarter when you

describe rare mushrooms with weird Latin names. You can always make them up and get away with it. I can tell also that Gary had to be very concise when describing each mushroom considering he had to fit all those mushrooms in a guide book. Free Gary!!

[9/9/18, 10:46:36 AM]

Giuliana Furci: Thank the Lord for yeasts in general!

[9/9/18, 10:50:36 AM]

Giuliana Furci: A good description isn't about using common words or not, it's really about how to convey the way you find a fungus in the field, about the temperature, the light, the texture and the vibration it emits. A good description in a field guide should take you to the many emotions aroused when looking at a fungus in the field. Curiously, there are commonalities in the emotions, vibes, and feelings of many who find the same species. I've never come across someone who has found a *Morchella* and thought nothing of it. Everyone goes nuts! Overwhelmed by emotions. Even if they don't know it's a choice edible.

[9/9/18, 10:53:36 AM]

Nico Arze: That is so true. You know I found only one description of *Cyttaria darwinii* that is better than yours. Here it is.

[9/9/18, 10:55:02 AM]

Nico Arze:



[9/9/18, 10:55:50 AM]

Giuliana Furci: Hahahahahahaha! Gerry McDonald!

[9/9/18, 10:56:18 AM]

Giuliana Furci: Winner of Best Costume for Non-Native Species at the 2018 Telluride Mushroom Festival!

[9/9/18, 10:56:42 AM]

Nico Arze: Even the leaves! Compare to this!

[9/9/18, 10:57:13 AM] Nico Arze:



[9/9/18, 10:57:56 AM]

Giuliana Furci: Yes, but that's *Cyttaria hariotii*! You need the new field guide! hahahaha

[9/9/18, 10:58:34 AM]

Nico Arze: They all look like Gerry to me!

[9/9/18, 11:00:32 AM]

Giuliana Furci: Did you know that *Cyttaria* is a Gondwanic species? That means that it drifted with the continents after the supercontinent Gondwana separated to form the Southern Hemisphere. You can only see *Cyttaria* in South America and Australasia.

[9/9/18, 11:01:35 AM]

Nico Arze: But in Australasia, are they all together in one guide book? 😊

Sent from my iPhone

- 1 Alexander H. Smith (1904–1986), was a mycologist well known for his contributions to the taxonomy of fungi. With Nancy Smith Weber, he co-authored the *Mushroom Hunter's Field Guide* (Ann Arbor: University of Michigan Press, first edition 1963).
- 2 Gary Lincoff, *The Audubon Society Field Guide to North American Mushrooms* (New York: Knopf Press, 1981).

Reimagining Fungi— A Foray in the Mycobiome

Alison Pouliot

Fungi are often referred to as the ‘forgotten kingdom’ in global biodiversity conservation that favours organisms with backbones or chlorophyll. Mycologists lament their own rarity relative to botanists and zoologists. Mushrooms, however, have never been absent from ethnography. Fungi adorn children’s books and have appeared in early herbals, prose, and poetry, often in metaphoric form, since classical Greek and Roman times. New fields of study within the arts and humanities, natural and social sciences offer diverse interpretations of the zones of interaction between humans and fungi.

Although overshadowed by flora and fauna, the systematics, evolution, and ecology of fungi is becoming better known. The discovery of DNA and rapid development of molecular technologies, especially next-generation sequencing, has revolutionised fungal systematics and enabled large-scale DNA-sequence datasets. These have provided not just new understanding of the ecological and evolutionary significances of fungi, but also their staggering diversity. Molecular taxonomy has catalysed our intellectual understanding of the living world, but just for a moment, consider how it might also have simultaneously distanced us from a more sensory understanding of life, rendering us as isolated observers of our own world.

As taxonomy shifts from sensory morphology-based classification into the more abstract world of DNA, the disjunct for the non-scientist widens. While knowledge is, of course, critical to the conservation of fungi, it rarely kindles an environmental ethic on its own. If we are to include fungi in ideas about nature or conservation or biodiversity, indeed to dare to *care* about them, then they need to be retained in the imagination. I am not referring to fungal associations with fairies and their kin—although they too have their place—but rather, how fungi as metaphors and models offer possibilities to rethink traditional constructs by which nature has been historically understood. In doing so, we might even be able to imagine a different future and temper the current rate of environmental decline. Imag-

ination ignites and innovates knowledge, offers fresh perspectives, and urges us to reconsider existing assumptions. Including fungi in how we think about fundamental notions of biodiversity, conservation, and human responsibility offers more inclusive and expansive possibilities to address urgent environmental issues.

Fungi not only represent a significant proportion of the genetic diversity on Earth, but their activities shape and drive fundamental process of terrestrial ecosystems, the extent of which is only recently becoming apparent. Although scientific mycology began in the Northern Hemisphere and fungus foraging is more commonly associated with continental Europe, the Southern Hemisphere harbours the greater diversity of fungi including many



The edibility of some fungi has long been known and provides tangible connections between humans and fungi.



Fungi need a place in the imagination as well as within scientific understanding.

unique fungal lineages. Recent research has overturned earlier ideas about the widespread distribution of species and shown that most fungi are not cosmopolitan, but regionally endemic, and strongly influenced by climate and isolation. This is significant in that knowledge about fungi from one hemisphere cannot necessarily be translocated to the other, without being contextualised within local environments and conditions. Lesser known Austral (southern) species are being discovered at an astonishing rate. This article takes us into fungal underworlds at the southern edge to reflect on how the ‘fungal imagination’ and allegorical interpretations can enhance not just the scientific understanding of fungi, but the natural world more broadly. It draws on perspectives of two other southern authors in this special issue. Fungus enthusiast Giuliana Furci hails from Chile where she strives for the inclusion of fungi in biodiversity conservation and established Fundación Fungi (The Fungi Foundation). Australian naturalist Sarah Lloyd is an ardent advocate of those curious fungal allies, the slime moulds, and spends her time hunting them down in the damp depths of the Tasmanian bush.



Piptoporus betulinus is known for its antibacterial properties and was carried by Ötzi the Iceman.



Taxonomy is revealing the staggering extent of Australia's fungal diversity. Nargan's bonnet (*Mycena nargan*), named after a mythical Aboriginal being, was only scientifically described in 1995.

Human-Fungus Histories

Humans have recognised the versatility and usefulness of fungi for a long time. Advances in fungal biotechnology in industry, medicine, and agriculture have seen a plethora of fungal products conceived for human use. Fungi have a long history in the production of beverages and foods, medicines and textiles, and more recently, bioremediation. The edibility of some wild mushrooms provides the most obvious connection between fungi and humans. Many European, Russian, Asian, Central and South American, and some African countries have long traditions of foraging for edible mushrooms, either as a subsistence food or culinary delicacy. Moreover, it seems that foraging is not just about food, but also holds greater cultural significances. The relatively poor nutritional value of fungi relative to the effort required to collect them, along with the nonchalance with which foragers collect fungi from heavily contaminated environments such as in the Ukraine and Belarus, testifies to their cultural importance. In Anglophone cultures, long traditions of foraging are rare but recent decades have seen an explosion of interest particularly in North America, the United Kingdom, and, more recently, Australia. For some people, foraging represents an attempt to

connect with European cultural roots and generational relationships with mushrooms. For others, foraging reflects a rejection of industrialised food cultures and the desire for unadulterated food or to rediscover dietary traditions. For many, foraging simply provides the opportunity for an enjoyable autumn wander through the forest. The demand for commercially produced mushrooms also continues to grow. Fungi were first cultivated in the dank Parisian subterrains and today the production of mushrooms and fungal products has a multi-billion dollar annual global value.

Wind back the clock 5,300 years and fungi feature in ancient first aid kits. The discovery of Ötzi the Iceman in the Ötztal Alps on the Austrian-Italian border in 1991 revealed early connections between humans and fungi. Ötzi carried the bracket fungus *Piptoporus betulinus*, known for its antibacterial properties, along with *Fomes fomentarius*, a tinder fungus used to start fire. Numerous other human-fungal associations share lengthy histories. Psychotropic fungi have been used for spiritual enlightenment and religious communion by Mesoamericans since pre-Columbian times. The Chinese have valued fungi as food and medicine for centuries. However, the first knowledge of human uses of fungi is likely to have begun tens of thousands of



Cyttaria grow in association with the tree genus *Nothofagus* and are hence only found in the Southern Hemisphere.

years ago by Australian Aboriginal people. The iconic beech orange, *Cyttaria gunnii*, for example, was once a traditional food of Aboriginal Australians and other *Cyttaria* are eaten in South America. All twelve species of *Cyttaria* grow in association with the tree genus *Nothofagus* and are hence only found in the Southern Hemisphere. The most famous, and a favourite of Giuliana Furci, is Darwin's fungus, *Cyttaria darwinii*, which he collected from Tierra del Fuego during the voyage of the *Beagle* in 1832. *Cyttaria* has also been a focus of mycologists' evolutionary and biogeographic research and Australian mycogeography (the study of fungus distribution) began with the observation of this genus. Other fungi such as the truffles *Elderia arenivaga* and *Mycoclelandia bulundari* were (and still are)

both widely consumed by Aboriginal Australians. Human–fungal connectivities extend even further into geological time scales with phylogenetic revelations of biological relatedness spanning millennia.

Human interactions with fungi were recorded firstly through oral traditions and later in literature. Idiosyncratic characteristics such as bizarre morphologies, indeterminacy, and ephemerality have embedded mushrooms deeply within the folklore of many cultures. Other qualities such as toxicity and edibility, luminosity, and hallucinogenicity captured imaginations and brought particular fungi into the spotlight. Conspicuous and eccentric forms capture attention. It is perhaps little wonder that the spectacular anemone stinkhorn (*Aseroë rubra*), with its potent appearance and abhorrent odour, was the first species to be described in Australia, by French naturalist, Jacques Labillardière in 1792. While negative associations with witchcraft and the supernatural have tarnished the profile of fungi, superstitions might also have prolonged human lives through the avoidance of reputedly toxic species.



Human interactions with fungi give them meaning.

Mycelial Metaphors

Although it is the extraordinary manifestations of fungus sporocarps (reproductive structures such as mushrooms) that spur our imaginations, arguably the most compelling feature of fungi is their capacity for hyphal growth. Hyphae (long branching filamentous tubes) collectively form the fungus mycelium (pl. mycelia) and are the basic elementary units of fungal life. Expansive wefts of hyphae provide the mycelial architecture of terrestrial ecosystems. The oft-quoted metaphors of mycelial connections as 'nature's internet' or the 'wood wide web' encapsulate both the spatial extent and communicative capacity of the earth's fungal matrix. In doing so it provides another means to interpret the world and the complexities of the fungal life-support system.



The conspicuous anemone stinkhorn (*Aseroë rubra*) was the first species to be scientifically described in Australia.



Fungal mycelia provide the fabric that underpins soils.



The above-ground mycelium of *Mycena cystidiosa* explores new territory.

Mycelia perceive and respond to their environments, communicate, and form connections with the vast majority of plants. While the traditional Western taxonomic tendency is to conceive and classify things (including fungi) as individual entities, there are infinite literal and allegorical possibilities to imagine mycelium as a framework of alliances and flows. This enables us to not just rethink fungi, but ecosystems more broadly, including interactions with human societies. Mycelia mirror the hidden organisational infrastructure of communication and transportation beneath cities. Mutualisms between fungi and plants are reflected in financial markets based on supply and demand. Fungal communities coordinate trading strategies and control transaction costs and competition. They trade partners, hoard resources, apply sanctions, cheat, punish, and reward. Cooperative interactions and exchanges between species provide ecosystem stability and resilience and drive evolutionary innovation. Moreover, these complex systems of communication, transport, and exchange between fungi and plants are not always harmonious. Conflicts underlie the apparent cooperation and these tensions are revelatory. The mycelial nexus also offers metaphors for conservation thinking. They force us to accept unpredictability and uncertainty, to attune to the flux and dynamism of natural systems, offering possibilities beyond the current unimaginative and illusory approach of managing for control.

Fungal mycelia provide the fabric that underpins soils. They mediate nutrient cycles and energy flows. They are also inextricably connected to other life forms and affected by changes to environments, especially human-induced decline. The extent and urgency of environmental issues and our failing to adequately address them requires fundamentally new approaches. Mycologists and systematists are revealing the astonishing extent and significance of the mycobiome. However, the scientific knowledge needed to articulate these significances is not always the same as that needed to engender interest and action. Fungi were among the first terrestrial lifeforms and most of their lives are conducted within invisible terrains. Comprehending frameworks of microscopic space or evolutionary timescales necessary to understanding fungi can be difficult to grasp. While scientists must resist the pressure to oversimplify complex concepts for wider audiences, they do need ways to distil the essence of their findings so as to not just inform, but capture hearts and imaginations. This requires imaginative ways to contextualise and align scientific knowledge within people's interests, experiences, and values. Notwithstanding, it is a tricky balance to integrate aesthetic and imaginative elements while maintaining scientific integrity. Like fungi, mycologists stand to benefit from mutually beneficial symbioses with those from other fields.

New ideas from multiple perspectives can offer the more flexible approach of the arts while maintaining the rigorous fundamentals of science, to stimulate more radical and imaginative thinking. Advocates and activists, artists and philosophers, forayers and foragers, and scholars can assist mycologists by posing new questions and reframing old ones, broadening the range of ideas and voices to address the environmental challenges of our time. How can knowledge or *evidence* be experienced, narrated, and represented in ways that transcend disciplines and allow for multiple translations in a rapidly changing world? Environmental issues are essentially human issues, and engendering interest and support usually requires repositioning issues within human scales and contexts. New ethnographic nar-



Names provide meaning, but not naming something can retain its mystique.

ratives are exploring the emotional, cognitive, and cultural significances that people assign to fungi. These cultural constructions and semantic frames attribute meaning to fungi and expose their symbolic potency. While differentiating species is important for both scientific and cultural reasons, it is not always sufficient to establish 'meaning'. Metaphors can provide sensory and aesthetic meaning. Narratives and stories trigger memories, build connections, make abstract concepts accessible, and infuse ethics into knowledge.

Ask yourself, how many fungi can you name? How does this compare with flora and fauna? If you struggled to get beyond a dozen fungi, or perhaps even just a few, you are in the Australian majority. If you scored a dozen or more, it is likely that you are

either a naturalist, mycophagist, or come from a background other than Anglophone. An Anglophone aversion to fungi is evident in the relatively limited publicly accessible fungal literature in English language. Most books on fungi in English language can be categorised as either technical mycological texts, taxonomic monographs, or field guides. The necessary objectivity of scientific documentation as represented in field guides can, as Giuliana Furci laments, knock the wonder and mystery out of fungi. Giuliana contests scientific traditions and expectations by introducing a poetic element into the descriptions of fungi in her field guide. As an avid fungus conservationist, perhaps her motivation is as much about enchanting and instilling joy and wonder in fungi as accurately iden-

tifying species. She contends, 'a good description in a field guide should take you to the many emotions aroused when looking at a fungus in the field'.

Returning to the Dirt

The rapid growth of molecular science reveals exciting new fungal discoveries daily. However, even the best scientific tools are not finely honed enough to reveal all there is to know about fungi. Those who work in the field and who wander the forest and other fungal environments, understand fungi in other ways. Their knowledge arises from familiarity, from intimate knowledge of environments over time. While so much about fungi has been determined in the laboratory, the greater significance of their existence is apparent in the field. Farmers, field workers, naturalists and others have much to tell about fungi. Sarah Lloyd lives in the middle of a forest. She shares that habitat with slime moulds and other life forms. Repeated observation over seven years has given her insights into their ecologies, habits, and life histories. Her microscope has enabled her to record the finer details and establish

names. However, it is the hours in the field observing organisms *in situ* that provides bigger picture impressions of their extraordinary lives and constantly draw one back to the field. Slow attentive wandering attunes one not just to species and environments, but also to weather, changes and connections, and to the unforeseen. It enables a heightening of perception and sensitivity to nuance. It allows for sensate engagement rather than detached speculation. Giuliana Furci insists on finding the language to reflect her experience of fungi in the field. She laments 'I find most books on taxonomy tend to push our interest in fungi further and further away. The language is so estranged from the find. The language is so estranged from what we see'.

Excluding fungi from our understanding of the biosphere perpetuates limited interpretations of the story of life on earth. One might also argue that to overlook fungi is to ignore a part of our own being and the complexity of our interactions with other species. We need scientific accounts, human accounts, imaginative accounts. All of them contribute to the bigger picture understanding of the literal and allegorical significances of fungal realms.

ÆS JÁLA-KAWÉSQAR KUTEKÉ ČE = 'My Ancestor and Me'

Patricia Messier Loncuante

Jekstas-lájep = *Florhermosa Seudonimo*
[beautiful flower, pseudonym]

Arts and Crafts

I was twenty-two years old when I learned about basketry: I became interested in Kawésqar culture after my father's sudden death. I did some research and asked my aunt to teach me how to weave. She corrected a few details, and I quickly learned how to apply this new skill.

Those were hard times. My father's death changed the whole structure of my family: my mother, my brother, and I took charge of the household expenses. My mother began to work, taking up the roles of mother and providing father.

I began by selling my handcraft door-to-door or at public events; we needed the extra income to get along. Over the years, I made myself known to the people working at these events and at other cultural spaces, and they began to place orders. Those were beautiful but also very hard times. We saved money to meet basic needs; I couldn't afford public transportation so I walked all the time.

My mother used to give us some money, but I chose instead to earn it for myself. I didn't like the idea of living at the expense of my parents. I see myself as someone who gets ahead by her own means. For me, it wasn't about money, even if the extra cash was of great help. At that time, I found out about technical degrees given at Universidad de Magallanes. I sent out an application and was accepted at one program, but unfortunately, I couldn't afford the tuition. My mother helped me out by talking to the school so I could become an executive assistant with computer skills. From then on I was exposed to university life and began developing my own cultural interests. I continued to build knowledge as an 'urban indigenous person', in other words, from the perspective of someone who was born at a different place from that where Kawésqar culture is found. I respect what I've learned through my aunts, uncles, and cousins, by coming into direct contact with my culture. However, I think it makes no difference where you are born if you want to know learn about culture; there is a certain value in becoming an ambassador for Kawésqar identity.

The process of creating a Kawésqar basket begins by collecting raw material, basket rush, from a town called San Juan in the outskirts of Punta Arenas. I bring along friends and family members to help me; it is hard work, mainly due to transportation, as not many of us own a car or know how to drive, which is one of our greatest shortcomings.

The task of collecting basket rush demands concentration, strength, and speed. We spend three hours a day in highland areas; this type of grass grows best in wetlands and can vary greatly in size. Full-grown rush can be bent and easily broken; otherwise it must be cut off at ground level. The rush stems that are too thick or thin are used to give shape to the basket. Rush harvest time is between December and April, but horses and cattle use it for food, so we must wait for them to clear the area. These issues cannot be anticipated in advance.

Preparation for basket weaving involves soaking the plant in water and allowing it dry for a week, otherwise the strands might break. The weaving process begins by tying eight to ten knots, depending on the size of the basket. One must weave quickly since the rushes may dry up too much and lose flexibility. The process will depend on the size of the basket: jewellery, breadbaskets, and all kinds of decorative objects. Basket rush is easy to work with, which gives free rein to my own creativity.

Unfortunately, people don't appreciate local craftsmanship and ancestral traditions. This weaving technique dates back to 6000 BCE and we're adding value to it today. Fuel expenses, long workdays ... if the baskets are sold for \$1,000 or \$3,000 pesos it detracts from the quality of the work accomplished.

Kawésqar craftsmanship involves basketry as well as wood-bark canoes, sealskin barges, and harpoons, to name a few examples. Once I'd learned basket weaving, I became interested in crafting canoes. I used bark for the first one I ever made and then turned to sealskin, which isn't easy to handle. First, the skin is tanned, then washed and allowed to dry; once it whitens on the inside it's ready for use. The leather is oily and gives off a strong smell, therefore a long process is required to obtain a quality product.

The skin is cut into small, medium, or large pieces, depending on availability. Some artisans sew them together by using leather strips; sealskin should be carefully trimmed, which is learned by doing. In short, any craftwork takes a lot of time and dedication.

Traditions

People wonder why I take so much pleasure in revisiting Kawésqar handcrafts; I'm always on the lookout for new ancestral elements. I've been working as a 'Traditional Educator in Kawésqar Culture' for four years; first at Centro de Educación de Adultos y Escuela Croacia (2015, 2016), and currently at Fundación para el Desarrollo XII Región Magallanes Fide XII (2017, 2018). Most of all, I teach essential elements of the Kawésqar culture, e.g., grammar, vowels, numbers, colours, the alphabet, idioms, and expressions in Spanish and Kawésqar.

I also teach geography, in particular about regional divisions and other basic information, for example, why the Kawésqar people canoed, what they ate, or how they lived. Some classes also address traditional tools and utensils; my job here is to share what I know about handcraft techniques, so that students understand the role of each tool and how the Kawésqar used nature to their own advantage. This was done very simply, without sophisticated tools, which I try to explain in a simple yet instructive way. During practice workshop sessions, we go over many mediums, such as plasticine, paper, Eva foam, papier mâché, cardboard sheets, rice paper, tempera, oil paint, wool, clay, hemp fibres, alcohol markers, crayons, colour pencils ... there are many techniques available.

The result is a series of unique works of art inspired by nature: plates and figures featuring birds

and mammals, hunting and fishing utensils, geographical and nautical elements. The Traditional Educator's creativity is expressed in these works of indubitable beauty. The student gets to learn the culture from a different perspective. I teach what I learned as a beginner and my students truly enjoy it (both young and adult), as I encourage them to fully deploy their creative strengths.

Additionally, we use photographs and slides showing Kawésqar family portraits, games, geography, and the Kawésqar alphabet, in order to promote a better understanding of the customs and traditions. The workshop teaches how the Kawésqar made their hunting/fishing tools and built their homes by using alternative materials, and how they managed to survive, often in conditions of great hardship.

The workshop also includes songs, words in Kawésqar language, traditional oral tales, and other sound archives. We then repeat the words aloud, focusing on different aspects of pronunciation, and write them down, separating syllables and sentences. In grammar work texts, the students focus on their sentence-writing skills.

The students gain basic knowledge through the human body, familiar faces, birds, mammals; they're asked to use Kawésqar language to name them. The students always show interest in new names, for instance, bread is *kilita*, potatoe is *kuina*, both of which are foreign introduced species.

I believe that traditional tales are the true reflection of a culture. They come from the elders telling stories to children, so they can imagine themselves in the teller's story. This ancestral tradition narrates Kawésqar life through its flora and fauna, for example the 'monsters' stories are actually about threatening mammals that they hadn't seen before. Another type of storytelling is based on cultural taboos, which are ways of keeping children off sketchy places or circumstances, for them not look at certain things, in order to avoid family misfortunes.

These stories have an educational meaning for Kawésqar children, which is why we learn about storytelling. The tales are narrated at midnight in order to create a special atmosphere. Unfortunately, there are only a few storytellers left. When I think and write about Kawésqar culture, I try to imagine where this ancestral storytelling took place. I envision the storyteller in a silent place, where you can feel the cool breeze. I imagine the storyteller around a campfire, surrounded by suspense and expectation, the young listeners wondering how the story will unfold, which awakens their imagination.

Every year on June 24, during the winter equinox, we commemorate the national indigenous peoples' day. In Chile there are nine peoples, and each celebrates the seasonal rebirth of nature by carrying out various activities over several days. On September 5, we celebrate the day of indigenous women, and students learn that women played a crucial role in ancestral culture: they were in charge of transmitting knowledge from one generation to the next, keeping alive their culture, which is much harder to do today. The most rewarding and beautiful thing happens when the students show their work in the final classroom presentation, explaining the techniques they used.

Life is more expensive today. There's no bartering handicrafts or food. Flour, potatoes, noodles, and vegetable oils were often exchanged in the past, and later on clothing and tools reached far-off areas like Magallanes and Antarctica through migration.

Once I managed to assimilate Kawésqar culture and basketry, I understood the beauty in ancient crafts and in rush, a plant that's hard to find

these days. White people, or *jemá*, insist upon destroying the places where rush has always grown, which makes it almost impossible to keep ancient crafts alive. In addition to this, society isn't aware that basketry is a very difficult way to make a living.

I'm convinced that this knowledge is best transmitted by relatives, by being trained by them to apply these ancient crafts. However, I'd never thought about teaching them to students. It's both meaningful and rewarding to be able to teach and to make them proud of having learned about their roots from a representative of the Kawésqar people, and enable them to teach future generations what they've learned. As for the future, I wish for schools to value and respect Kawésqar intercultural education. There's great historical content in an ancestral culture that sailed the channels of Magallanes and Antarctica.

The first time I made a basket, guided by my aunt Yolanda, I couldn't stop thinking about my paternal grandmother, Margarita Canales. How exciting it would have been for me to learn from her! I deeply regret not having met my grandparents: I'd give anything for an hour with my grandmother and be able to hear about her life experience. I imagine her gaze, her hands, her smile ... Tears fill my eyes when I think about her life. Was she happy? Did she suffer much? All of her children died except for her youngest, my father Carlos Messier Canales. It's a very sad and tragic story: my aunts and uncles died from disease. Moreover, the average life expectancy was thirty years; since then, tremendous strides have been made in all scientific fields as well as in technology.

I sometimes feel that my grandmother lives within me. I'm always surprised by my hand's natural ability for weaving; I feel as if she was protecting and guiding me back to my roots. I've experienced the most amazing paranormal occurrences that have left me stunned, but also quite happy and peaceful. My peers always say that my smile reminds them of my grandmother. I also wear my hair short, in the way women used to in the past. You can see in old Kawésqar pictures that the people have facial features similar to those you'll find three generations later.

Radio Show

In the Magallanes region, great importance is attached to the study of Kawésqar identity, from scientific research on blood types to the field of oral heritage, among others. But I noticed early on that there were no mass communication resources available, and I felt I had to do something about it. I believe it is lacking in generosity to keep what you know to yourself, which is why I decided to apply for public funding to start my radio show in 2013.

Radio is the most widely used source of news in the Magallanes region because it's accessible to almost everyone. This allowed me to create a space where ideas on Kawésqar culture could be communicated among the community. Since I am not a journalist, and I was solely responsible for the project, I had to learn along the way. For instance, I did not know what a script was; when my project was chosen, the selection committee mentioned that I lacked experience in the field and that I needed a scriptwriter.

The first segment consisted of pre-recorded interviews. I hired a station manager and an announcer from Radio Magallanes who taught me everything that goes on at a radio station. For the second segment, I worked with María Felicia González Cárcamo (a woman of Kawésqar descent) in the creation of content and live music, along with a technician

and a writer. One of the biggest challenges was live radio. Although I was very nervous at first, I learned that it is important to stay calm so as to generate the trusting atmosphere of a friendly meeting.

The show's first season was made up of interviews to public officials, bureau chiefs and people in the army. *DIFUSIÓN RADIAL DE LA CULTURA KAWÉSQAR* (Radio Diffusion of Kawésqar Culture) was aired on Saturdays from 2–3pm in the afternoon by Radio Magallanes. Over 4 months, we broadcasted 16 interviews, but the program was so successful that another 6 interviewees were added to the list. Topics involving the army were discussed due to the underlying connections of it to our culture, such as the building of Puerto Edén, a Kawésqar settlement. In 1939, President Pedro Aguirre Cerda's Indigenous Peoples Act had entrusted the Chilean Air Force (FACH) to supply food and housing in the archipelago.

Five years later, I hosted the show's second season called *AFSÉSKTA TÁWON KUČELÁKSO—CONVERSAR CON UN AMIGO* (Talking to a Friend), which included competitions and prizes awarded by women of Kawésqar descent. The program was split in two parts: the first consisted in disseminating information about Kawésqar culture through eight different segments that addressed geography, food, the social roles of women and men, housing, canoeing, ornamentation and utensils, camping and fishing skills. In seven additional segments, I interviewed academics and Kawésqar community members. We turned to the Department of Education's *Consulta Indígena* (Indigenous Consultation): what is the difference between *Consejo Nacional de la Cultura y las Artes* (National Council of Culture and Arts) and its change to *Ministerio de las Culturas, las Artes y el Patrimonio* (Ministry of Cultures, Arts, and Patrimony)? A local writer greatly contributed to the program by sharing air force history, particularly data provided by Lautaro Edén Wellington (1925–1953), a Kawésqar recruited into the military.

We also interviewed a group of high-level academics (Nelson Cárcamo Barrera, Regional Secretary of the Ministry of Education; Walter Molina Chavez, Doctor in Education; Nelson Aguilera Águila, anthropologist; Paola Grendi Ilharreborde, anthropologist and director at Museo Regional de Magallanes; Salvatore Cirillo Dama, Professor of Philosophy, Doctor in Education and director at Museo Maggiorino Borgatello). These scholars worked directly with locals in order to learn about their customs, traditions, and worldview, just like Universidad de Magallanes collaborates with locals to restore Kawésqar culture and history.

Additionally, I shared my own experience with local arts and crafts as a way to revive and preserve Kawésqar culture. We also discussed our people's painful history: the Kawésqar were victims of persistent degrading treatment on the basis of their indigenous origin as narrated in a book by Paola Grendi Ilharreborde and a local journalist, Carlos Vega Delgado, the outcome of an extensive research project based upon records from the National Archives in Santiago. What's interesting is that they couldn't find any background information in local public records, so the experts had to turn to other law-related institutions.

In the last segment, a series of interviews summarised the process of Indigenous consultation conducted by the Department of Education. We also shared details on a documentary called *Kre-Chenen* that delves into the acts of aggression and humiliation affecting the people of Tierra del Fuego. Fortunately this unhappy episode is now behind us, but it

is important for the Magellanic community to know the horrors that our ancestors were forced to endure.

I am always looking forward to doing different things, but, of course, it is hard work to find new points of view. In any case, the broadcasting time-frame was tight: indigenous issues open up a very broad subject so we tried to focus on particular topics. We discussed and explained concepts and vocabulary, for example, geographical (north/south/east/west) topics in both Kawésqar and Spanish. These segments were recorded with music. Probably the most entertaining moment was recording new music. First, we used the spoken word so as to breathe new meaning into the song: two female singers chanted high and low-pitched Kawésqar verses and words. One of the interesting facts I discovered in the process was that my grandmother Margarita Canales was a singer. Then I thought, 'that's why it is so easy for me to write songs!' It was an emotional moment when I heard the songs and understood exactly what I wanted to accomplish: this initiative enabled us to discover new aspects.

In a second stage, the project proposed broadcasting the show in public schools. Activities took place in the school Escuela Hernando de Magallanes for girls and boys in second grade and a few students in eighth grade. In a twenty-minute session, we were able to educate students on the basics of Kawésqar culture. We subsequently carried out a series of interviews with the girls, boys, and a few teachers, and following the interviews, many told us they were grateful for our visit. The students were happy to discover traditional hunting and agricultural tools and utensils. We answered their questions clearly and playfully, so they could understand how these tools were used.

In an additional outreach activity, we visited a kindergarten called Bambi during national indigenous peoples' week and worked with the school staff to organise a three-day project. First, a puppeteer narrated the story of a Kawésqar child called *PETAYEM*. The second day was dedicated to face painting, so the children could learn why the Kawésqar followed this practice through *PETAYEM*'s voice. Lastly, the children glued pieces of paper and wool to hand-made animal figurines. These works were displayed while *PETAYEM* asked the children questions in order to summarise the activities of the previous days. The very last activity involved shadow puppetry as *PETAYEM* told the story of a Kawésqar family and how they taught children their customs and traditions. The final exhibition presented the students' works to their parents. One of the teachers said in an interview that it had been a very stimulating for the children to learn about the Kawésqar people, and suggested that we repeat the experience in the future.

The interviews were dealt with from different angles. As an example, there was a whole team of people behind the interviews with senior academics: a technician, an interviewer, and an assistant to coordinate the logistics (time, place, equipment, etc.). Mr Exequiel Arancibia Santander, a retired air force officer who worked in Puerto Eden between 1967 and 1968 (where he met our parents and grandparents), kindly accepted our invitation to be interviewed on site. He came all the way from the Chilean north to share the story of how he met my father, Carlos Messier Canales. My father was seven or eight years old, an orphan who was being raised by other Kawésqar families. At that time, Mr. Arancibia was eleven or twelve years old and he remembered my father as a lively, respectful, and collaborative child, an eager learner. Years later they met

again in Punta Arenas (Plaza Muñoz Gamero), and my father had become a plumbing technician. It was very moving to hear his story.

The project also included an educational quiz on Kawésqar culture. The first question addressed geography. Kawésqar territory spans from Golfo de Penas to both sides of the Strait of Magellan; it includes the southern part of the Aysén region and a large part of the Magallanes region all the way down to the Strait. 'Western Patagonia' gives way to a maze of islands, inlets, fjords, and a rainforest that becomes less dense toward the Pacific Ocean. This unique setting enabled the Kawésqar people's nomadic lifestyle.

In the first program, we explained how the Kawésqar territory was organised. The YÁUTOK's channels, landscapes, and coasts are very different from the areas near the Pacific Ocean. Some stretches have steep coasts and cliffs that plunge right into the ocean, leaving no space to tie up boats, as is the case for the western side of the Messier channel, near the mouth of the Adalberto channel to the entrance of Angostura Inglesa. Generally, the *jáutok* beaches are stony and narrow. In MÁLTE, trees are sparse, there's peat moss, and vast plains inhabited by all kinds of birds. For the most part, there are large fine-sand beaches that go as far as the eye can see. There are many islets and islands surrounded by sandy beaches. There are strong, big waves going into the land facing the open sea.

Once this information becomes available to the audience, we begin by asking specific questions, such as 'where is *yáutok* located?' or 'what's the name of the show?', to which they could answer '*AFSÉSKTA TÁWON KUČELÁKSO*' or '*CONVERSAR CON UN AMIGO*', both of which are correct. At the end of the show, we announce each of the six winners' names and award them special prizes. It is an enormously satisfying way of promoting culture within the Magellanic community.

Above all, the interviewees' academic contribution is much appreciated and highly valued. There are always new ideas that can be further explored: it is only a one-hour show, which motivates us to continue performing this work. This project of intercultural dialogue is a living form of heritage by sharing activities of the different native groups in Magallanes and Antarctica, both nationally and internationally.

People are always willing to collaborate in a show on cultural topics, but there are very few people belonging to an indigenous group that actually benefit from the show. The fact that two women of Kawésqar descent are leading this initiative always attracts a great deal of attention, as well as the fact that we are using the radio to keep the Kawésqar culture alive. Radio is, today more than ever, a necessary space for culture.

Our contribution will intensify with ongoing dissemination of information, by using the Internet and other means of mass communication to reach large audiences in both urban and rural areas. It is also important to reach the international community. Understanding other cultures comes from speaking the same cultural language in order to reflect on how the original peoples have spread throughout the world, how they survive these days, how they keep their traditions alive, how some cultures have been practically exterminated, how to preserve their legacy for future generations, how to recover ancestral sites, and how to focus on innovation in radio by sharing experiences lived by our elders, parents, children, grandchildren with the local, national and international community. For instance, internet radio can reach the whole world.

In general, little is known about the Kawésqar culture. We are aware that migrants from other cultures that live in the Magallanes region do not necessarily know how the Kawésqar lived in the past. They also may not know how the current generation wants to keep their traditions and customs alive, which is mostly taught in public and private schools, and therefore we attach great importance to Patricia Messier Loncuante's contribution to the Kawésqar culture.

In the future, I'd like to work on a permanent radio show, to address interesting topics from different perspectives and to promote the values our parents taught us, which is a major aspect of the Kawésqar culture, such as respect for elders and concern for the community and for nature.

Reclaiming Cultural Identity

Often, young people don't realise the importance of the values inherited from our elders. With the death of a parent, we are forced to shape a vision of our own. I can still remember my father, his preference of certain food items, his complete and utter respect for nature. We often took long walks as a family; I was only three or four years old. When my father came home from work, I'd say, 'Father, I want to go to the country', and I remember holding my parents' hands as we walked through the fields late at night. We'd share a piece of meat and I was allowed to play freely. I was very lucky to live in the countryside surrounded by nature, without fear or any restrictions.

My dear father Carlos Messier Canales loved his culture and was very proud to be part of the last generation of expert canoers. He died back in the cold winter of 1994; his death changed me and my outlook on life. When he was alive, he used to tell me stories about his childhood, about sailing southern waters, about his brothers and sisters that he so lovingly remembered. The stories he told me about his life always made me think how nice it must have been to live like that, even as an orphan. I got a chance to hear about his hopes and dreams; he wanted me to carry on the Kawésqar canoeing tradition.

In 1995, when I joined Universidad de Magallanes, I could feel my father's presence. It may sound odd but sometimes, strange things do happen. It is hard to put my feelings into words, but I realised he was protecting me from somewhere, from a cosmic place. Perhaps it is part of the Kawésqar culture to have such a strong spiritual relationship with one's parents or those of others and community members that have passed away; it is a very powerful experience.

This memory makes me feel that I am not alone. After everything I have experienced, my commitment to culture and to rescuing our artistic heritage has only intensified. Also, my commitment to remembering how indigenous people struggled against injustice and abuse, disease, and death, which has deeply marked the Kawésqar culture.

At twenty-two years old, I became actively engaged with indigenous beliefs and worldview. I have learned many things along the way, which allows me to address very relevant issues for the future of the Kawésqar culture. Reclaiming Kawésqar identity is not an easy task. In the twenty-first-century, ancient traditions are restricted by laws that are foreign to us. In order to face this, we must look at viable projects, in cooperation with the Chilean state. Despite the limitations, some situations have improved over time.

Our main priority is to revive the Kawésqar language. To this end, training has been provided to people of Kawésqar descent so they can work at

public and private schools in the Magallanes and Chilean Antarctic region. This allows ‘traditional educators’ to teach students of the different educational levels about culture, geography, customs, traditions, and worldview.

Studying the language, customs, and traditions aims to achieve a better understanding of a culture. Although there are still many shortcomings, it is a work in process. For example, in 2018 there will be an indigenous consultation on education, an opportunity to implement good quality educational methods to support traditional students and educators in the future. This will also allow for stronger intercultural dialogue between the Kawésqar and other peoples, such as the Mapuche and the Yaghan. In this way, ancestral heritage will become more important within the educational community.

I was encouraged to research on my own origins when I learned about my grandparents. Then began an intense process of collecting family stories, names, and origins: they came from Puerto Edén, my grandmother’s name was Margarita Canales and my grandfather’s name was Pedro Messier. I first learned about my grandfather Pedro, a respected seal hunter. Through my father Carlos Messier Canales I learned about his many brothers, and that his sisters had blonde hair and big blue eyes.

My working methods have developed over the years. On my first research initiative I worked with Mercedes Tonko Paterito over four months to collect information on twelve direct families. The following year, I came up with the idea of a radio show. I believe that there is great value in recovering one’s cultural identity; the knowledge gained from our parents, uncles, aunts, and grandparents is the most precious source of ancestral wisdom and must be protected at all costs.

It is painful to witness how the understanding of indigenous issues has changed over time. In other words, we are always facing difficulties over laws created by colonisers to coerce ancestral traditions. Additionally, most of the natural habitat has already been destroyed, and it is getting harder and harder to abide by the customs of the Kawésqar people. At this time, we still have the chance to go back to our roots. We still have time to teach future generations and make them feel proud of their cultural identity.

Contemporary society must be taken into account in our efforts to recover Kawésqar cultural identity. The sense of respect and commitment has been lost over time. The way of drawing attention from the community is to get them involved in positive activities where they can learn about Kawésqar identity. Heritage is best learned from members of the Kawésqar community; no one is better qualified than a person of Kawésqar descent to share our history. My ancestors have shown me the right path, perhaps the longest, but certainly the most gratifying path.

Thus, we will continue leading a cultural resistance against the dominant culture. Our worldview remains quite different, and I believe it is because we are naturally bound to mother earth. It is painful to watch how the settlers have destroyed these mineral-rich lands and continue to deplete our forests with complete disregard for the Kawésqar people.

We can help to provide a solution: original cultures consumed food in much smaller quantities in order to preserve nature’s cycle of life.

Raising public awareness involves difficult but not impossible tasks. We demand respect for Indigenous customs and traditions, otherwise we might lose our ancestral language completely, as there are very few heritage language learners left. If we go on like this, we might lose our ancestral handicrafts techniques, too.

The best way to preserve our ancestors’ customs is to keep them alive through radio shows, interviews, and ongoing intercultural dialogue. I deeply wish to have my own radio show to discuss indigenous people’s issues and cover other needs of Magellanic community. In other words, understanding other realities enables us to best serve our community.

There is no doubt that this beautiful mission requires a concerted effort to overcome certain political barriers. It will be great to see our efforts as ‘Traditional Educators’ recognised in the future. We aim at raising our culture to new heights, which will probably be a long and captivating process.

As I wrote these words from the bottom of my heart, I realised that there is still a long way to go in terms of human rights. I am hopeful that something will happen in the future that will reflect in our perception of other human beings. I wish for my values to transcend specific cultures and experiences, as I am proud of being a woman of Kawésqar descent.

Retracing the History of Tasmanian Aboriginal Shell Necklaces

Lola Greeno

‘All of the work that we’ve done in the past thirty years has put a real value on our cultural practice and we have a real story to tell.’

—Lola Greeno

Tasmanian Aboriginal Women continue to maintain their place in history, through their traditional shell necklace cultural practice. Today women acknowledge the significance of their cultural knowledge and skills, knowledge that is embedded in their shell necklaces, in the making of stories, and through their traditional shell necklace cultural practice. Today women acknowledge the significance of their cultural knowledge and skills, knowledge which has been, and is being, handed down to future generations. During the past three decades, Tasmanian Aboriginal women have organised shell necklace-making workshops in country. Through these projects, families have strengthened their links with both families and communities. Also, through major projects such as *Lola Greeno: Cultural Jewels* (2018), at the Tasmanian Museum and Art Gallery (as part of *kanalaritja: An Unbroken String*), identity and connections to country have also been strengthened.¹

In the past thirty years, Tasmanian Aboriginal shell stringing has grown from strength to strength. Since the early 1990s there has been a huge revival of Elders working with Elders and the next generation of interested makers. However, it was not until a decade later, in 2002, that Arts Tasmania developed a Shell Residency Program in the Furneaux Islands for three Elders to accompany mentors to collect shells and make new work.²

Although many of the contemporary shell necklace makers once lived on Cape Barren Island, the women who had first-hand knowledge to do

with collecting and making had acquired it via a family member. Once these women left the island to gain better access to health services and education all that changed, as did their ‘*island lifestyle*’. Most people found an opportunity to leave the Cape Barren Island once the ‘Cape Barren Island Reserve Act’ ceased to operate in 1951.³ The social change that this brought about placed a great deal of stress on the few surviving makers on the islands and elsewhere. Nonetheless, they were still creating new work and they shared their knowledge of collecting places with ‘*family*’.

Information on how to clean the interior of the shells, plus the removal of the outer coating of the shells to reveal the iridescent pearl lustre of the ‘maireener/marina’ shell, was closely held by ‘*the Island women*’. This knowledge was, and still is, guarded information. The information is protected not only to protect a family’s access to shells but also to look after the environment.

My journey as a maker began for me as a young girl on Cape Barren Island. My mother and other Elders walked on the beach and collected shells in front of our house on the beach at Prickly Bottom. We also helped friends collect shells when we were on the ‘bird island’. When we later moved to Flinders Island, we walked the beaches there to swim or to collect limpets and periwinkles to eat.

I moved to Launceston to live in 1972 to gain access to wider education opportunities. In 1992, when my children attended college, I enrolled in a Diploma of Fine Arts. At the Art School we were encouraged to tell our stories, where we come from and why the women’s cultural practice meant so much to Aboriginal women in Tasmania. Most people had only seen the historical images of Truganini and Fanny Cochrane Smith. These images showed them wearing several strands of shell necklaces in one long necklace. My response to these old images prompted me to question my mother, about how and why it was important that she carried on ‘the making’ from her grandmother. I also asked about what type shells she collected, where she collected them, and what happened to those first necklaces she first made.



Lola Greeno gathering live maireener shells on Flinders Island, 2012. Photograph: Rex Greeno.



Lola Greeno, *Teunne* (king maireener shell crown), 2013, king maireener shells on wire, 25 cm (round). Queen Victoria Museum and Art Gallery, Launceston.

A unique part of the Cape Barren Island shell necklace making was that the women gave the shells a common name—‘community names’.⁴ This created a direct connection to the fauna and flora in the context of island life. There are approximately thirty different types of shells used to make Tasmanian Aboriginal shell necklaces—and they are still used today. The makers retain the nine common names. For example, the black shell is called the ‘black-crow’, the white flat shell is a ‘cockle’, the cream shaped shell is a ‘penguin’, the tiny white shell is ‘toothy’, and the orange colour shell is an ‘oat shell’, with the smallest shell being a ‘rice shell’. A flat based shell is referred to as a ‘button’, a greyish shell is a ‘gull shell’, and the shell used in the traditional shell necklaces is the ‘marina/maireener’ shell—examples here of the shells used in necklaces are photographed and scanned by Kelly Slater.



Truganini, Full-Face Portrait, 1866, albumen silver print. Tasmanian Museum and Art Gallery, Hobart (Q177.2). Photograph: C. A. Woolley.

Prior to colonisation, the ‘marina’ shell was the only shell threaded onto kangaroo sinew and cleaned by smoking in the fire, to remove the outer coating. They were pierced with a tool made from the eye tooth of a kangaroo jaw bone to enable the shells to be threaded.

My work in recent years has developed by using big shells related to food sources in order to create new sculptural pieces. One reason for this is that we need to consider the environment when collecting ‘marina’ shells. It has been seen that the seaweed beds have been reduced as a consequence of global warming and that other invasive species are having an impact on marine life. My new collection of natural cultural material, referring to the food source, is being made from wearable material like kangaroo fur redesigned as body adornment pieces.

In my search to learn more about reviving our ‘cultural knowledge’, plus practical skills and processes, we have discovered many institutions that have developed Indigenous collections containing a number of contemporary shells necklaces. A large part of the research carried out by Ray Norman, looked into the series of shell necklaces by one group referred to as the ‘Hobart Necklaces’.⁵ These necklaces were part of a production line, people—non-Aboriginal people by-and-large—who were commissioned to harvest and string large quantities of shells. Shell necklaces labelled as ‘Tasmanian

Aboriginal shell necklaces’ were sold by jewellery shops in Hobart and elsewhere, while other people ran an export trade selling in two countries overseas—Hawaii in particular.

A private collection known as the ‘Whinray Collection’, was purchased by The Aboriginal Torres Strait Islander Commission (ATSIC).⁶ It was then housed in the Tasmania Museum and Art Gallery because of the lack of suitable storage conditions for the Cape Barren Islander community, until the island secured a suitable Community Keeping Place.

Most national institutions, museums, and galleries have redeveloped their collections and are acquiring shell necklaces and Tasmanian Aboriginal art from the 1990s to early 2000s. Exhibitions and art programs in Tasmania at this time saw major research from Julie Gough and Zoe Rimmer that led to two significant shows, which in turn helped build the value of women’s work. The exhibitions *tay-enebe* (2009–2011), *Cultural Jewels* (2014–19), and *kanlaritja* (2017) raised the profile of Tasmanian Aboriginal artists.⁷

Once the work is created and displayed, it is then sent out to influence new marketing requests reaching out from Launceston and Hobart to Canberra and beyond. The sale of Tasmanian Aboriginal art has become a source of income for commercial galleries that are interested in Tasmanian work due to development via overseas markets.

Since I made my first shell necklace, I have focused on the important family story about shell necklace making for me. I needed to know it came from my grandmother, to my mother. For me to be a part of sharing the knowledge and cultural experience is vitally important as it will influence the next two generations. It is also important for me to be telling my story to my daughter and grandchildren.

Initially I was keen to learn about how the traditional shell necklace was made, what our early women did to originally clean the shells, and how the shells were pierced and then threaded in kangaroo sinew. So, I also asked my mother how she cleaned her shells for her first necklaces. But today, we must also consider a future for our new generations, by caring for the environment of our marine life. Tasmanian Aboriginal cultural knowledge expands by ongoing research, gaining access to new information, and by being alert to the ways the world changes around us. I have recently undertaken a conversation with a science-based academic to find new ways of cleaning with latest solutions, less toxic solutions. I’m proud to be a part of many projects that change our evolving histories.

1 This solo exhibition of my work was organised by the Australian Design Centre as a touring segment of the larger exhibition *kanalaritja: An Unbroken String*, a Tasmanian Museum and Art Gallery exhibition that opened in Hobart in December 2016. The exhibition was the eighth in the Australian Design Centre’s *Living Treasures: Masters of Australian Craft* series, a biennial recognition and national tour of an iconic artist whose body of work epitomises the best of various Australian craft fields. ‘The overarching theme of *Lola Greeno: Cultural Jewels* is storytelling: of the meticulous crafting of stories of cultural knowledge, natural beauty, ancient traditions and connectedness with her island home. It is also an exhibition of modern issues, featuring contemporary sculptural works that are part of Greeno’s response to her concerns for the environmental future of shell stringing in northern Tasmania. *Lola Greeno: Cultural Jewels* features breath-taking works using unusual and beautiful natural materials such as echidna quill, feathers, rare Maireener shell and bone, and also features interwoven digital and audio displays.’ ‘Lola Greeno: Cultural Jewels’, Tasmanian Museum and Art Gallery, accessed September 12 2018, https://www.tmag.tas.gov.au/whats_on/newsselect/2018articles/lola_greeno_cultural_jewels.

2 Catherine Murphy, *Heartwork: Great Arts Stories from Regional Australia* (Port Adelaide: Regional Arts Australia, 2004), 58–59. *Purrelayde* was designed for Elders to work with other Elders, or younger women to teach the traditional methods of collecting, cleaning, and piercing shells prior to threading, and how to develop shell pattern for the necklaces with the first groups participating. In 2002 Arts Tasmania launched a new residency project devoted to assisting Senior craft women to work with shell-necklace makers to pass on the knowledge of shell stringing tech-

niques and processes to younger women. New mentorship programs are being developed in Tasmania today.

³ Today the residents of Cape Barren Island consist of an Aboriginal community of approximately seventy people. Most of the residents are descended from a community of mixed descent (European and Aboriginal people) who had originally settled on several smaller nearby islands but relocated to Cape Barren Island in the late 1870s. The Colonial Government of Tasmania established a formal reserve in 1881 and commenced providing basic social services to the community. By 1908 the population had grown to 250 people. More active government intervention began in 1912 with the passage of the *Cape Barren Act*. The stated purpose of this act was to encourage the community to become self-sufficient through both incentives and disincentives. Government visits throughout the 1920s and 1930s reported poor health and education and proposals were made to remove children from their parents, ostensibly for their own benefit. Under threat of losing their children many families relocated to mainland Tasmania. By 1944 the population had fallen to 106. From the 1950s the government did indeed remove children from their parents. This forced removal of children was part of a wider policy implemented in many parts of Australia and over a number of decades that resulted in the phenomenon known as the ‘stolen generations’. From the 1970s a series of changed government policies were implemented that provided increasingly greater recognition of the personal and social rights of individuals. On May 10 2005, the government released Crown lands on both Cape Barren and Clarke Island to be overseen by the local Aboriginal association. This marked the first official handover of Crown land to an Aboriginal community in Tasmania. ‘Cape Barren Island’, Wikipedia, accessed September 12 2018, https://en.wikipedia.org/wiki/Cape_Barren_Island.

⁴ The Furneaux Island Aboriginal Women of shell Stringers creative their own common names for their shells they used in their necklaces. These common names are the shell that resembles a bird or cereal by the colour or shape.

⁵ On my blog, I posted a piece titled: *Induction to Tasmanianess*, from a paper by Ray Norman, presented at the Oceanic Passages Conference, Hobart, June 2010, CAIA—University of Tasmania: ‘Along with the Thylacine extinction story, apple symbolism, convict narratives, Huon pine furniture and boats, Lake Pedder and wilderness photography, forest protests, ‘Jimmy Possum’ chairs, stories about giant squid, enormous crabs, abalone, mut-ton birds and more, Tasmanians claim these shell necklaces—Hobart cum Truganini necklaces—as ‘theirs’. Unquestionably, shell necklaces figure large in Tasmania’s cultural imagination—and for the Tasmanian Aboriginal people, they are emblems of their cultural continuum.

‘New Tasmanians’ need to know about these things before they can begin to make sense of their new home. Inevitably these iconic shell necklaces along with the Truganini story will be quietly explained in the induction process. These are the kind of stories that one needs to have explained to you on an island with complex histories under almost every rock.

The story that is not told however is a century old one about the theft of an ‘industrial quantity’ of shell necklaces; necklaces like Truganini’s; necklaces sometimes called ‘Hobart Necklaces’. There were 100 dozen shell necklaces stolen from onboard the ‘Westralian’ berthed at the Hobart Wharf on April 2 1907. John Ward, a wharf labourer, was found guilty for having:

‘stolen, or otherwise [receiving], a large quantity of shell necklaces consigned to a wholesale firm in Sydney by Mr. Paget, fur dealer, Elizabeth Street. At [his] previous trial the prisoner pleaded not guilty, and the jury failed to agree as to a verdict, whereupon the accused was remanded on bail, to be retried. On this occasion John [Ward] again pleaded not guilty, and was defended by Mr. Harold Crisp, the Solicitor General (Mr. E. D. Dobbie) prosecuting for the Crown.’

—Hobart Mercury, May 20 1908.

The robbery itself alerts us to the scale of the shell necklace trade going on out of Hobart. This robbery was no trivial affair. Ward’s trial alerts us to the fact that these necklaces had been produced commercially and in large numbers, indeed by the thousands, and for some time. The robbery also alerts us to the fact that John Paget was not alone as a trader in shell necklaces. Given the tens of thousands, hundreds of thousands possibly, of maireener shell necklaces produced commercially as ‘Hobart cum Truganini Necklaces’ it seems that it is now the case that any such necklace without strong circumstantial evidence to back up Aboriginal provenance needs to be regarded as having ambiguous Aboriginal authenticity. Indeed, this is the case for a great many of these necklaces in museum collections around the world—even the one from the Exeter Museum returned to Tasmania in 1997 and an unknown number in Tasmania’s museums. At the time these necklaces were collected different imperatives and sensibilities were in operation. In the end curators can only work with the best available information to hand. This shell necklace ‘industry’ not only exploited the cultural knowledge of Tasmania’s Aboriginal people but also the shell resource they alerted them to. Below the waterline in southern Tasmania it seems that kelp forests were ‘clear felled’ out of sight and out of mind. These shells were harvested by the bucketful over a long time. In many ways this harvest is analogous to the clear felling going on right now in Tasmania’s old growth forests on land.

Ray Norman, ‘Inductions Into Tasmanianess’, *Truganini Necklaces* (blog), June 19 2010, <http://truganininecklaces.blogspot.com/search?q=thylacine>.

Ray Norman is an artist, metalsmith, networker, independent researcher, cultural theorist, cultural geographer, and a hunter of Deep Histories. Ray is Co-Director of zingHOUSEunlimited, a lifestyle design enterprise and network offering a range of services linked to contemporary cultural production and cultural research. Roles: Researcher, Designer and Maker, Graphic Design and Web Design Facilitator. Ray is also engaged with the

rugby institute as a cultural geographer. That institute's vision is to be a network of research networks and to be a diverse vehicle through which place oriented scholarship and cultural endeavours can be acknowledged, honoured and promoted. For more on Ray please visit: <http://raynorman7250.blogspot.com.au/>. In 2013 with Professor Bill Boyd, Ray co-edited COOLABAH, an online journal emanating out of the Australian Studies Unit at Barcelona University.

6 John Whunray is a photographer, researcher, botanist, and environmentalist who lives on Flinders Island.

7 *tayenebe* opened at the Tasmanian Museum and Art Gallery on July 4 2009 and toured nationally during 2010 and 2011, funded by Visions Australia. 'Tayenebe', Tasmanian Museum and Art Gallery, accessed June 19 2018, <http://static.tmag.tas.gov.au/tayenebe/tayenebe.html>. *Kanlaritja: An Unbroken String* celebrated the unique practice of Tasmanian Aboriginal shell stringing. This national touring exhibition featured stunning shell necklaces created in the 1800s, alongside necklaces from acclaimed makers of today and a new wave of stringers who learnt the tradition at cultural renewal workshops. It was on show at the National Museum of Australia from August 10 to October 3 2017. 'Kanlaritja: An Unbroken String', Tasmanian Museum and Art Gallery, accessed June 19 2018, <http://kanalaritja.tmag.tas.gov.au/>.

Vínculos tejidos entre sur–sur Woven south–south links

Josefina de la Maza

Patricia Messier Loncuante and Lola Greeno's accounts are complex stories of colonial intervention and indigenous cultural and environmental loss. They are, also, beautiful and touching examples of how—through a delicate, attentive, and resourceful look to one's own past and history—it is possible to mend a social fabric that started to deteriorate time ago. Both women are part of a long collective chain woven through local migrations, displacements, and encounters of indigenous and settler stories. For Messier Loncuante and Greeno, looking back to their past, to the land, and particularly to the sea, is a spiritual and physical voyage that allows them to reconnect with the lives of their ancestors. Either in Tasmania or in Southern Chile, mothers, grandmothers, and aunts appear as strong presences: female bonds allow the passing of cultural and traditional knowledge.

The cultural knowledge that Messier Loncuante and Greeno refer to are basket weaving and the making of shell necklaces. Both techniques and cultural practices involve patient hands, curious eyes, and a deep connection between nature, heart, and mind. They also further the telling of stories. Through the manipulation of fibres and shells and thanks to the quiet rhythm that results from all the stages of artisanal work—and some of them include heavy and tiresome activities—tales that portray the elders and the nature surrounding them take shape. Making objects could be portrayed, considering how Messier Loncuante and Greeno have approached their practices as traditional artisans, as the opening of a portal that allows the rich and marvellous encounter of hand and tongue.

Oda a Ivette

Ode to Ivette¹

Camila Marambio

*Manjar a cucharadas,
café sabor vainilla,
los placeres intachables
de la experiencia,
sin edad.*

*Dientes a la vista,
ceño fruncido,
mirada sigilosa,
cuéntate un cuento
largarte una risotada,
alguna de tus verdades,
tanto testamento.*

*Maestra,
de un castellano refinado,
y garabateado,
sobre todo, en la cocina
donde la olla de fideos
alimenta al compañero
al bueno
y al malo,
discriminando
cuando se haga saber
su deseo.*

*Tú, que me acogiste
y que hasta plata me entregaste,
sabes que atesoro
la Tierra a la que me vas llevando.*

*Allí,
donde encontré mi origen,
como bicho reintroducido,
cual castor,
me arrodillé.*

*De domesticidad compartida,
esta Doña Flor y sus dos maridos
une el sur y el norte,
el negro y el blanco,
el futuro y el pasado,
así ningún valor es absoluto,
todo es sentido*

*a discutir,
empinando
una lata de cerveza.*

*Madre de abogado,
abogada de muchas madres,
hija de su madre,
madre de mis hijas.*

*Lider del Partido,
deportista de lo extremo,
empeñosa de la ley
guardiana del bosque,
armada de valor
tu derrocas al que se cree,
al que se pasa de la raya:
¿no vieron los alambres de púa?*

*Los pingüinos, los alerces,
los Selk'nam y sus bosques,
todos ellos soberanos,
dignos de la devoción
de esta Juana.
Mujer de arquetipos,*

Spoonfuls of sticky toffee,
vanilla-flavoured coffee,
the unrivalled pleasures
of settler experience,
age-less.

Gnashing teeth,
worry lines,
vigilant gaze,
tell me a tale
cackling,
share your truths,
testaments of contradiction.²

Teacher,
of refined Spanish,
swearing,
above all, in the kitchen,
where the bottomless pot
feeds the comrade,
the good
and the bad,
discriminating
evidence
of desire.

You, who brought me up
and even endowed me,
know that I treasure
the Land you lead me too.³

There,
where I found my origin,
a re-introduced critter,
beaver-like,
I knelt.

Living communally,
Doña Flor and her two husbands
straddles north and south,
white and brown,
past and future,
no-thing is absolute,
sensing

and up for debate,
knocks back
a beer can.⁴

Lawyer's mother,
advocate of women,
daughter of her mother,
mother of my daughters.

Leader of the Party,
extreme sportswoman,
legally diligent
custodian of the forest,
armed with your courage
you throw out the imperialists,
the ones that grab for more:
did they miss the barbed wire?⁵

The penguins, the larches,
the Selk'nam and their forests,
all of them sovereign,
worthy of the devotion
of this Jean.
Archetypical female,

*Afrodita, Artemisa, Atenea, Hestia,
fiel amiga.*

*Cuando te conocí
no teníamos ninguna casa,
hoy vamos sumando
saberes y placeres,
techos y techumbres,
carpas y mochilas,
calcetines y mapas.*

*¡Que atractivo!
Esa curiosidad,
avidez de justicia,
tenacidad inagotable,
lucidez de lingüista,
y esas pantorrillas de porteña.
Jamás te vi cansar.*

*Festejadora de lo distinto,
del saber,
de la astucia del pueblo,*

*de la agencia del viento;
Sabe
que la sensibilidad de Don Cata,
brilla por sobre los helicópteros de
Don Douglas, cuya avaricia enmascarada,
sangre derramó.
Herida patriarcal supurante.*

*Las élites llegan en barco,
miran sin ver.
Se les encoje el hombro
y tú: nada que ver.
Pero doblemente generosa,
todo gato tiene en ti un hogar.*

*Dirigente,
la sigo.
'Vaya usted', me dice.*

*Gracias por esperarme,
por dejarme caminar tras suyo,
por escuchar
mis pesares
y pensares,
entretener mis dudas;
infatigable consejera.*

*La que empaca poco,
sabe viajar.
Poca queja, mucha acción.
Buena memoria,
lleva a la oportuna decisión.*

*Caleta María,
nos desvela:
atentas al entusiasmo
al ensueño
a la pena
por ocupación.*

*Esa, tu lucha, mi lucha,
una lucha desarmada,
una lucha nómada,
finita e infinita,
de alta sensualidad.*

*Ágil, flexible,
mentalmente acuciosa,
incisiva.
Perspicaz,
desprejuiciada.
Al trote,*

Aphrodite, Artemis, Athena, Hestia,
loyal friend.

When we met
neither had a home,
now we sum a collection of
wisdoms and pleasures,
roofs and ceilings,
tents and backpacks,
socks and maps.

What allure!
The curiosity,
the longing for justice,
the inexhaustible tenacity,
the linguistic lucidity,
and those calves sculpted by the hills of Valparaíso,
none of which I ever see tire.

Celebrant of difference,
of know-how,
of popular ingenuity,

of the agency of the wind;
she knows
that the sensitivity of Don Cata
shines brighter than the helicopters
of Don Douglas, whose masked greed
has shed blood.
Festering patriarchal wound.⁶

The elites arrive by boat,
looking but not seeing.
Their shoulders cringe
and you: shrug.
Twofold generosity,
every cat finds a home in you.

Chief,
I'll follow.
'You go', she says.

Thank you for waiting,
for letting me walk beside you,
for listening
to my sorrows
and conclusions,
entertaining my doubts;
tireless counsellor.

She who packs light,
travels well.
Few complaints, abundant action.
Good memory,
opportune decision making.

Caleta María,
keeps us vigilant:
of zealous enthusiasm
of giddy enchantment
of grief
by occupation.

Your battle, my battle, the battle,
an unarmed battle,
a nomad battle,
finite and infinite,
highly sensual.⁷

Swift, flexible,
thorough,
incisive.
Insightful,
judicious.
Jogging,

vamos hilvanando.

*Cruzando continentes a pie,
conversando con silencio,
desde Alaska a la Patagonia,
nada que temer,
hasta llegar.*

*Fiel
Fiel
Fidel*

*Sigamos manejando,
por el camino que se construye,
que ya llegó,
que todo lo cambió,
que, a pesar de haber llegado,
supiste adelantar,
para que, al cortar la cinta,
no se les fuera coronar
el seno con el título de Reserva Marina.*

*¿A dónde vamos ahora?
¿A dónde llegaremos?
¿Sabremos llegar?
¡LLEGAMOS!
Ahora a trabajar.*

we suture.

Walking across continents,
conversing with silence,
from Alaska to Patagonia,
fearing not,
until we get there.⁸

Fiel
Fiel
Fidel

Let's keep driving,
down this road that's being built,
that has arrived,
and changed everything,
and that despite its coming,
you knew to get ahead,
for when the ribbon was cut,
they would need reminding to crown
the fjord with the title Marine Reserve.

Now where to?
Where will we arrive?
Will we know how to make it there?
WE ARE HERE!
Now to work.⁹

*

1 It struck me that before we headed, once again, to Caleta María, to shoot *DISTANCIA* in December 2017, I was going to need to recite to Ivette what it is about her and her settler relationship to Caleta María that animates the first season of the web series. As I asked myself how to deliver such a report, I considered the ode and looked into the *Selected Odes of Pablo Neruda*. Here, the translator, Margaret Sayers Peden, states:

Exuberantly, his [Neruda's] odes exalt their subject matter. But they are not characterised by an elevated style; it is here that a Neruda poem consciously differs from its prototype. Neruda's odes glorify the ordinary and the everyday, with little or no bow toward transcendency or ontological inquiry [...]. Perhaps more than in any other of Neruda's works, it is in his odes that we see his physical absorption of the world, his consciously anti-intellectual manner of perceiving reality about him (Neruda 1990, 3).

I disagree with Peden on the issue of a lack of transcendency, for I believe that Neruda's *Odas*, much like New Materialist philosophy, complicate the binary between the discursive and the elemental by emphasising a materialist approach to the ontological question of the 'nature of nature' (Barad 2007, 42)—nonetheless, I am indebted to her translation effort. It was her observation of how Neruda 'reiterates the word *cantar* throughout the odes; "singing" this poetry as odes were sung in ancient times' (Neruda 1990, 3) that inspired me to take up singing to Ivette and eventually to translate this song as a way to render my observations into a reaffirmation of her own movements, in the hopes that my celebration of her would allow her to casually continue to dance to Caleta María's rhythm in front of the camera and breath air into the Chile that she has taught me to see.

Peden quotes Neruda's claim that 'Chile was invented by a poet' (3) and I kept this in the back of my mind while walking the circumference of the Native Grass Circle in Royal Park, Naarm Melbourne as I recorded myself singing *Oda a Ivette*. Later, as I typed it out, edited it, and then emailed it (both audio and text) to Ivette, I thought 'Chile is still being invented.'

Thanks to my iPhone 5 and its numerous apps, the thousands of kilometres that separate so-called Terra Nullius (Australia) from so-called Terra Incognita (Tierra del Fuego) are squashed, and Ivette (like everyone else involved in *DISTANCIA* who, after her, also received an ode from me) heard my song while in Karokynka. Contemplating this physical distance now, I drift towards deep-time fantasies of the Mesozoic era during which South America and Australia would have been one continent, Gondwanaland, and I recall how it was in listening to the songs of Selk'nam elder, Lola Kiep'ja, and then reading their translation into Spanish by Ángela Loij that I first learned of the ancient earthquake that made Karokynka Tierra del Fuego distinct from the mainland. Kiepja's oral knowledge is to be found in the *Selk'nam Chants of Tierra del Fuego, Argentina*: a selected sample of the anthropologist Anne Chapman's field-recordings which include forty-seven chants sung by Kiep'ja (Chapman 2003). The power of song to constitute images and create binding relationships between people and country was strong then, as it is now. Who gets to record songs and distribute them, however, is a contentious and shifting debate.

In Maria Esther Grebe's *Ethnomusicology* review of Chapman's recordings, she insists on describing Kiep'ja as 'the last Indian shaman of the Selk'nam of Tierra del Fuego', and categorises Record I as containing '16 shaman chants' and Record II 'as gathering a variety of brief pieces: 17 shaman chants, 1 war chant, 10 laments, 1 lullaby, and 2 religious chants learned in a Salesian mission.' (Grebe

1974, 173) I'll quote Grebe at length here, because her clarifications of this intriguingly obtuse catalogue disclosed two fundamental facts about Chapman and Kiep'ja's relationship to me; a relationship that has troubled me for years and that has in many ways been the back drop for my attempts to enable creative processes that enact a different researcher/research-participant relation (one that torques the inherent power structure and queers the 'outcomes' of research):

[T]hese field-recordings [...] supported by the Wenner-Gren Foundation for Anthropological Research and sponsored by Claude Lévi-Strauss and Gilbert Rouget [...] were made in an Indian reservation located near Lake Fagnano, Argentina, from March to June 1966; all the material was recorded in Lola's hut employing a UHER recorder at 19 cm/sec. As each chant was recorded 4 to 8 times, only the best 47 renderings were selected.

Later, Grebe adds: 'although the technical quality of the discs is good—but not exceptional—its material constitutes a valuable primary source of high significance for both anthropological and ethnomusicological cross-cultural and area studies.' (173)

Until reading this, I had been unaware of who had financed Chapman's research. I knew Claude Lévi-Strauss and Gilbert Rouget had overseen her work, as her Ph.D. advisors, but had not given much thought to the fact that the recordings were pre-destined to be anthropological material, nothing more, nothing less. What use, if any, could such anthropological material have had for Kiep'ja? Though Chapman states that Kiep'ja 'especially enjoyed singing ancient chants for me to record, and to hear her voice played back on the recorder', and that Kiep'ja also 'seemed pleased to have someone with whom she could share her memories of all that had disappeared' (Chapman 1982, 4). I can't avoid feeling that Chapman's valuable recordings of Kiep'ja are a product of cultural extractivism.

Before now, I had also never given thought to what specific technology was used to record Kiep'ja's voice. It is possible that I have become more sensitised to this issue since having returned from filming the first season of *DISTANCIA*; having witnessed the many ways in which specific cameras and recorders changed hands between crew and non-crew, and how this significantly transformed the relationships of all of those involved. As far as it is known, Kiep'ja was always on the recorded side of the UHER, she did not own a device herself, never operated it, and did not commission its use in recording her songs. Chapman introduced her to this technology, as the tool of her own trade, and as such it gave Chapman the upper hand. Chapman was scavenging for anthropological material, which she accrued and then delivered to the body funding her investigation.

This raises another question: What are the tools of my trade? Is my iPhone my tool, or is it my voice, my discursivity, my writing, or my transnationality? If translation were my tool, what powers does it bestow me with? And furthermore, do I own what I know? Or, are my tools relational and therefore subject to circumscription as collective tools?

Despite being brought up bilingual, I've never been particularly good at translating text from Spanish to English or vice versa. In fact, I'm awful at it. I get lost in the question of semantics, I fumble to choose specific words, and I often distort texts almost beyond recognition. Owing this shortcoming, I should specify that when I declare translation

as my tool, I am referring to a different type of translation, maybe it is more to the point to call myself a storyteller. No more am I interpreter than I am a creator. Instead I swing somewhere in between, becoming a vessel for other voices, for experiences that lie beyond my own, that touch me and that I offer to carry. As a carrier I am not empty, but I am well versed.

*

2 Grebe also wrote that the notes accompanying Dr Chapman's recordings offered a comprehensive ethnographic document, which described general characteristics of the Selk'nam culture, 'including some demographic, economic, social, religious, and linguistic data; Lola's biography and personality; a description of cultural contexts of chants; fragmentary translations of song texts; and were complemented by cantometric analysis by Alan Lomax.' (Grebe 1974, 175) However, she noted an absence among this material. The 'English translations of song-texts', she wrote, 'do not include the corresponding texts in Selk'nam language.' For Grebe, 'a transcription of the texts in parallel columns in both native language and placing the explanations as footnotes, would have increased its (the recordings) methodological accuracy and reliability, avoiding at the same time a lack of clarity, meanings, and symbolic connotations.' (175)

*

Coming to terms with the responsibility of the act of translation, I am attempting, through these 'notes', to clarify and reference my *Ode to Ivette* for the reader. Since I was the one who suggested to Ivette that we televise her trials to defend Caleta María from State abuse, I am faced with the task of enabling a transmission process that captures the amplitude of the symbolic connotations of her struggle. Curating is a practice of recasting, of adaptation, of elucidation, of translation. Academic translating, however, has its specificities and confronts me uncomfortably with my desire to challenge established meanings, to move away from clarification and towards the unseen spirit of things and words. My own inclination is towards transmutation, and ultimately, I covet mysteriousness and cultivate the principles of uncertainty, but in translating somebody else's story this personal drive has to be disclosed, if not suspended. On the issue of the difficulty of translation and of attempting to stay truthful to Neruda's odes, Peden says that she followed four commandments: (1) respect simplicity; (2) respect sound; (3) respect sense; and (4) respect shape. Though later she adds that in some ways, 'respect meaning' should come before any other commandment:

While one may often be tempted to tip the scale toward musicality, many of the odes are mini-narratives—some diatribes, some propaganda, some declarations of love, or scorn. Even those that recount an instantaneous experience or mention, have some aspect of 'telling.' Content is important and it is the translator's obligation to render that telling as accurately as possible. (Neruda 1990, 3)

Oda a Ivette is a curatorial gesture rather than a poem for public exposure, but nonetheless I had it professionally translated. This was an exercise in outsourcing the solution to the problem of translation that I simultaneously counteracted by annotating it extensively. This last move is my attempt at dealing with the challenge that underlies accuracy:

intentionality. These 'notes' to the English language version of the ode are therefore an effort to highlight not the literal meaning of the words, but the why of why Ivette's story matters. The feminist theoretician Rosi Braidotti affirms that we simply need new forms of literacy in order to decode today's world. Theory, she says: 'is corporeal, bodily, literal, figurative not metaphorical. One cannot know properly, or even begin to understand, that towards which one has no affinity. Intelligence is sympathy.' (Braidotti 1994, 109)

*

Just as I ask the reader to pay attention to the curatorial nature of the relationship between Ivette, Caleta María, and myself, I too have been training to listen for signs of the nature of Chapman and Kiep'ja's connection, aiming to identify the quality of their relation. Sensing that this is perhaps the most telling fact to be retrieved from Chapman's work, I attune to signs of Chapman's motivations and beliefs as a way to peel off a layer of inscription that I feel obscures Kiep'ja.

During these past two years my academic research has led me, time and time again, back to the question of what gets 'lost' in translation, especially in translating from the oral to the written. I have focused on the relaying of the so-called 'myth of matriarchy'—the 'secret' that it was Selk'nam women who originated and practiced the cultural ceremony (first termed Kloketen and now usually referred to as the Hain) before it was co-opted by men. Striving to reinterpret the ceremony from a 'feminist' perspective, Chapman, who also studied the subject and reviewed the treatise and photographs of the ceremony by the ethnologist Father Martin Gusinde (Gusinde 1991), took the liberty of changing the name given to it by Gusinde, Kloketen, to Hain. Though the strength of Chapman's scholarship is that she consulted with Kiep'ja (and later Loij) on the matter, she never bothered to transcribe Kiep'ja's Selk'nam words, and this troubles me. So, I listen for the interstitial moments in which Chapman speaks to Kiep'ja and try to discover what their conversation sounds like when the roles of anthropologist and 'subject' are breached, if they are at all. I discover that when they become Anne and Lola, they often laugh, which I suppose confirms that they did enjoy each other's company. Chapman has written that on walking down Lola's street she frequently found Lola outside her hut, waiting, expectantly, as if eager to spend time with her. Certainly, Chapman's interest in Lola Kiep'ja is well documented: in the numerous books she dedicated to her and Loij, in the two films she made during her field work (one of which denounces the Selk'nam genocide), in the picture taken not long before Anne's own death, in the living room of her apartment, where the most prominent object is a large photograph of Lola's elderly face hanging on the wall (the same picture that adorns the cover of Chapman's last book 'The End of a World'), and finally in the poem, *Memory of Kiepja* (Chapman 1988), that I found on Chapman's website only weeks after having written *Ode to Ivette*. In all her books, her films and even in her poem, however, Chapman insists we mourn the loss of Selk'nam culture, most problematically inscribing the 'end' of an indigenous culture (Chapman 1974). This is where I differ. Chapman is invested in the colonial 'myth of loss' and I in the action of regeneration. I acknowledge the loss that occurred and by all means think we need to denounce the State massacre of Selk'nam people, but I believe, and whole-heartedly invest in, the project of upturning our notion of objectivity to regain at least what was (purposefully?) lost in translation and

of doing this in the name of the decolonisation of Karokynka. To achieve this, I listen to Kiep'ja's chants: repetitive and resonant, Kiep'ja's nasal singing is like a solemn cradle song. Building up with fast and slow attacks, sharp and long envelopes, the sound of Kiep'ja's voice, steeped in an ancestral dialogue—a call and response—creates an iterative, trance-like momentum. But what is she saying?

Academically, I am often asked to take a position on Chapman and Gusinde, to argue for or against their research methodologies, to be clear about who and what I identify with. But, acknowledging my *mestiza* heritage, I choose to inhabit the border and engage critically with contradicting parts of my own identity (Anzaldúa 1987), applying *othered reasoning* (Majaca and Parisi, 2016). This entails the implementation of instrumental thinking, of actively exploring recording technologies to regenerate memory. Picking at Chapman and Gusinde's research is not undertaken as a way to inscribe myself within the canon of white Western academics; I have no desire to position my theories and experience in concordance with or opposition to theirs. I do, however, strive to challenge my own understanding of Karokynka Tierra del Fuego and self-consciously, performatively identify with alternatives that include the use of instruments and techniques that broadcast generational sounds, images, discourses co-produced with Ivette, Carolina, forests, roads, sound recorders, cameras, drones, all animated by the vitality of Karokynka, Selk'nam country.

I am not a native Selk'nam and neither is Ivette. My siding with Ivette and her settler story, in the first season of *DISTANCIA*, is a way to collaboratively work through our unconscious moves to innocence (Tuck and Wang, 2012): As an eco-activist Ivette sympathises with indigenous struggles but 'performing sympathy' or in my case, performing 'environmental education research', still imbricates us in settler-colonial narratives, meaning that we sometimes ignore the settler colonial contexts where we work and reside (29). This is not an easy thing to confess, but we must. And here I agree with Tuck and Wang who argue that unsettling innocence requires 'an ethic of incommensurability, which recognises what is distinct, what is sovereign for project(s) of decolonisation in relation to human- and civil rights-based social justice projects (28).

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3 It has always felt utterly wrong to call Ivette an informant, and even the more politically correct term, 'research participant', falls short of our involvement.

I am neither an anthropologist nor a linguist, and she is not the subject of 'my' study. Rather, she and I and a number of others (mentioned throughout this text) have become intertwined in each other's lives in such a way that our concerns have technically mingled, at times seeming one and the same or, at the very least, simultaneous iterations of a unique impulse: environmental justice.

Ivette and I are *comadres*: co-mothering a web series and other such Ensayos inquiries. We are co-producing, co-envisioning, co-operating on the first season of *DISTANCIA*. It is not a dramatisation when I say that as I was typing these words out, I received an email from Ivette. Addressed also to Carolina Saquel, another comadre of *DISTANCIA*, Ivette was writing to tell us that she had just returned from spending some time in Caleta María with her friend, the architect, Gastón Herrera. He, who Ivette has spoken to Carolina and me about before, is helping her plot out the new lots that she

wants to put up for sale (for reasons I will soon discuss). She writes, 'on a spectacularly sunny day, he used his drone to get some fantastic shots of the territory. I would like him to send this material to you so that we can review it and consider using some of this footage in *DISTANCIA*.' This is an example of one of the ways in which Ivette is co-steering the relaying of her own story.

The new lots that she refers to in the email are the second batch of hectares that she intends to sell. The first grouping of lots were larger, fourteen hectares each. Ivette's decision to create these new smaller allotments is twofold. First, it responds to the need that she and Julio Gastón, her ex-husband, have to cover the costs of their ongoing legal efforts to protect Caleta María, territory they co-own, from the unlawful usurpation it is undergoing by the Chilean State (we suspect this is for military, mining, and touristic reasons). Second, to kickstart a project that aims at creating a larger community of invested, territorial custodians of Caleta María. For both these reasons, Ivette and Julio Gastón have set up very specific conditions regarding the possible 'uses' of the land and in the first instance they set the prices for the larger lots too high for them to ever (?) become profitable. I admit, I am conflicted by the parcelling of privatised land and the ways in which drones are being used to map difficult to reach territories—even if its use is in name of a new model of environmental care. Carolina and I deal with our contempt for this neo-colonial technology by tweaking it in post-production and suggesting it depicts an *other* perspective. We show Ivette the results and she consents.

Years ago, I proposed that Ivette consider offering one of the seven large lots to Ana María Yaconi, an exceptional woman—an educator, art historian, and philanthropist—who I had come to know through her ongoing funding support of Ensayos. The sale went through and without asking for it, in February 2017 I received a small cut of the earnings, which I immediately reinvested in *DISTANCIA*. The 1,200,000 CLP (1,829 USD) covered the costs of that month's pre-production trip to Karokynka. Meaning that Carolina Saquel, Nicolás Spencer (sound artist), and I were able to travel along the road to Caleta María and back streamlining our road-movie tactics. We hired a car, crossed the strait of Magellan, rented some sound and video equipment (most was already owned by Carolina and Nicolás) and met Ivette and Julio Gastón on the shores of the Admiralty Sound where we discussed the illegalities perpetuated by the State, shot video footage of the disturbed site, and played around with different ways of using the equipment we could afford to bring. Sources of funding shape the results.

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The second of January 2018, on the last evening of our most official filming period in Caleta María, I addressed the issue of funding sources in a presentation that I titled, *The Infrastructure of the Image*. It was nearly eleven at night, and we were gathered around the dining room table; plates had been cleared and replaced with cameras and sound recorders. The sun had just set, there was still no need for artificial light. Cecilia Vicuña and Michael Taussig had their notebooks and pencils out, attesting to their respective roles as poet and anthropologist on board our crew. Ivette—who was leaning against the old couch near the wood-burning stove, still wearing her cooking apron (her usual evening attire)—was unusually excited for that night's set of presentations. Grouped under the name 'The Construction of the Image', Carolina Saquel and Matías

Illanes, *DISTANCIA*'s director and director of photography (DOP) respectively, would also be presenting and Ivette was eager to know how Matías defined the task of a DOP; he was the newest member of the film crew and the youngest.

I sat on a tall stool, my own log book open to the makeshift budget that I had been keeping as bills and expenses began to add up during our film shoot. I had decided to start by calling out each expense, its exact amount, who had paid for it, and where the funds had come from:

Airplane tickets, 719,139 Chilean Pesos (CLP), Camila Marambio, expense covered thanks to the donation of 3,000,000 CLP to Ensayos by Ana María Yaconi. Camera Rentals and Other Equipment, 2,254,940 CLP, fronted by Ariel Bustamante, soon to be reimbursed from the aforementioned donation by Ana María Yaconi. Food and Petrol, 740,006 CLP, Ivette Martínez and Julio Gastón Contreras, paid for out of their own pockets, etc.

This went on for quite a while; by the end of it, the numbers had twisted my tongue, and I was happy to move into a more speculative discourse on how the monetary insufficiency of our precarious economy was subsidised by our affects. I cited Patricia T. Clough, who in *The Affective Turn: Political Economy, Biomedicine and Bodies* said that: 'the turn to affect points to a dynamism immanent to bodily matter and matter generally—matter's capacity for self-organisation in being informational—' (Clough 2008, 1). My aim in citing Clough was to celebrate the amazing dynamism of that week's film shoot and to reflect on how our differently abled bodies were in fact our greatest transformational capital. That week our activities had included unprecedented dancing, singing, and weeping. We had practiced a highly sensual approach to depicting contemporary Fuegian human geography; attempting to contribute to it by nurturing custodial relationships to place; and, perhaps, beginning a process of decolonising Karokynka.

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4 Planning meals for Caleta María is an activity that Ivette and I have rehearsed repeatedly. Despite our culinary differences, neither of us likes excess, so we carefully consider the weight of each fruit, the need of each individual, and all our wastes. In any case, as I stated before, our budget is limited and due to the long-distance travel to Caleta María we take precautionary measures with our food supply. Which is not to say that we don't delight in the pleasure of preparing meals: Kiko (Ivette's partner) presents us with his US-flair by making his special nutritional-yeast sprinkled popcorn; I forage seaweed, stir-fry it, and usually surprise the sceptical palate; Ivette bakes canned-fruit pies, while her son Julio Antonio makes bread in the mornings. Carolina makes wonders with left-over rice and Cecilia instructs us all on how to spice-up quinoa and lentils. Our ability to know how to be in, or should I say be *with*, Caleta María is an embodied knowing that is slowly evolving. A performative practice of collectively being Fuegian today entails fishing but also brewing store-bought vanilla flavoured coffee shipped to the duty-free port of Punta Arenas from who knows where (thanks Walmart). Contradictions are endless.

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Archipelagic entrapment exacerbates the awareness of distance. When in Caleta María, 398 kilometres

from the ‘comforts’ of the nearest township of Porvenir (despite its name meaning ‘what is to come’, as the capital of Chilean Tierra del Fuego, Porvenir can hardly be considered comfortable; with lacklustre lodgings, the town presents as a deserted place, where finding a job, fresh food, let alone a cinema are something of the past), nothing is too close, everything is too far. Yet, upon arrival, Caleta María feels like the very centre of the world. Distance is relational.

For most, this is at first an uneasy experience. Unravelling over time, for some (me included) it can turn into a passion. *Becoming* better at unfolding into the states of uncertainty aroused by Karokynka (Ugarte 2014), at wading on the borderlands of Caleta María, requires *staring* at the trouble of being so removed from comfort zones. Trouble, according to feminist scholar and historian of science and technology, Donna Haraway,

is an interesting word. It derives from a thirteenth-century French verb meaning ‘to stir up,’ ‘to make cloudy,’ ‘to disturb.’ We—all of us on Terra—live in disturbing times, mixed-up times, troubling and turbid times. The task is to become capable, with each other in all of our bumptious kinds, of response. (Haraway 2016, 18)

In my experience, through *Ensayos*, the uncomfortable practice of staring at the trouble with new and ancient technologies has given way to a repertoire of surprising, new, sensual/ethical abilities, such as: seeping through the cracks of history, seeing the dead, hearing the sorrow of the wind, feeling for the non-human by smelling their desires, telling alternate stories, unsettling one’s self, and co-creating instrumental moving-image reality. Are these then what Haraway calls *response-abilities*?

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An enigmatic shot of earth-turned-dust, momentarily suspended in the air, clouds the screen. This phenomenon, caused by a fast-moving vehicle gliding over an unsurfaced road, is a recurring moving image in *DISTANCIA*. Carolina has captured it by strapping cameras on to the back and front of the cars that drive us from one edge of the main Isle (Porvenir) to another (Caleta María).

Extending an invitation for Carolina to come to Caleta María in 2014 was easy. Finally getting there in 2016, an investment on her part. Returning, in 2017 and 2018, a shared commitment. During her second visit, one evening, after dark, I asked Carolina to present Ivette and Julio Gastón with some of her video work. On a small computer screen, we viewed a couple of her own favourite pieces (*Pentimenti*, 2007; *Cuero Vivo*, 2010). Carolina’s filmic technique has been described by the sociologist and curator María Berrios as ‘observing nature as hard material, playing with the textures, tonality and rhythm of the image, that through camera movements and perspective turn its matter into narrative’ (Berrios 2010).

After the screening, the four of us talked for hours about the excavation site that we had visited and filmed earlier that day. The heavily disturbed, scarred land is a short walking distance from the house where we sat chatting in the dark. It is the result of an illegal excavation, led by the Chilean military workforce, in search of gravel with which to continue building the very road that we had used (and filmed) to get to Caleta María. Carolina, who is both an artist and a lawyer, expressed keen interest in the legislative procedures Ivette and Julio Gastón

had undertaken (and succeeded in) to make the claim that the upheaval of that land was unlawful. Painstakingly responding to Carolina’s incisive questions, I gleefully observed Ivette and Carolina bonding.

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5 Ivette asked if she could invite the historian Alberto Harambour with us to the shoot. He was one of her master’s thesis advisors and has dedicated his academic life to unearthing the horrifying facts of the Selk’nam genocide.

Looking for mentions of murder, of State consent, and of massacre, Harambour reads the log books of the early Southern Patagonian ranchers with a fine-tooth comb. He is one of the few that analyses these atrocities, and after reading his work I was convinced he knew how to stare at the trouble. I didn’t need to be convinced that he was a good actor to have in *DISTANCIA*, Ivette’s wish to have him was enough. Though I did read some of his articles for myself and was impressed by the wealth of historical data that I had not encountered before. Today (after having launched the first season of *DISTANCIA*), however, I am baffled by the fact that during our travels together, Alberto made no mention of Hema’ny Molina or the Covadonga Ona Selk’nam community, despite his having interviewed them earlier that year. Once again, a disciplinary gaze delimits a skilled researcher. Chilling, really, the ways in which academic research facilitates cultural imperialism and colonialism. This brings to mind Linda Tuhiwai Smith’s declaration that the word ‘research’ is itself ‘probably one of the dirtiest words in the indigenous world’s vocabulary’ (Smith 1999, 1). The thought of the serial nature of *DISTANCIA* is the only respite from the uncomfortable feeling that this issue stirs up for me.

Ivette liaised with Alberto at first and then we all began a conversation over email to define how his participation would alter our usual route to Caleta María. In unison we all agreed it was important to get side-tracked and drive out of our way to visit two of the sites of Selk’nam genocide: the first sheep ranch established on Karokynka Tierra del Fuego in 1885 known as *Casa Hobbs*, and *Caleta Josefina*, established in 1894. We filmed there and we cried there too, wailed really, as a reaction to sensing and hearing of the torture and cruelty suffered by hundreds of Selk’nam men, women, and children (Harambour-Ross 2012) during the waves of extermination that took place.

Provisionally, the artist Cecilia Vicuña was with us too and since she has a practice of spinning webs around pain, trauma, and the unsayable, it was under her guidance that we ritualised those dead. We acknowledged their passing and voiced how sorry we felt.

I look forward to troubling all of this further in the second season of *DISTANCIA*.

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Ivette has taken to calling those of us *strays* who gather in Caleta María ‘The Party’, as in a political party, and sometimes she gives this Party a first name: Selk’nam. It’s a name she deploys with purpose and with respect, though recently I have become suspect of how aware she is of the weight of the appropriation?

The Selk’nam peoples inhabited Caleta María 12,000 years before us. They arrived on foot and roamed the great isle of Karokynka (the largest island of the archipelago of Tierra del Fuego), chasing after guanacos (Prieto, 2011) until the fences came up in the early 1900s. With this fencing began the

end of their world as they knew it. It is too often repeated that Lola Kiep’ja was the ‘last of the Selk’nam’ (Chapman 1977).

I have in the past argued that the trope of ‘the last Selk’nam’ undermines serious eco-political issues that urgently need to be addressed, not by insisting on ‘lostness’, but instead by devoting time, energy, creativity, money, thought, and will power to the sentiment that a Selk’nam polity was, and is still, possible. If Ivette’s Party is the political Party that honours Selk’nam culture, that commits to the complexity of being bound up in the archipelago’s human geography, and that emerges from queering kinship, then it is a party I am willing to work for. But if, as Laura Ogden pointed out to me, the trope of the ‘lost tribe’ is being used as a kind of warning (metonym) of eco-apocalypse, then I dissent from the Party.

*

In 2010, I walked to Caleta María, behind Ivette, Julio Gastón, and Kiko. They were leading sixteen of us (artists, scientists, and park rangers) over the twenty-kilometre stretch of dense bog and thick forest that had not yet been gravelled. It took us eight hours to reach the coast of the Admiralty Sound and before descending the last peak to Caleta María, I remember rhetorically asking: ‘What are we hunting for?’

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6 There are things about Ivette and Caleta María that won’t be disclosed in the web series. *DISTANCIA* is not a documentary, it does not attempt to mirror reality, it is not invested in sameness or scientific fact. *DISTANCIA* is a short-form web series that attends to what the physicist Karen Barad calls *diffraction* or patterns of difference (Barad 2007). By disrupting linear narrative to embrace a playful interpolation of numerous points of view, *DISTANCIA* performs a way of being in Karokynka, a drifting-being. As I mentioned earlier, even in these very ‘notes’ to Ivette’s ode I am attempting to open up meaning, not fix causalities, nor speak on behalf of all of the others involved in the making of *DISTANCIA*. Each ‘note’ is therefore a vignette, an episode, that like each episode of the web series tries to cope with the epistemological problems of representation.

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Striving to hear each other’s muffled voices, Ariel Bustamante and I are having a conversation about the wind. The effort to try and understand the wind as a standalone, standstill object is useless, he says, ‘it can only be heard when it meets something else. The wind is a relationship.’ Ariel, artist and sound designer of *DISTANCIA*, has explained this to me countless times. He suggests we take the *observer effect* (in physics, the observer effect is the fact that simply observing a situation or phenomenon changes that phenomenon) as an analogy, and for a passing moment, I think I understand. Nevertheless, I trust that he understands, and learn from the way he listens.

For at least five years now, Ariel and I have sent each other short sound clips captured casually from our everyday. Using our iPhones we gift each other snippets of noise and music, fragments of our sonorous existence. Until early this year, Ariel had only heard the Fuegian wind through these digital capsules that I had propelled in his direction. Like arrows travelling through space and time, I was pursuing him with these bites from Tierra del Fuego, wanting to reel him in, to eventually get him to take on the task of recording the wind for *DISTANCIA*.

Two weeks before this was finally about to happen, during our preparative meetings in Santiago, it was Ariel who suggested to Carolina, Matias, and I that we to set up ‘rules for the game’, a ‘minimum and a maximum’. At some point, he even requested that we write a joint ‘manifesto for visiting Caleta María’. He was referring to the procedural aspects of the film shoot, asking us to decide upon a specific dynamic of play, but what I perceived he truly desired was a clear ethical framework. In response to this, I scheduled a conversation session titled ‘On Ethics and the Filmic Process’ as the inaugural event of the shoot. It was my belief that a serious conversation on ethics had to emerge in dialogue, between the visiting team and Fuegian locals.

That settled, Ariel reviewed the production schedule and after reading it carefully and asking many questions, he defined that there should be two systems to capture sound. Each necessitated specific equipment and the assistance of one sound technician (this is how the musician Sebastian Arce came on board the visiting team). One system was meant for recording interiors, meaning all the scenarios in which we would be in doors speaking casually, giving prepared presentations, conducting deliberated interviews, or performing movement exercises. The other sound system was for exterior scenarios; to take on excursions or for anyone to use at any given moment when exploring on their own. For production purposes, the nomenclature we decided upon to designate these two systems was *fixed* and *loose*.

Both *fixed* and *loose* recordings needed to be backed up every night of the shoot, transferred onto computers and hard drives. Cloned to make copies. ‘*El backup*’, was what Ivette called this nightly ritual that she observed with admiration, saying: ‘Never have I seen such a careful procedure of securing collective techno-memory.’

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7 Legacy is something that Ivette and I have given much thought to over the years, both together and apart. A synonym for legacy is patrimony and Patrimonial Studies is the name of the specific track Ivette followed within the masters program in Social Sciences at the Universidad de Magallanes in Punta Arenas. ‘Patrimony, legacy, inheritance, birthright, endowment, these are tricky words; trouble’, her and I concur over coffee one morning in Caleta María.

In her thesis, Ivette proposes that Chilean society lacks forms of collective memory making, and though she establishes a causal relationship to the military dictatorship, her specific thesis question is to look at why the well documented Selk’nam genocide has not constituted itself as a collective Chilean memory. Ivette carried out her Fuegian fieldwork (interviews with locals) in Porvenir and Timaukel, and through cross-referencing her interviews with bibliography on the subject she detected that the most significant reason for an obscured collective memory of the genocide is the tripartite alliance that carried it out: the execution proceeded without a specific culprit being established due to the allegiance between the State, businessmen, and the Catholic Church, leading to ‘the measles’ being blamed for the crimes (Martínez 2017).

Ivette presented her thesis to all the players during the film shoot. Through a PowerPoint presentation she explained how she has followed, with much enthusiasm, the local germination of a process of ethnogenesis (term used to designate historical processes of collective ethnic constitution). But, she argued that a bricolage methodology is needed for this process to grow by making a case for the funda-

mental need to bind loose individual memories to ‘emblematic collective memory’ (Martínez 2017). She told us of how the Selk’nam case has been of interest to Latin American studies scholars in recent years because of its particular complexity due to the binational claim to Tierra del Fuego: ‘On the Argentinian side, there is a small community of Selk’nam descendants that have been legally recognised as such and have been granted land by the State in recognition of their ancestors’ sovereignty. On the Chilean side, there is no State recognition and no claims of Selk’nam descent’ (Martínez 2017). Though, as she pointed out, there have been recent cultural manifestations, in Chile, inspired by Selk’nam memory. Ivette highlighted her discovery that contemporary Fuegian inhabitants use a common recurring element to explain their experience of the territory, this being a particular relationship between time and space that they often expressed as connected to Selk’nam culture. ‘Defined as long and slow, time in Tierra del Fuego is considered bound to distance, and the extreme distance between sites on the island and between the island and the main land is considered the condition for common feelings of abandonment, freedom, precariousness, patience, and isolation.’ Ivette continued her argument by explaining how each person interviewed had speculated that the Selk’nam probably felt the same isolation as they did, given that they had lived on the same land.

This identification process ended abruptly, however, when I showed them (the interviewees) pictures of Selk’nam peoples. These pictures, most of them taken by Martin Gusinde, some by the Salesian Priest Alberto D’Agostini and still others by the North American explorer William Furlong, were considered by all interviewees as ‘exotic’ and ‘fantastical’, everyone interviewed knew these images well, as they adorn restaurants, waiting rooms and t-shirts (Martínez 201).

During the years she undertook her master’s research, Ivette was unaware of the Selk’nam community Covadonga Ona’s claim to counter the request of State recognition of the genocide; asking, instead, for the State to recognise them as an existing Indigenous population of the Chilean Republic. The Covadonga Ona community has never been able to visit the Chilean side of Karokynka.

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Quoting the geographer David Harvey, who proposes that despite strong globalising and homogenising tendencies there still exists a unique and affective bond between individuals and the places they call home (Harvey 2017), Ivette’s hypothesis is that the territory that determined the life of Selk’nam people continues to determine the life of its contemporary inhabitants and that this fact is entangled with the ghostly traces of Selk’nam life and culture, i.e., the fishing corrals the Selk’nam built along the banks of Bahía Inútil (Useless Bay) that are visible every day at low tide. These vestiges, like open wounds, make the Selk’nam felt. This is what matters, she says: ‘that we feel with, for, and through the territory. Reanimating memory’ (Martínez 2017).

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8 In 1922, ninety years before the road arrived to Caleta María—and two years before Father Martin Gusinde found himself not far from there, at Lago Fagnano, participating in the Kloketen ceremony that he financed, wrote about, and photo-

graphed—the American painter, printmaker, illustrator, writer, sailor, and adventurer, Rockwell Kent, spent a short period of time sitting in a small boat in the middle of the Admiralty Sound. From it he depicted the coast of the land now owned by Ivette and Julio Gastón, in 1922 Selk’nam territory, and meeting place with the Kawéskar and Yagán, canoe peoples who the Selk’nam traded with (Prieto, 2011).

In Kent’s stunning representation, Caleta María shimmers in what appears to be a moonlight ghamta, cyan, and silver sunset. Showing the unique palette of colours of the bay, these paintings, alongside drawings and lithographs, can be found in his published travel journals, tilted *Voyaging: Southward from the strait of Magellan* (1924). On a cold starry night in 2011, Kiko uses the light from the blazing flames of the campfire to see the words in the chapter of *Voyaging* that describes Caleta María and reads these out loud to those gathered there. After about ten minutes, he breaks from reading, to tell us that despite Kent’s relatively privileged background he had formed radical political views early in life, joining the American Socialist Party in 1904, and that his trip to Tierra del Fuego had been preceded by one to Alaska. Though Kent seemed to enjoy the extreme outdoors, Kiko implied that he had been sent to such outposts by his colleagues who commissioned him to write travel memoirs intended to keep him away and out of trouble with the law. Despite their efforts, Kent’s political activism came to the fore in the 1930s, when he took part in several initiatives of the cultural popular front, including support for the war on fascism. Most notably, he participated in the American Artists’ Congress at the time of its formation in 1936 and later served as an officer of the Artists’ Union of America and then the Artists’ League of America in their efforts to represent artists to boards, museum and dealers.

In the changing post-war context, Kent also advocated nuclear disarmament and continued friendship with America’s wartime ally, the Soviet Union. Kent was not a communist and considered his political views to be in the best traditions of American democracy. However, his participation in the Stockholm Appeal and the World Peace Council led to the suspension of his Passport in 1950. He filed a suit to regain his foreign-travel rights, and in June 1958, the US Supreme Court in *Kent v. Dulles* affirmed his right to travel declaring the ban a violation of his civil rights. This was not his first time in court, for in 1951 he also had to defend his record in court proceedings, coming under attack as an officer of the International Workers Order, a mutual benefit and cultural society supported by leftist and immigrants.

I relay this story (whose facts I pinched from Wikipedia) for three symbolic reasons. First, the sheer eeriness of how Kent’s tale of eco-political global entanglement presages the contemporary political situation in his home country and abroad. Second, I am fond of how his story highlights the commitment of the artist to the pressing political and environmental struggles of his time. Third, Kent’s case is an example of how ‘American citizens know their rights and how their judicial system works, even though there has never been an obligatory program on the subject included in school curricula’ (Villez 2002). Barbara Villez, a legal scholar, supposed that ‘it is likely that a vast majority of the population in the United States has acquired this information simply from watching courtroom dramas, perhaps religiously and for some, from a very young age’ (1). Though during Kent’s early childhood, he would not have been watching TV; the

legal genre began in radio broadcasting in the 1930s and moved to television in the 1940s. Nonetheless, I am fascinated by stories of citizens that perform the law and since one of the original motivations for the making of the web series *DISTANCIA* was legal action, I take special interest in the history of a fellow artist who dared straddle the realms of politics, law, labour rights, and art.

Further establishing the relationship between legal culture and broadcasting, Villez writes that in her book *Television and the Legal System* that:

A legal culture is inseparable from a national mentality and acts on the models citizens have of behaviour in society. It is founded on mental images and notions which establish a vision of authority and an awareness of individual rights. With a legal culture, citizens acquire criteria allowing them to evaluate acts, decisions and even the well-foundedness of the laws. A legal culture is thus indispensable for responsible citizenship.

Television programs, offering citizens notions about the law and knowledge of how their legal system works, constitute a very accessible source of information and participate in the construction of this legal culture. (Villez 2002, 2)

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In media studies, there exists a strong debate around whether television plays a role in the ongoing formation of the public sphere. Some theorists reject entirely the notion that television audiences can ever function as a public. According to Sonia Livingston, 'value-laden distinctions tend to persist between the televisual audiences and publics, despite significant changes in technologies and practices of media consumption.' Noting that 'publics and audiences are often thought to be mutually opposed, in part because "public" implies an orientation to collective and consensual action, perhaps even requires that action to be effective for a public to be valued,' Livingstone argues that in a media and communications environment characterised both 'by mediation of publics and the participation of audiences we need to rethink the denigration of audiences as trivial, passive, individualised, while publics are valued as active, critically engaged and politically significant' (Livingston 2005, 18).

*

9 Though I'm uncertain about whether these 'notes' have achieved 'the clarity, meaning, and symbolic understanding' that Grebe believed (desired?) could have been attained from Chapman's recording of Kiepja, had Chapman translated and annotated Kiepja's verses, I can attest to how my translation and annotation of *Oda a Ivette* has certainly been an exercise 'in reverberation, in repetition, and in methodological accuracy', as well as practice in the language-translation that will eventually have to be undertaken to make the web series accessible to non-Spanish speaking audiences.

By using direct address, repetition, and familiarisation, segmentation, open narratives, and self-reflexivity I have been rehearsing the use of certain tools commonly 'used to guide the public's reading of televisual discourse' (Villez 2002, 4). So, even if the reader is not a fan of the serialised nature of this text, the reader has acquired from her general experience certain habits, which have sharpened her reception skills. Learning how to read this fragmented discourse, the reader has been drawn in to an archipelagic mode of inquiry. One that wilfully makes Karokynka matter.

To matter is a right that should never be negated. Caleta María, among other fjords of Karokynka, has been the site of matricide, genocide, ethnocide, political repression, and most recently ecocide. What is indeed lost, must be mourned. What remains, cared for. And those who pay attention to this whole process, celebrated: held in high esteem. The struggle to decolonise is straight but long.

As my curatorial practice intertwines with Karokynka, the bond between us grows stronger: questions of representation, memory, legality, and territory are further complicated and diffracted by questions of mediation, broadcasting, agency, and new technologies. Ivette and I share a mutual desire for environmental justice for Karokynka and our differences keep us going; hard at work we are learning the protocols of translating the learning that comes from staring at Caleta María.

*

As I prepare to curate the new phase of *DISTANCIA*, its maturation into a finished short-form web series, I sign off with one last remark:

While I navigate the treacherous waters of post-production and distribution, I will be guided by the soundness of the Yámana word *Uun-Darana(ta)*: To open the eye(s) wide. tr. To cut off a large slice. To slice off. (Bridges and Thomas 1951). The Yámana are the people who saw the Selk'nam, their neighbours, and I plan to make every attempt to enact the mandate I hear in this Fuegian word-concept: look with the eye(s) wide open, splice off. *DISTANCIA* will not re-enact the colonial gaze, it will stand instead as a neighbourly *manifiesto for visiting* the other. An ode to the other. A looking that constitutes a wider I/eye by founding a deep, respectful, response-able more than-I/eye, a not-I, a we, a thy. A sliced eye/I that is willing to recognise its shortcomings, as a mere slice of the whole picture.

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Brief Notes About Dust, Twirls, and Some Horses

Carla María Macchiavello



Carolina Saquel, *Untitled (Landscape) #5*, 2014–16, gelatin silver photo, digital print on baryta paper, 60 × 85 cm.

I'm writing at a time
In which I'm torn
suspended
like dust
not knowing
where
to sediment
turning
my head
spinning
to see
from below
from the side
the horse's legs
and beyond
them

In order to approach this triad of videos by Carolina Saquel, *Paso-Galope*, *Tutto di contrapunto* (both from 2014–18) and *Untitled (Landscape)* (2013–15), whose main theme, at first, seems to be the religious celebration known as L'Ardia di San Costantino, which happens every July in Sedilo, Sardinia, and is interpreted as a horse race, I had originally thought of writing about Ernst Gombrich's *Meditations on a Hobby Horse* (1963) and to explore a series of connections and lineages in art history, to quote some authors, and to fill the space with all these references.

In other words, I had thought I would keep on doing that which is expected from a text by an art historian, from a discipline within the Humanities. Tracing lines and lineages, determining some progress, describing the 'piece', placing it in context, framing it inside a history of art, and with some luck inside a 'social' history of art.

But today, as I feel that some part of my life is rapidly dissolving, that what I thought was safe is undone, these ideas about methodology also crumble and all I can write about is what I believe is the *punctum* in motion (if it is even possible to think of that slippery image) of the video installations and the working process that Carolina Saquel is showing today in Santiago: the dust.

The dust and the state of suspension that it evokes, whether in the air, as it rests in other objects and things, in its movement and later in its sedimentation elsewhere. The dust lifted by the horses' legs running around a sixteenth-century church in a town in the island of Sardinia, during the celebration of *L'Ardia di San Costantino*. The dust lifted by the wheels of a car in the Chilean south. The dust that sticks to the leaves of the trees I see through the window of the Poets House in New York where I've been escaping off to write.

The dust that rises from a desert and crosses the sea to settle in another continent, dust as ash, as sandstorm, magic dust, and plain old dust. The dust as an image and as a shape, a state of things, dynamic, ever-changing. Dust as an accumulation of tiny, homeless, solid particles.

That dust that finds itself in a state of suspension, formless yet creating its own form, a fluid form, non-formed, amorphous, unstable.

Dust in a domestic context can be linked to neglect, filth, lack of hygiene, poverty. But it also has geo-environmental, climatic, even cosmic connotations. We are stardust.

That ambiguity and the ambivalence surrounding the values and judgements that might be projected onto dust, lead me to ponder the difficulty of speaking of a work of art, of a video and photography installation in this case, that is in a state of suspension. A work that is a work in progress, which is being elaborated and is shown in the midst of its process. A work that, as I write and try to find a way of grasping it for the past months, continues to change from state to state. As I also change, as my

environment fades. How are we supposed to approach art as a state of suspension, or the making of art? How can we approach it when it is literally in motion, even in a process of disappearance?

Traditionally, in order to approach the process of a work of art, we turn to the artist's biography and tend to describe institutional contexts of the sort: Carolina Saquel first studied law and then art at Pontificia Universidad Católica de Chile before going on to study video at Studio National des Arts Contemporains, Le Fresnoy, and pursue a master's degree in France, where she lives today, and we install the artist and their work in a field and look for connections in this same field (networks, friends, contacts, exhibition invitations, as the one made by Cristina Collu to participate in an art residency in Sardinia). We generate constellations of people and ideas so that we may frame, as much as possible, the object of our study (other artists' works, texts like those that appear superimposed upon her portrait and in the landscapes in the photographic series entitled *Autorretratos* (Self-portraits), of 2012–15). We look for patterns within the artist's body of work, being careful to analyse its most microscopic material and semantic components. We build a constellation (galactic art dust?) with which we can generate an overall (spectral) image of the object. All of this is done in the search of meaning, a place where it might rest, even for a moment, the feeling that something makes sense, that art distils not just a form but also critical thought and a personal and collective feeling.¹ But as we move closer to a work of art, do we also look at what is dissolved in it, and what it dissolves? That which is lost in what is forming? The need for something to disappear so that something else might emerge? Do we look at each other, suspended by it, summoned by it, uncertain, wishing for something to grab on to, as we are being erased, becoming precarious by it at the same time?

I am
dissolving

While dust is a central component of the museum, the gallery, the art exhibition, even the artwork itself (as Man Ray suggested by photographing Marcel Duchamp's *The Large Glass* laden with dust that had accumulated for almost a year: *Dust Breeding*, 1920), dust occupies a somewhat marginal place in art history. Perhaps because of the decadence it conjures, recalling abandonment and the futility of our efforts, the physical waste implied by art, the precariousness of both the idea and the object itself. Or is there even something gloomier about dust?

As Henry Broome pointed out with regard to Man Ray's work, although dust functions as a clichéd symbol, a reminder of our death and of the transitional nature of all things, it has also been an agent of death.² Thus, dust cannot only prompt us immediately to the ruin, to the degradation of things (like minerals) and their transformation, including the incineration of bodies, but also to the effects of bombs and dust clouds produced and then inhaled by other beings, cutting short their future lives.

In Carolina Saquel's artist's book *Los lectores* (2014–15), the word 'catastrophe' appears in English almost tangentially, marginally. It appears suddenly amid the photographs of copies belonging to the artist's friends and acquaintances of the book *Caosmosis*, by French philosopher and psychoanalyst Félix Guattari. The word emerges in a fragment, whose framing and deep shadows dissolve its meaning at the edges of the page. Underlined and juxtaposed against the words: desire, collapse, sup-



Carolina Saquel, *Paso Galope*, 2014–18, HD video, colour, mono sound, 7:21 minutes (still).



Carolina Saquel, *Tutto di Contrapunto*, 2014–18, HD video, colour, stereo sound, 18 minutes (still).

plement, and forms, catastrophe stays suspended in time. As I write these lines, I find myself just blocks away from the former World Trade Centre and the building where I work, which had to be rebuilt because it collapsed along with the Twin Towers on 9/11. Dust hung in the air for months, people say; the complete clean up took a long time despite the fact that regular activities resumed in the nearby buildings, even the educational spaces. Am I still breathing the dust from that moment, from the collapse I watched on TV before going to class at the Instituto de Estética in Santiago, Chile? How long does a catastrophe last, and what is the shape of its ghosts?

Photography, film, and video in this case, all attempt to capture that moment of suspension between life and death, at once here and there or, in Saquel's own words, between the figurative and the abstract, representation and image. There is a bit of implicit magic in that capture, mysterious and spectral, as it is manifested in *Untitled Landscape* (2014–16), a series of photographs by Saquel in which dust is suspended on a rural road in Sedilo. In these photographs, dust forms an amorphous mass, dense, thick but also light, like glazes hazily revealing a background as if it were one of Rothko's cloudy rectangles, escaped to the everyday life of the Sardinian countryside, or perhaps a ghostly presence just waiting to emerge.

On the photographic negative, on the printed copy, dust also settles, as do pigments, ink, crystallisations that continue to change over time. Even in the moving image that seeks to capture the ritual of that Sardinian horse race, dedicated to the emperor who would have advanced Christianity in the Roman Empire, as the video *Tutto di Contrapunto* shows us. The contact of the skin and hair of the animals, the leather of the rider's boots, of the strained muscles, taints the surface of the camera lens with a fine layer of sweat and dust, softening and making the sunlight amorphous. Clouding the image, it denies the possibility of seeing. The anti-*punctum* that results from the temporary coupling and interaction of indomitable bodies.

In her notes, the artist describes how the dust, lifted by the horses' legs in the Ardia race, was a fundamental material aspect that captivated her. This fascination is linked to her interest in movement and its pictorial representation, in the tension between mobility and immobility that the image attempts to capture. That state of frozen fluctuation manifests itself in the strange materiality of dust. It manifests in its arbitrarily related particles, which float between a concrete image (dust itself) and a stain that condenses and dissolves, to appear anew in another form. In this sense, dust is not only pictorial, an atmospheric effect or a rugged texture deposited upon things; it is also a form and a thing at the same time. Dust reminds us, perhaps, of the in-determination of the boundaries of things, as evidenced by its own dissipation and recombination.³ In the fact that we inhale it and it becomes part of us, of our lungs. Even our bones are an extreme sedimentation of dust, its calcification. For you are dust, and to dust you shall return.

*ahora el único lazo que nos une
es ésa tenue nube
dice el maorí⁴*

The work of Carolina Saquel un-does the boundaries of things and renders them dust in more than one way. Mostly filmed with four GoPro video cameras strapped to the legs of two riders and beneath the belly of two horses, the resulting spontaneous shots (of the horses, the race, the village, with its streets and surrounding areas, including hills and fields, the church the horses race around, and a few observers perched on the hilltops) dismantle the expectation that the video is 'art'.⁵ In other words, that it is distinguishable by planned frames, by a point of view (from human eyes), or by the blurry, luminous, pictorial effects sought by the artist. This is a double detachment in terms of authorship and the beauty of the image. There is something monstrous, or disturbing in that approach to the formless, in the unbridled rhythm of the horses' gallop, in the loss of centre that is produced by focusing on the ground and watching its form mutate, in the lack of boundaries, guidelines, authorial intention, or presence of a hero in the narration that lends meaning to the story.

Beautiful uncharted moments without
valiant captains
To guarantee the trip home.⁶

The horses' sway, as they move and gallop, heighten the spectator's discomfort, as the image not only loses some of its sharpness, but produces a visual vertigo, a dizziness produced by a sea-swell. The horse becomes the sea. Waves without boundaries.⁷

If we ask ourselves what these videos represent, or what they document, we once again find ourselves confronting uncertainty and displacement. These are not videos about horses, nor a representation of their point of view, as in scientific videos or the kind of videos shown on Discovery Channel, which seek to exhibit, with the greatest possible degree of immediacy, a supposed 'gaze' of the animal (overlooking the fact that the camera, through its interaction with the animal, reconfigures the world). In this work, the legs that we see moving at a gentle walking rhythm, which suddenly becomes a breakneck gallop, whose hooves we can hear scratching violently against the pavement like metal castanets, are seen from what is more or less a midpoint from the belly of the horse. An extreme,

plummeting angle, without the depth of perspective. The camera, positioned on the side of the rider's leg, earthly, practical, and uncomfortable,⁸ pushes us up against the skin and muscles of the horses, so that we may feel, haptically and synesthetically, the touching and rubbing of the bodies that suddenly move closer when the horses break the human rules of etiquette, or decency, forcing the riders' legs to crash against them. The horses rub against each other as if they were rubbing our eyes (via the camera), and they blind us momentarily in an almost total blackness when they come too close. Despite being situated at a certain distance from the gaze, or the hand of the artist, the camera allows itself to be seen as a non-neutral device that intertwines languages, forms, and bodies, configuring them. What the video reveals to us is an intertwining of cameras, human beings, animals, air, light, dust, landscapes, histories, practices. Entangled cultural and material production.

i resist
i give full rein
and turn around

In this sense, part of what emerges from the dusty swirl, the sweat, the body-to-body contact in Caro-

lina Saquel's videos, is the animal's resistance to domestication. This is not your typical image of horse and riders that we recognise in the West, thanks to the tradition of equestrian portraiture. As Pia Cuneo points out, these videos reveal the horse as 'imposingly powerful, but utterly obedient to the rider's will; horse and human exist together in a state of perfect harmony, without any hint of conflict or discord between them.'⁹ In contrast, we approach the horse from underneath, to observe the animal's strength from there. We approach from the side to gain a sensual understanding of its musculature, relegating the riders to the margins, outside the field of vision, or backlit, as we see at the end of the video when the riders reach what seems to be the end of the race, the top of the hill. The riders need to repeat those acts with which they attempt to impose themselves upon the animals, in the illusion of taming, teaching, domesticating them. Performatively, the movements, the steps, the choreography comprised of humans and animals, in their interactions, are repeated over and over. A kind of dance, as Saquel demonstrates in her video *Pentimenti* (2004), which at times shifts from love and empathy to justified violence (from a human perspective) as a form of discipline employed for momentary control. It is present in the threat of the crop, in the neck of the horse that curves and exerts force against the reins

in order to go in another direction, in the hoofs' refusal to start moving or change speed. Saquel's videos remind us of that indomitable, rebellious quality that is always there—not just in the horse or in animals but in all beings that resist imposed systems, including the anthropomorphic distinctions between nature (animal) and culture (human). Though Saquel's videos do not dismantle these categories, they destabilise our expectations regarding art, criticism, and perspective, making them spin round and round. They make our heads spin.

Turn your f'ing head!¹⁰

This set of videos by Carolina Saquel decentre and are eccentric. They do not appeal to the logic of conventional narratives, despite being based on a rite such as that of the horse race, where some conquer and others are conquered, despite the chorus of voices that can be heard at the end of the video. Rather they lead us toward and appeal to a lateral gaze. They ask us to turn our heads and look from somewhere else.

The rite itself never appears directly or completely, despite the fact of being the event that revitalised tourism in the village of Sedilo. Its sequence order, with the priest's blessing of the gentlemen in the village (of the men, young and old, who sign up at the beginning of the year to compete with their own horses), the procession toward the sanctuary of Saint Constantine and then the race itself, almost forty-minutes long, with the riders going around the sanctuary in odd numbers, with the 'pandelas' or main riders who carry flags representing the Christian forces seeking to eradicate paganism. All of this disappears, when seen from the margins, from the corporality that brings it to life. Like a cloud of dust, present and absent. In fact, one of the few references to the origins of the rite in the video *Tutto di contrapunto* appears from a low angle, barely traced as a marginal shadow: the equestrian sculpture of Constantine, a generic image of the hero indicated by the front legs of the horse suspended eternally in mid-air, celebrating the Battle of the Milvian Bridge.¹¹ While this was just one of the battles Constantine waged in his effort to unify the Roman Empire (and it did not take place on the island, for that matter), it nonetheless became one of the foundational myths of Christianity within the context of the Roman Empire. The night before the battle, Constantine had a dream in which he saw the image of the Christian cross with an inscription: 'beneath this sign you will be victorious.' In the legend, the prophecy was fulfilled, Constantine defeated the Tetrarch Maxentius, and from then on, the newly minted emperor supported the Christians, marking the start of an all-out battle against paganism.

However, what predominates in the video is not the heroic story reconstructed in this Sardinian village, but rather the very odd quality of its recreation in the present day and the dusty traces left behind by the enactment of the ritual. More than a fascinating story, Carolina Saquel's videos and photographs bring us close to the loss of edges, the tenacity of the miniscule, the survival of the marginalised, the persistence of the anachronistic, 'the spectral time of survivals.'¹²



Carolina Saquel, *Tutto di Contrapunto*, 2014–18, HD video, colour, stereo sound, 18 minutes (still).



Carolina Saquel, *Tutto di Contrapunto*, 2014–18, HD video, colour, stereo sound, 18 minutes (still).

Perhaps the image that best captures the strange circularity of the rite and the rupture of its celebratory logic, its exit to other dimensions, its transformation into something else, the ghost that emerges from the dust, is the circular line that appears beneath the horses' hooves when they gallop unchecked. Hypnotic, virtual, and material, that eerie line reminds us that when we turn, we lose our contours: 'in the process of turning, the figure connects with its background in a mutual plastic transformation.'¹³ By turning, the world as we know it disappears and another vision emerges. In its cosmic aspect, a turn is also a revolution.



Carolina Saquel, *Paso Galope*, 2014–18, HD video, colour, mono sound, 7:21 minutes (still).

This essay was originally published for the exhibition catalogue, *Carolina Saquel « Repetir hacia adelante »*, Galería Gabriela Mistral, 6 de diciembre 2018 al 3 de enero del 2019 (Santiago, Chile: Galería Gabriela Mistral, 2019). The text was published in Spanish under the title 'Dar vuelta la cabeza: Breves notas en torno al polvo a partir de unos videos de Carolina Saquel' and was translated to English by Kristina Cordero. Reprinted with permission of Galería Gabriela Mistral.

- 1 'An artist, just like a philosopher, is a junkie for critical thinking. And he knows (allegedly) how to turn the results of his analytical activity into cultural forms.' Nadia Tolokonnikova, *Read & Riot. A Pussy Riot Guide to Activism* (New York: HarperCollins, 2018), 36. I thank Ricardo Gallo for introducing me to this quote and for giving me a copy of this book as a gift.
- 2 Henry Broome, 'A Handful of Dust: Photography after Man Ray and Marcel Duchamp', Studio International, July 12 2017, <https://www.studiointernational.com/index.php/a-handful-of-dust-photography-after-man-ray-marcel-duchamp-review-whitechapel-gallery-london>.
- 3 Reflecting on the Nobel Prize-winning physicist Niels Bohr (1885–1962), Karen Barad points out that 'For Bohr, things do not have inherently determinate boundaries or properties, and words do not have inherently determinate meanings. Bohr also calls into question the related Cartesian belief in the inherent distinction between subject and object, and knower and known.' Karen Barad, 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter', *Signs: Journal of Women in Culture and Society* 28, 3 (2008): 813.
- 4 Cecilia Vicuña, 'dheu,' *CloudNet* (New York: Art in General, 1999), 78. 'now the only tie that unites us/is that weak cloud/says the maori.' In the original text, written in English, this fragment appears in Spanish.
- 5 The artist captured some other perspectives from a distance, as we see in the shots of spectators on the hillside. Other views were recorded during a trial period, when the artist mounted a camera on the back and belly of a horse, and on a rider's leg.
- 6 Roberto Bolaño, 'Para Rosa Lentini, que desea ser adulta y 'es-ponsible', in *The Unknown University*, trans. Laura Healy (New Directions Book, 2013; Spanish language original: *La universidad desconocida*, Barcelona: Anagrama, 2007), 196.
- 7 To the aquatic subconscious of this text I deposit the following note: Carolina Saquel has said that as a child she rode horses in Yungay, near the city of Concepción. When she was twelve, a horse that she often rode ran off and nobody was able to stop it, which gave her a feeling of overwhelming instability.
- 8 A practice insofar as it responds to an awareness that materiality matters, that the camera becomes an agent in interaction with other agents, including the desires of the horse, the rider, and the artist studying them. Once again, I recall Karen Barad ('matter matters') and Jane Bennett, who refers to the vibration of matter and its agency in *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010).
- 9 Pia Cuneo, 'Equine Empathies. Giving Voice to Horses in Early Modern Germany', *Interspecies Interactions. Animals and Humans between the Middle Ages and Modernity*, ed. Sarah Cockram and Andrew Wells (London and New York: Routledge, Taylor and Francis, 2017), 66.
- 10 Deborah Hay, as quoted in Michèle Steinwald and Susannah Schouweiler, 'Deborah Hay: Turn your F'ing head!', *Fourth Wall, Walker Art Magazine*, September 11 2012, <https://walkerart.org/magazine/deborah-hay>. Dancer and choreographer Deborah Hay explains that turning one's head (in connection with a notion of 'front' or orientation in the dance or onstage): 'It totally changes your experience of what you're doing, what you're noticing as you do it—simply in the act of turning your head. How differently my body feels when I turn my head, when I also get information from over here! Once you decide on a direction, it edits what you see, what you perceive.'
- 11 There is also a brief textual reference at the end of the video which explains when the rite occurs.
- 12 Georges Didi-Huberman, 'The Surviving Image: Aby Warburg and Tylorian Anthropology', *Oxford Art Journal* 25, no. 1 (2002): 62.
- 13 Elena Vogman and Marie Rebecchi, 'The Anthropology of Rhythm', in *Sergei Eisenstein and the Anthropology of Rhythm* (Rome: NERO, 2017), 17.

Ensayos Methodologies

Helen Hughes

Before I came to ‘join’ them, these two texts were already connected in a number of ways. Both their authors are members of Ensayos, and co-editors of this issue of *Más allá del fin*. Both engage with the films of Carolina Saquel, also a member of Ensayos, and specifically with her footage of dust swirling: around the legs of racing horses in the Ardia ritual in Sardinia in Carla’s essay, and churned up under the wheels of a car travelling through Karokynka Tierra del Fuego in Camila’s. Both texts are penned as a mark of respect for a woman, the artist and lawyer Carolina Saquel in Carla’s and activist Ivette in Camila’s. Both texts mark a decisive break with traditional, disciplinary writing conventions and their inherent limitations: Carla away from the discipline of art history, and Camila away from that of anthropology. In so doing—and this is perhaps their most powerful shared feature—both texts describe and enact intellectual processes that are a sensual, affective, and embodied, rather than explanatory, ‘objective’, or distanced. Both open themselves onto and into forms of knowledge carried not only by individuals and communities, but also by animals, plants, weather formations, land, rocks, and their holistic combination in Country. This opening onto and into other vectors of nonhuman agency, this attentive porousness to one’s environment, is, perhaps, an Ensayos methodology.

As I see it, an Ensayos methodology is one that thrives on detours—on being guided, moved, directed, reoriented, decentred, rather than travelling cock-sure, like an arrow, from a to b (to paraphrase Ursula K. LeGuin in her ‘Carrier Bag Theory of Fiction’, 1986), with all the violence that this metaphor entails. Accordingly, Camila’s text is, in large part, a collection of footnotes—fragments of information that enhance but also distract and lead away from the so-called primary text (the ‘Ode to Ivette’) and toward other voices, creating a polyphony (also an Ensayos methodology—a methodology of the collective). Through these footnotes, Camila allows herself, and her reader, to become distracted; the text is properly bi- or multi-focal; in it, there is no possibility of a centre. Carla’s text abandons the disciplinary framework of art history, with its emphasis on artistic intention and teleologies of ‘progress’, to instead become entangled, disoriented, and redirected by the perspectives produced by the multiple GoPros strapped to the bellies of the horses and the legs of their riders. Echoing the protagonist-less videos in question (or, perhaps better, the decentred, multitudinous protagonist—the sense of the protagonist being the interconnected totality of all the matter that comes into contact in Saquel’s videos: horse skin, rider knee, sweat, air, dust, earth), Carla understands the dissolving of the subject (‘I am/ dissolving’) not as an existential crisis of identity, but as a powerful de-anthropomorphic experience of relationality and intra-activity.¹

But for all its commitment to detours, to cultivating ‘principles of uncertainty’, to losing contours and edges, to dissolving, both these authors—and Ensayos more broadly—come to their subject matter with serious purpose. Camila states this purpose unequivocally in footnote three of her text: environmental justice. Camila’s text swirls around issues of environmental justice in Karokynka Tierra del Fuego, inextricably entwined with Indigenous justice. Carla’s is less obviously oriented towards environmental justice as its subject matter, but performs a commitment to it through its decolonising and posthumanist methodology, through its humility—its willingness to concede access (for instance, to visuality in the case of the dust storm that clouds the camera’s lens).

So, in coming to ‘join’ these two texts, I am pleased to find myself utterly redundant. For the two are already woven together, enmeshed, imbricated: in methodology, responsibility, (dis)orientation. They, like their authors, are *co-madres*, *ensayistas*, *hermanas*, kin.

¹ Here I am informed by the work of Brian Martin, who in turn cites Karen Barad, in his essay ‘Methodology is Content: Indigenous Approaches to Research and Knowledge’, *Educational Philosophy and Theory* 49, no. 4 (2017): 1392.



Camila Testing Scent Mounds at Rio Calavera, 2016

Contributors

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Lucy Bleach is an artist whose practice focuses on humans’ varied relationships to tenuous, contingent, and volatile environments, seeking engagement with communities that authentically experience such relationships. She has undertaken research projects in geologically unstable regions in Italy, Japan, Hawaii, and Vanuatu.

Bec Carland is Senior Curator, History of Collections at Museums Victoria, Melbourne. She works across all disciplines at Museums Victoria to keep the collection relevant and dynamic. Her latest exhibitions include *Make Believe*, Melbourne Museum, 2018–19; and *Inside Out*, Melbourne Museum Touring Hall, 2017–18.

Juan Dávila is an artist and publisher living in Australia since 1974. Publications include: *Hysterical Tears*, ed. Paul Taylor (London: GMP, 1985);

and *Juan Dávila* (Melbourne: Miegunyah Press, Melbourne University Publishing, 2006).

Juan Downey (1940–93) was a Chilean artist who was a pioneer in video art and interactive electronic environments. He is well known for his experiments with feedback and his series *Video Trans Americas*, based on his travels throughout the Americas between 1973 and 1977.

Iris Duhn is an Associate Professor in the Faculty of Education at Monash University, Melbourne. Her research explores the intersections of childhood, nature, and materialities.

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John Kean was Art Advisor at Papunya Tula Artists Pty Ltd, (1977–79); inaugural Exhibition Coordinator at Tandanya: the National Aboriginal Cultural Institute (1989–92); Exhibition Coordinator at Fremantle Arts Centre (1993–96); and Producer with Museums Victoria (1996–10). He is currently undertaking a Ph.D. in Art History at the University of Melbourne. John has published extensively on Indigenous art and the representation of nature in Australian museums.

Tessa Laird is a writer, artist, and Lecturer in Critical and Theoretical Studies at the Victorian College of the Arts, School of Art, University of Melbourne. Her book on colour, *A Rainbow Reader*, was published by Clouds in 2013, and her book on bats, *Bat*, was published by Reaktion in 2018.

Greg Lehman is a writer and curator descended from the Trawlwuy people of Trebrikunna Country in north-east Tasmania. He works as a Research Fellow in Art History at the University of Melbourne.

Ursula K. Le Guin was an iconic writer known for her science-fiction and high fantasy works as well as her essays. Her published books include *City of Illusions* (1967), *The Left Hand of Darkness* (1969), and the *Earthsea* series (1968–2001).

Sarah Lloyd is a Tasmanian naturalist, writer, and photographer who has had a lifelong passion for natural history, especially birds. In 2010 Sarah started documenting the myxomycetes (acellular slime moulds) found in the tall wet eucalypt forest that surrounds her home at Birralee in central north Tasmania.

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research on the impact of the introduction of satellite television on remote Aboriginal communities. In 1986 he published *The Aboriginal Invention of Television in Central Australia 1982–1986. Unbecoming: An AIDS Diary*, his chronicle of the months preceding his death edited by Paul Foss (1990), and *Bad Aboriginal Art*, a collection of his published essays, conference papers and field reports (1994), were published after his death.

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Más allá del fin No. 3

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Design
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Printer
Tallinna Raamatutrükikoda, Tallinn

Edition
500

Publisher
Ensayos, Chile
www.ensayostierradelfuego.net

This issue of *Más allá del fin* was supported by the Australian Government through the Australia Council, its arts funding and advisory body; Monash Art, Design, and Architecture, Monash University, Melbourne; and Ensayos, Chile.



Acknowledgements
The editors thank all the contributors, and wholeheartedly thank Helen Hughes for the awesome opportunity to discipline *Más allá del fin*.

Acknowledgement of Country
Tierra del Fuego, Karokynka, Centre of the known pluriverse.

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