

Permanent resonance:

an artistic exploration of interspecies embodiment between a forest, trees & me

Suzy Costello, 2023

Abstract

I have lived beside an indigenous Beech-Tawhai Forest in East Harbour Regional Park for over thirty years - a mere sprinkling of time given it has lived here on the eastern shore of Te Whanganui-a-Tara, Aotearoa New Zealand since the last ice age 7,000 years ago (Cochran 57). Its presence is always with me, nurturing my family and the communities living alongside. This is an offering of thanks for its sustenance.

What follows is an artistic exploration of interspecies embodiment between trees and humans. Key questions explored are: If we and the trees are entities, each with distinct and independent existences, then how do we embody each other? Why is our connection to trees and place so important to us? And how do we honour this living being of a Forest that protects, not only its own mauri (life force), but the mauri of all those living nearby?

These questions inform my MFA art practice, resulting in a research-driven creative response. As a conceptual installation artist, my efforts to make space for deeper embodiment between myself, the Forest and trees leads to an investigation of the nature of embodiment within the context of social psychology, immanence, New Materialism, and systems-based art. A socially-engaged art project with my community expands this sense of embodiment, and artists focusing on environmental awareness broaden and nourish my artmaking.

Exciting scientific research into how trees communicate with each other and other species opens new dimensions for multi-species encounters that "situates us within the specific and affirms us as inseparable from the environment" (Adams 150). This, coupled with Aotearoa's indigenous Māori knowledge-based system, Te Ao Taiao, offers a path forward so we may learn from those who live sustainably and in harmony with their environment. It is hoped this thesis may add to the chorus of voices seeking to understand the world from a more-than-human perspective.

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On the eastern shore of Te Whanganui-a-Tara



Fig 1. Costello, *East Harbour Regional Park*, 2022.

An Entanglement

i am you are we are
entangling in this moment of becoming

an assemblage of fractals
a nesting of nows

topologies
sculpting our topography

forest tree me us
our lived and living bodies

sharing merging flowing
across the broken symmetry of time and space

futures and pasts are held in this now
impermanence and emergence

buried in Land that feeds us

Suzy Costello, 2022

Summer 2022

Drawing the Forest canopy

I have walked the tracks of the northern Forest of East Harbour Regional Park for many years but this art project allows me to revisit the Forest anew.

During the summer of 2022 I begin drawing the outer dynamic of the indigenous Beech-Tawhai Forest. Bordering the eastern edge of Wellington's harbour and Eastbourne and Wainuiomata settlements, the park covers over 2,000 hectares. Its northern Forest is smaller: hard beech and Rātā trees, Mānuka, Kānuka, and other broadleaved shrubs spreading from the eastern shore of Te Whanganui-a-Tara, up over mountains, to sweep across into the valley of Wainuiomata and down towards the southern coastline.

Standing at its western border you can feel the entirety of the northern Forest's collective intelligence, this singular living being of thousands of individual trees cooperating and intermingling to become one being. I pause, waiting to be invited before entering the Forest interior. A passage from *Among Trees, Among Kin* explains Māori etiquette towards Forests: "the ngahere is like a marae, or someone's home. A karakia, asking the forest to welcome us ... is a matter of respect, an acknowledgement of human limitation, an orientation to the unseen world" (Cripps 64).

Drawing the hugeness of the northern Forest is daunting and I am reminded of Zhang Zeduan's immense and intricately detailed 5.25m handscroll silk painting *Along the River During the Qingming Festival* which captures people and their surroundings in a northern China city during a 12th century festival (Brennan). Unlike Zeduan, who draws everything, I limit myself to snippets of the Forest canopy viewed from each of the twenty-one bus stops along its western border between Korohiwi and Ngāmatau (Eastbourne bus terminal and Point Howard). Slowly drawing my way around the Forest, taking time to feel the enormity of this living being, allows me to embody this experience of introducing myself to the Forest and it to me.

My materials are a 10m scroll of translucent Japanese mulberry paper and Faber-Castell watercolour pencils which I use without water. I like the impermanence and tension of a drawing that could dissolve at any moment with the introduction of water. As I roll and unroll my large scroll of paper at each bus stop, I wrap a small offering of protection around the Forest.

Early attempts to capture my feelings of embodiment with the trees result in drawings of abstracted blocks of colour. When there are dwellings I leave the space vacant, an interruption in the Forest's growth. Beginning with one block of colour, then moving to the next, I pay attention to tone and hue. The Forest colours are markedly different from my mental recall; in the full sun of summer afternoons the undergrowth is easily distinguished as areas of yellow-green, while the large stands of mature Tawhai and flowering Mānuka and Kānuka are tinged with ochres, pinks, and reds within a muted palette of deeper greens (Gabites 65).

In subsequent drawings the Forest is further away from me, and it becomes harder to describe the blocks of colour. Instead, focusing on form, a representational figurative mode emerges, as if I am drawing a portrait of someone. Colours are layered dark to light with a final ochre, lemon-yellow or cadmium-yellow layer to capture the shimmering quality of light above the Forest canopy. Throughout, my mark-making consists of diagonal pencil strokes.



Fig 2. Costello, *Bus stop 8838*, 2022.



Fig 3. Costello, *Bus stop 8840*, 2022.

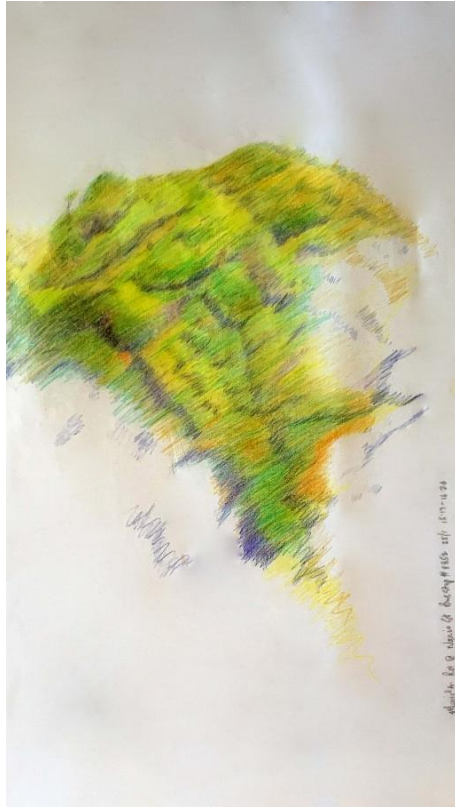


Fig 4. Costello, *Bus stop 8841*, 2022.



Fig 5. Costello, *Bus stop 8852*, 2022.



Fig 6. Costello, *Forest drawings reverse side – entrance*, 2022.



Fig 7. Costello, *Forest drawings reverse side*, 2022.



Fig 8. Costello, *Forest drawings right side*, 2022.



Fig 9. Costello, *Forest drawings folded*, 2022.

An entangled embodiment

A series of discrete yet continuous drawings of the Forest emerge. Each drawing expresses a duration of time while simultaneously referencing what came before (retained past) and what follows (anticipated future). Like Vrobel's nested-nows, here nows of different timescales become "an emergence of large-scale synchronized patterns of activity", not unlike the Forest (Laroche 4).

These episodic drawings feel like a metaphor for my own inner embodiment within the shifting dynamics of time and space. Subconsciously my brain reassembles isolated moments of corporeal entanglement into a cohesive sense of being. My entanglement is inseparable from the world in which I live, and my inner sense of being, my consciousness, uniquely my own.

I notice too, when concentrating on drawing the Forest my sense of time slows and expands to make space for a dynamic interaction between the Forest, the trees, and me: a coupling of agent and world. This dynamic perspective is relational: an "intrinsic temporality of experience thereby embodies the dynamics of the environment" (Laroche 3). But how to make sense of this ambiguous state of stillness and flow which feels different from precisely regulated linear time? Laroche describes inner time consciousness as a self-constituted flow: "it manifests itself to itself, enabling the experience of an enduring quality of its own dynamics", a consciousness that is perception and action, dynamic and incomplete, always moving forward, coupled to the world around us (Laroche 3).

This description resonates with my growing sense of embodiment with the trees and light as I marvel at the trees' interaction with sunlight, scattering and sharing it among themselves. I am filled with a sense of wonder at the Forest's canopy of outspreading crowns, its living cloak reaching upward to bathe and drink in the sun's light, doing what no human can. Humbled, I am grateful for this moment of entanglement with light and trees.

Reflecting on agency

Many artists extol the drawing process as a space where insights emerge. Francis Hallé, a French botanist, travels the world drawing trees in Forests to understand them more deeply. He explains, "Questions come to mind and the answers appear before my eyes. It takes time to become familiar with a tree, and photography is much too rapid a medium. When I draw a tree, when I record the external forms of plants, I feel like I belong, that I'm really doing what I'm supposed to do here on Earth" (Albert 35).

For my first studio presentation I suspend the scroll from the ceiling to create interior and exterior spaces for the audience to move around. My supervisors, Simon Morris and Sonya Withers, describe a sense of groundedness as they actively engage with drawings that occupy their bodily space and share how the distant view of Wellington's forested hills, visible through the studio window, augments this feeling. Further, the paper's translucency allows them to view each drawing from either side of the paper and it is intriguing watching them reconcile these shifting perspectives. The discontinuous nature of the drawings deconstructs a landform I am so familiar with, disrupting my sense of belonging to a place whose contours are hardwired into my being, a part of my flesh.

My supervisors encourage me to re-examine the notion of embodiment and what it means to embody the Forest from the isolation of bus stops. I reflect on Ana Mendieta's earth-body sculpture *Tree of Life* (1976), which offers a visceral elemental interaction with trees that is a long way from my artwork! Covering her entire body with mud Mendieta stands merged with the tree, hands raised in prayer and feet grounded "in the universal energy which runs through everything", opening herself to "the vitality of the Orisha; the gods who, according to the Santería, reside in the natural elements" (Fisher 110, 113).

[\[Ana Mendieta's *Tree of Life*, 1970\]](#)

Created in the 1970s, Mendieta's art resonates with a vibrancy and vitality of matter and the agency in all things to share their energies through the entanglement of Life processes. These qualities reverberate with today's post-constructionist ontology New Materialism emerging from feminist philosophy, science studies, and cultural theory academics Karen Barad, Rosi Braidotti, Elizabeth Grosz, Jane Bennett (Sencindiver, 1). Tim Ingold's description of the entanglement of Life processes seems relevant to Mendieta's work: "when we encounter matter, it is matter in movement, in flux (where) every 'thing' leaks, forever discharging through the surfaces that form temporarily around them" (Ingold 3). This non-specific entanglement is described by French philosophers Deleuze and Guattari as operating at both the perceptible molar level and "below the threshold of perception" at a molecular level, like Mendieta's work that resides in the natural elements (Merriman 1).

I wonder how Laroche navigates this imperceptible entanglement of intersubjective embodiment between the self and others when he states there is space for us to "co-enact a shared world of significance in which to be together" (Laroche 11).

The other becomes part of my embodied coupling with the world: I do something to him that changes something for me. This way, I pragmatically experience the other, I can enact him (...) we become dynamically contingent of each other... When we interact, we can participate to and mutually incorporate each other's embodied perspective (Laroche 7).

In contrast to Laroche's anthropomorphic notion of 'I' and 'other', New Materialism proposes there is merely events of matter in movement, "doings, rather than beings... enact(ing) that which is inside and outside of phenomena in a single movement"; events which are affected by matter's agency to exert control and power within this shared world of significance (Global Social Theory).

In Mendieta's body sculpture the dynamically contingency (the 'doing' between self and tree) is more evident than my drawings which focus on a singular embodiment rather than a mutually incorporated embodiment. I need to consider the trees' agency to exert control and power within this shared world of significance, and the vitality of matter that is "relational, plural, open, complex, uneven and contingent" (Global Social Theory). However, I am left wondering where my consciousness resides within New Materialism's flat ontology and Deleuze's "relational concept of assemblage ... as material movements of, and connections between, bodies, things and places" (Global Social Theory).

In new materialist ontology there are no structures, systems or mechanisms at work; instead there are innumerable 'events' comprising the material effects of both nature and culture, which together produce world and human history. Exploring the relational character of these events and their physical, biological and expressive composition becomes the means for social science to explain the continuities, fluxes and 'becomings' that produce the world around us (Global Social Theory).

Putting the materiality of matter to one side, I will investigate cultural factors influencing the continuities and 'becomings' that produce the world around me!

Cultural landscapes

Mendieta's art practice is situated in "the religious rituals and principles shaped by the indigenous Santería of her Cuban homeland" where she lived as a child before moving to the west coast of America with her family (Fisher 114). I wonder how my European and Pākehā cultural heritage influences my efforts to engage with the Forest.

My ancestral cloak is woven of Irish and English heritage. My mother was born and raised in the west of Ireland, moving later to England where she met my father who had transferred from RNZAF to the British RAF. With three young daughters, they moved to Singapore for two years then Aotearoa to be with my father's family when I was five. I am a sixth generation New Zealander; my father's maternal great-great-grandparents emigrated from England to Aotearoa with their children in the 1840's, following their oldest son who came to Aotearoa as an Imperial soldier with gun in hand to defend the Empire and spade in hand to name and claim the Land. My father's paternal grandparents arrived in Aotearoa separately from the west of Ireland in the 1870's. Tales are told of my great-grandfather travelling alone from Ireland as a 14-year-old and when asked later about his homeland replying, 'Don't look back son, there is nothing to see'. Such is the enduring suffering of the Great Irish Famine.

It has taken time to see myself as Pākehā, to acknowledge my whanau's part in colonising foreign lands to the detriment of indigenous Māori. Untangling one's own influences and biases to appreciate how they inform our personal worldview and cultural paradigm is a complex process. Sara Ahmed's essay *Collective Feelings, or, the Impressions Left by Others* provides wonderful insight:

Through emotions, the past persists on the surface of bodies. Emotions show us how histories stay alive, even when they are not consciously remembered; how histories of colonialism, slavery, and violence shape lives and worlds in the present. However, emotions can also offer new paths forwards, ... open up futures, in the ways they involve different orientations to others...It takes time to know what we can do with emotion (Ahmed 202).

It is clear my Forest drawings hold an echo of subject-object evidenced in 17th and 18th century European landscape paintings. These idealised romantic scenes reflect a cultural narrative framed by an industrial revolution ethos to subjugate nature to our will and the dualistic boundaries between natural and social worlds. Despite this, I do feel my encounter with the more-than-human world aligns to a greater extent with a unified mind-landscape, where the self is embedded and inseparable from the natural environment as described in eastern and indigenous knowledge systems and the notion of immanence. My leaning towards eastern philosophy is nurtured by tai chi meditation, inquiries into Gnosticism and Sufism, and living in Singapore during the 1960's as a young child.

When eastern culture was first introduced to European and American landscape artists of the late nineteenth and early twentieth century, it heralded a seismic shift in knowledge and embodied perspectives (Munroe 1). Artists, like Vincent Van Gogh, James Whistler, Arthur Wesley Dow, looked to Asian art to reveal the aesthetics of the here and now, of the world seen and unseen, as a dreamlike space of "flow and merging, (...) transparency, weightlessness, dematerialization, silence, and rhythmic movement and harmony" (Munroe 89). After the trauma of the second world war, these qualities and sensibilities offered a new path toward enlightenment and mindfulness that would inspire west coast American conceptual artists of the 1960-70s, like Mendieta, to investigate the metaphysical through an exploration of materiality (Munroe 93).



Fig 10. Hasegawa Tohaku, *Shōrin-zu byōbu-Pine Trees*, ink painting, 16th century, Tokyo National Museum.

During the 1970s, a collection of neo-avant-garde American artists formed the Bay Art Conceptual Art group in California (Munroe 211). Inspired by Eastern mysticism, they investigated "spirit" and "the nature of dematerialized form" (Munroe 212). Bruce Conner is one of these artists whose MANDALA series holds an ephemeral quality of flow and merging: "... tiny, felt-tip marks whose accumulation creates an optical field of quietly pulsating energy. He organized these marks in circular images, which represent a universal form that implies infinity" (Munroe 212).

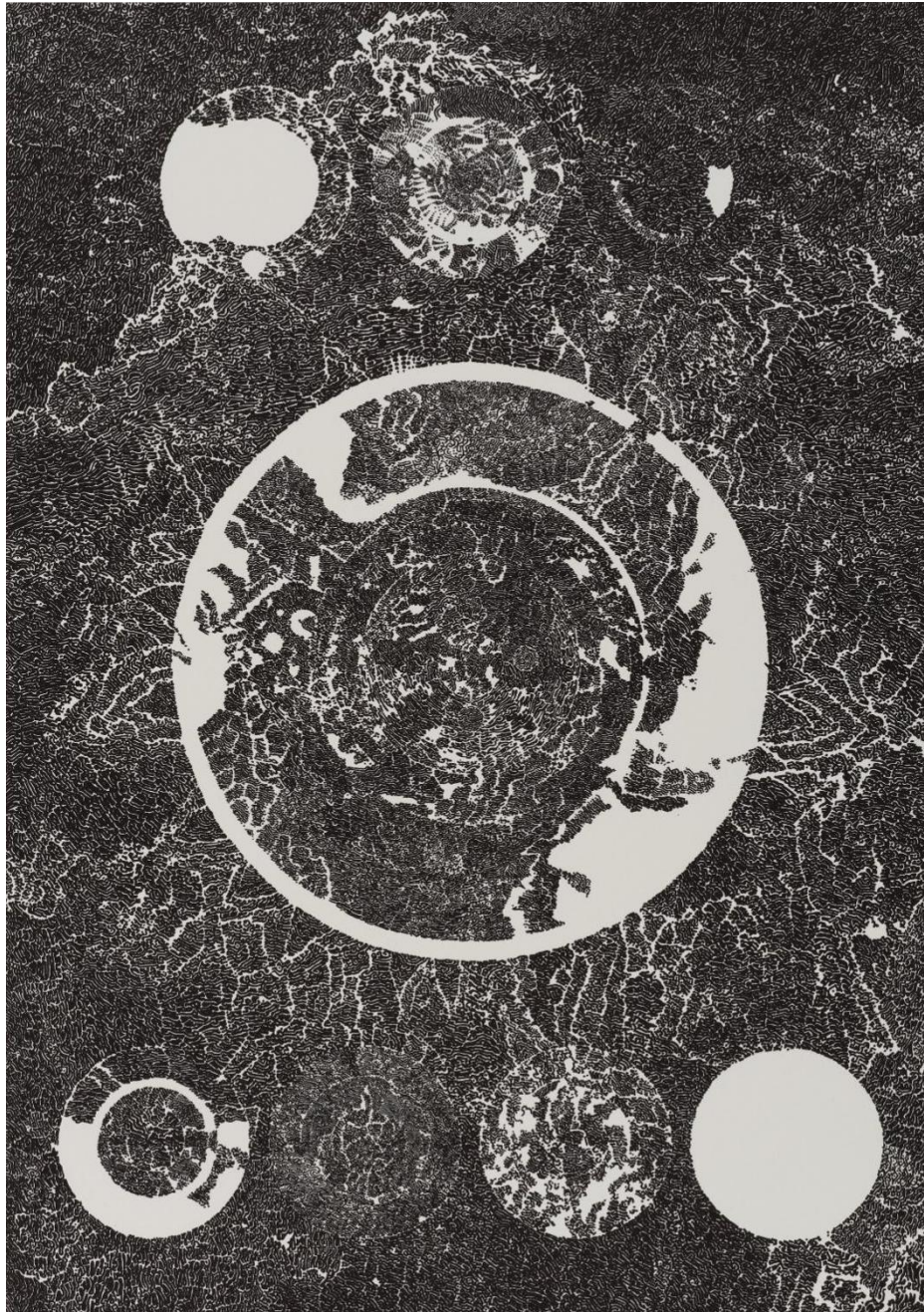


Fig 11. Bruce Conner. MANDALA, offset lithograph on paper 30 x 22-3/16" sheet, 1970, Collection Walker Art Center, Minneapolis Gift of the artist, 1998.

Silence, by Aotearoa artist Kelcy Taratoa, also investigates the dematerialisation of light and matter. Using geometry and hard-edged abstraction, Taratoa deconstructs his lived experience of daily walks on Mount Maunganui to witness sunrise. *Silence* reverberates with an energetic liveliness that serves to both anchor and disorientate the viewer in place and space.

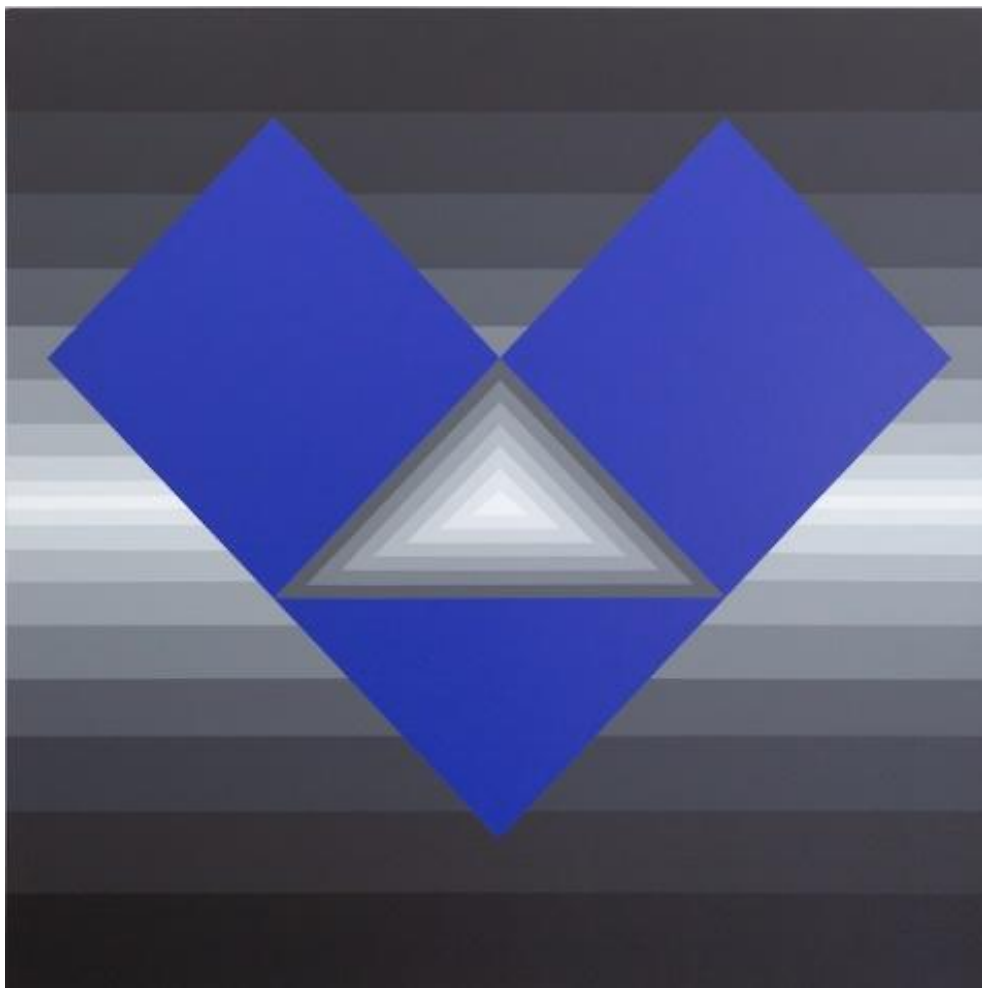


Fig 12. Kelcy Taratoa, *Silence*, acrylic on linen, 2020, Bartley and Company.

Installation 1 - Mountain, Forest, and Sea, 2021

Inspired by Taraoa's *Silence*, in my first MFA year I present *Mountain, Forest, and Sea* to recount my walks along Muritai beach and in East Harbour Regional Park. Rocks and burnt wood are collected from the beach to represent mountain and forest. They are three-dimensional objects containing mass and volume. Sea and sky are described more figuratively by hammering cobalt blue pastels between pieces of paper to produce a drawing.

The deconstructed elements of mountain, forest and sea are placed on the horizontal as free-standing sculptures for viewers to walk around and encounter their materiality and interrelationship. The *Sky* drawing is placed on the vertical as a picture. Despite the works' mass and volume, the space feels empty and silent.



Fig 13. Costello, *Mountain, Forest, and Sea*, 2021.



Fig 14. Costello, *Mountain detail, rocks*, 2021.



Fig 15. Costello, *Forest detail*, burnt wood, 2021.



Fig 16. Costello, *Sea and Sky detail*, pastel and paper, 2021.



Fig 17. Costello, *Sky*, pastel, 2021.



Fig 18. Costello, *Sea*, pastel, 2021.

People experience moving through space engaging with the works, at times kneeling to inspect the materials closely. The discussion of the work is full-bodied and critical. It raises questions about the ethics of bringing natural materials into a gallery setting, how this might interrupt their natural journey, and what happens to the material afterwards. The critique quickly jumps to meaning and context rather than describing the phenomenological encounter with the materiality of the artwork e.g., the weight of the stones and how this affects us and the space. The number of works presented and their relationship to each other seems to confuse and unsettle the audience who describe an incongruous relationship between the works.

In *Relational Reinterpretation* 2009, Mexican conceptual artist Gabriel Orozco juxtaposes the random behaviour of nature with the ambiguity of self-referential individualism (Alves). Using the pleasing aesthetics of sinuous, irregularly formed tree trunks, Orozco pits their natural harmonies against "metaphors on violence, migration, and ecology (...) Orozco's conceptualism in this show 'defines' the creative experience and once again questions the work of art as perfect human representation" (Alves).

Installation 2 - Impressions of Mountain, Forest, and Sea, 2021

The cultural appropriateness of asking tangata whenua permission before removing material from the landscape is discussed at the critique of this installation. Later, I connect with local tangata whenua, Myra Hunter, who suggests not to remove things from their place and helps me understand the deep connection Māori have to the Land as a place to hold the aroha of their people. Attempting to respond to this shifting energy between myself and my surroundings, I am determined to explore this space of perceptions, impressions, and memory traces of materials more thoughtfully.

Tissue paper, typically used to protect precious objects, is placed in an outgoing tide to be shaped by the sea, rocks are covered with paper to hold impressions of metamorphosis, and paper laid over burnt wood is rubbed with a smooth rock from the shore till its charred fractal patterns imprint onto paper.



Fig 19. Costello, *Tissue and sea*, 2011.

I present *Impressions of Mountain, Forest, and Sea*, a second installation of discrete works that are weightless, transparent, ethereal, and empty. This installation describes the dynamic qualities of space, a space where our movements and memories are held in the texture of the land and our enactive embodiment is experienced in a non-linear, relational way (Ingold 155). The relationality between the works is not explicit; this allows the audience to decipher their own meaning of the quality that links them together within the multiplicity of space (Massey 30). Hamish sees the way typography links the works; Shannon, the relational dynamics of space and how space and work are one, and how they recall positionality, territoriality, and topographical maps.

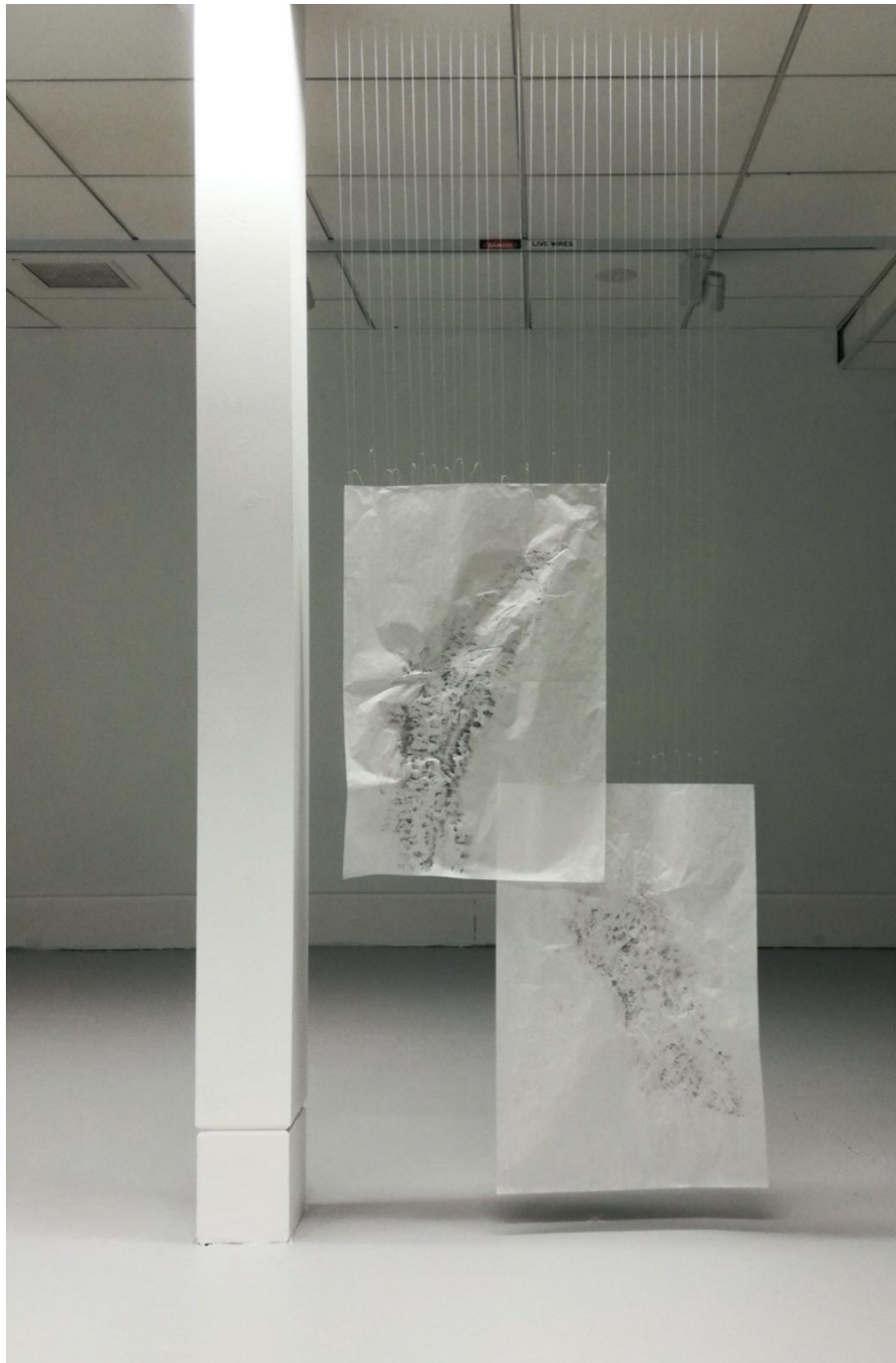


Fig 20. Costello, *Impression of Forest*, paper and charcoal, 2021.

Installation 3 - Form and Formlessness, 2021

I delight in this activation of space and the deconstructed dematerialisation of my lived experience. These processes nudge at the gateway between form (thing-object, figure) and the formless (empty of sense or meaning, ground) (Stupples 152). They describe a place and space of impermanence and emergence which is always under construction (Massey 30). These ideas are explored in the following installations *Space and Space Between*.



Fig 21. Costello, *Space*, pastel, 2021.



Fig 22. Costello, *Space Between*, pastel and burnt wood, 2021.



Fig 23 Mandy Holmwood, *Gollans Valley*, 2022.

Summer is fading
so too the cicada's song
that fills the valley

Suzy Costello, 2020

Autumn 2022

Entering the Forest



Fig 24. Costello, Breastbone possum trappers, 2022

Summer changes to autumn. In May, I walk Gollans Valley possum line with Mainland Island Restoration members Phil Bengé, Colin Dalziel, Alan Bengé, and Michael Louden. These legendary possum hunters help to restore the Forest and lake ecosystems in East Harbour Regional Park. For the last 20 years they have operated two trap lines along the Bus Barn track and in Gollans Valley. Their weekly trappings have culled over 1,000 possums from this area, quite some feat given possums eat over 21,000 tons of foliage every night in Aotearoa (Department of Conservation).

We venture off track and it is wonderful to see all the different ecosystems: patches of green kidney ferns light up the Forest floor, trees intermingle and grow close together. It feels vibrant in the Forest away from the tracks but as we reach the edge of Gollans Valley, signs and fences are reminders that we are walking near farmland. A 700-year-old northern Rātā and a pair of 300-year-old Tawhai Raunui-Hard Beech reach into the sky; Ngā Tokotoko-o-Te-Rangi, heavenly posts separating Ranginui and Papaūānuku so light may stream into the seen world (Ihimaera 52). There are a lot more baby trees off-piste; so many seedlings rise from the Forest litter clustering close to their mother tree.

Kōrero-a-iwi, local stories of place

After walking with the possum hunters it is apparent I need to move beyond my singular embodiment with the Forest. Peter Wohlleben's *The Hidden Life of Trees*, describes Forests as a political model of cohabitation which stirs me (Wohlleben 15). At Sonya's suggestion, I read Indigenous American Scientist Robin Kimmerer's *Braiding Sweetgrass* and am moved by her provocation "to offer our gifts of mind, hands, heart, voice, and vision to the renewal of the world in return for the privilege of breathe" (Kimmerer 384). I decide to invite people from Eastbourne and Wainuiomata to share their experiences with the northern Forest, a kōrero-a-iwi, local stories of place.

Socially engaging with others is an important aspect of contemporary art; it is a form of engaging others in a dialogical interaction that offers a pluriverse view of the world (Maguire 38). This recognition of our embeddedness in place explores a biocentric relationality that Matthew Adams, in *Between the Whale and the Kāuri*, describes as critical to "understanding the complexity that exists within the situated and the specific" (Adams 20). He states, "Anthropocene psychology is developed by hearing and telling stories of a landscape and its inhabitants, all active players in shifting assemblages of human and nonhumans: the very stuff of collaborative survival" (Adams 20).

Te Roopu Tiaki, who provides leadership for co-management of Parangarahu Lakes Area at the southern end of East Harbour Regional Park, acknowledge my project, requesting nothing be damaged or removed from the Forest. I approach Eastbourne MIRO members (Mainland Island Restoration) and Gary James from Wainuiomata Natural Heritage Trust. They are asked to reflect on their feelings when amongst the trees in the northern Forest, consider what the trees might feel, and their hopes for the Forest's future. Their korero express a love and caring for the Forest, and a concern for its perpetuity. Excerpt of some responses...

Ray Smith

We came to Eastbourne 50 years ago. I was born and raised in Christchurch which has no expanse of forest, just gardens, so seeing the forest for the first time was very emotional - an opening up of nature as something you live with. Our home has a track behind the house leading into the bush and straight away I felt I belonged here. I was conscious of another dimension, the natural world. The bush doesn't ask anything of you except to care so it can keep on going. I think the trees are indifferent to us. The trees have given me an appreciation of the meaning of life, to be blessed in life.

Jill Bagnall

The forest is very important to me. It is a green mantle. It gives a wonderful sense of division between where one can live and not live, a home for birds and other creatures, and a place for recreation. Peace and delight are always there. The forest has given me a sense of wonder, somewhere to explore, and a place of quiet thoughtfulness. I always feel quietly observant when I am in the forest. The trees are what matter - it is the trees which create the space and mood. I don't think that the trees feel my presence, but I do wonder about this.

George Gibbs

My earliest memories as a small child, and much of my adult life, has been spent on the margin of the forest. I became fascinated by the insect fauna of our land on the hillside and developed a lifelong interest in insects, qualifying with a PhD in Ecology. The forest gives me peace, a sense of belonging, and a connection to the natural world. It was my privilege to be influenced from a young age by the spiritual forces of all the eastern hills of Te Whanganui a Tara. These ranges and their predominantly beech forests existed when Polynesians, and later Europeans, arrived in these untouched islands and began their progressive destruction of the indigenous life (huia were common here at that time). I can only be thankful for the surviving

natural forest that enables us to see and feel something of its history when we visit it today. I have no way of knowing if the trees feel my presence. My hopes for the future of this forest is that it continues to survive; at best, in its present state, or with possible improvements in pest control techniques, to restore some aspects of it. Protection of East Harbour Forest is the only way to ensure its future.

Michael Louden

The forest has been a shared ‘backyard’ environment for our family for over 75 years. My earliest memories as a boy are short ventures for hunting in the creeks for koura and capturing green geckos. The trees and forest were just part of the environment then. It was not until later, with the pressures of work and family duties, that I started to appreciate the pleasure and peace of the forest as a whole. Once we started possum trapping and had reasons for going ‘off piste’ and excuses to sit for a while over morning tea and lunches, we enjoyed the improvement over time of the flowering of the forest and the increased birdsong and sightings.

The trees have taught me patience, respect, and a unity; gratitude for its life, peace and giving of perspective. The trees are part of the whole (the Japanese ‘Shinrin Yoku’ seems apt with its bathing in the forest idea). I am unable, and wouldn’t presume to know what the trees feel towards me. I would like to think that the trees could become evolutionarily aware of an inverse relationship between our presence and the possums’ presence. I hope the forest continues to exist as a living, maturing part of our mutual society. That it remains distinct, not interfered with by councils or individuals, but grows and is appreciated and enjoyed by future generations.

Thank you to everyone who offered their story in honour of this Forest we live beside.



Fig 24. Costello, *Kōrero-a-iwi*, 2022.

The language of trees

While participants describe a profound sense of connection and wellbeing when in the Forest, there is a hesitancy to see the world from the trees' perspective. How does embodiment occur meaningfully between humans and trees when we are such different lifeforms?

Mencagli and Nieri are Italian agronomists and bio researchers. In *The Secret Life of Trees*, they explain how our long evolution as homo sapiens in the green space of nature has profoundly influenced our genetic inheritance to regulate our behaviour and experiences when in the presence of trees.

When we say that a natural place provides sensations that make us feel good, we are simply drawing on our innate preference for the place where 99.5 percent of our evolutionary time has been spent: natural settings and landscapes (Mencagli and Nieri 49).

Entering green spaces, like forests, savannahs and parks, our bodies and minds spontaneously relax, "reducing stimuli on the amygdala-hypothalamus-pituitary-adrenal axis" (Mencagli and Nieri 86). When we walk in a forest breathing in air cleared of positive ions and charged with negative ions, we experience less "respiratory stress, migraines, fatigue, mood disorders, and other maladies" (Mencagli and Nieri 106). When we inhale volatile essential oils released by trees, our immune defences are stimulated and increase. So deep is our connection to green space that sharing time with plants improves our psychological well-being, "reawakening our feelings of connection with the bioenergetic landscape we inhabit and share with all living things" (Mencagli and Nieri 86). During our evolutionary time spent in green spaces we have adapted to distinguish over a hundred shades of green but a mere dozen shades of other hues (Mencagli and Nieri 12). Just looking at trees makes us feel better. The Japanese activity *Shinrin-yoku*, or Forest-bathing, has proven scientifically that regularly walking in Forests improves our physical and psychological health (Furuyashiki).

This is the language of trees talking to us through our senses: the smell of the Forest, its colours, the feel of the air on our skin. These interactions happen at both the molar and molecular level within our corporeal body, and we feel good. Trees make us feel good. Just as they cooperate and care for each other it would seem the trees want to care for us also. These embodied relational dynamics speak to the concept of thinking systems while allowing space for feeling and empathy to operate between all lifeforms; a shared world which "favours cooperative and pro-social behaviours" (Laroche 15).

Exciting scientific research is emerging of trees communicating with one other, as well as other species, opening new dimensions for multi-species encounter. Peter Wohlleben describes acacia trees releasing pheromones to warn other trees of giraffes approaching so they can release toxins to dissuade the giraffes from browsing on their leaves, but what happens beneath the ground is even more exciting (Wohlleben 17).

Aotearoa's Tawhai Forests seed every four to five years (Dawson 22). During mast years, Tawhai coordinate to release their seeds simultaneously, communicating with each other through a wood-wide web created by mycorrhizal fungi attached to their root tips. This symbiotic relationship allows fungi to feed on sugar the trees make during photosynthesis and in return provide trees with phosphate, nitrogen, and other vital nutrients that are difficult to extract from infertile mountain soil. As fungi form relationships with many trees, an intricate network of fine threads spreads throughout the Forest floor (Morris). Tawhai use this network to share carbon and sugars with other trees; "the stronger trees providing resources to weaker ones for the overall benefit of the Forest" (Morris).

Recently scientists have detected rhythmic electrical sounds emitting from tree roots which may be another form of communication (Wohlleben 98). Understanding and mutually incorporating other species embodied perspectives helps "to situate us within the specific and affirms us as inseparable from the environment" (Adams 150).

My walks through the Forest are now more mindful and alert to the trees and I feel enlivened being among these friends. For my next artwork I will create a sensory assemblage celebrating the parts that constitute the whole; an artistic exploration of interspecies embodiment between trees and humans.



Fig 25 Mandy Holmwood, *Gollans Valley*, 2022.

Contained by high walls
a small Forest grows within,
its breathe our heartbeat

Suzy Costello, 2022

Winter 2022

An assemblage

The Matariki constellation rising in the eastern dawn sky heralds the Māori new year. Winter is also a time of mahi, so I set to work creating the sensory layers for my final MFA exhibition: the colours of the Forest, its aroma, textures, tastes and sound, and the mysterious layer hidden beneath the soil.

Colour and light

Thanks to plants and trees, the Earth receives its nourishment from the sun: the planet's mineral flesh is metamorphosed to receive light within. As well as providing us with shade, plants and trees transform light into a consumable and universally available commodity, into a force that animates all of the bodies that exist on Gaia. Thanks to them, food is a secret trade in light that is consumed from body to body. These beings, to whom we pay little heed, are hard at work making the planet a place of permanent metamorphosis. As pioneering species, they are responsible for the transformation of nonliving matter into biomass, from mineral into organic... Through this intertwining, the perception of the world experienced by each living species passes first and foremost, albeit unconsciously and imperceptibly, through our experience of trees (Coccia 29).

Intrigued by Coccia's description of light consumed from body to body, I reflect on this subtle playful dance between light and matter. Reading more on electromagnetic resonance, I learn that excited electrons returning to their ground state release excess energy as discrete particles of light called photons. These photons travel at the speed of light without charge or mass, affecting and being affected by the magnetic field of space they traverse, until they are reabsorbed back into matter (Lucid). And this process repeats itself, matter into light into matter.

I begin another artwork exploring my embodiment with the shimmering light above the Forest canopy. These works describe a balance between order and spontaneity, of Life moving forwards in an ever-changing pattern of impermanence and emergence, just like the photons which light our universe. I use a pattern of prime numbers (a grid of 23 columns and row sequence of 2, 3, 5, 7, 11, 13, 17, and 19) to describe the merging of yellow-light and green-tree. I have used prime numbers in my artmaking previously and find their inherent eccentric patterning intriguing.

In the fourth drawing, I adjust the row sequence of prime numbers to produce an infinite wave that makes space for spontaneity to occur within the orderliness of repeated patterns. This drawing feels like my embodiment with trees and light interacting during photosynthesis. I play with the grid to get the right effect of random scattering and balance of green-yellow, eventually increasing the columns to 31. In version 5, I simplify the colours, using just ochre and phthalo green, and allow the pencil to become blunt before sharpening it which produces subtle tonal variations.

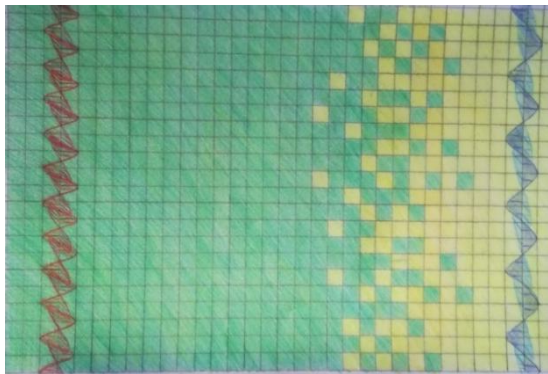


Fig 26. Costello, *Light and trees 1-5*, 2022.



Fig 27. Costello, *Light and trees*, 2022.



Fig 28. Costello, *Light and trees*, 2022.

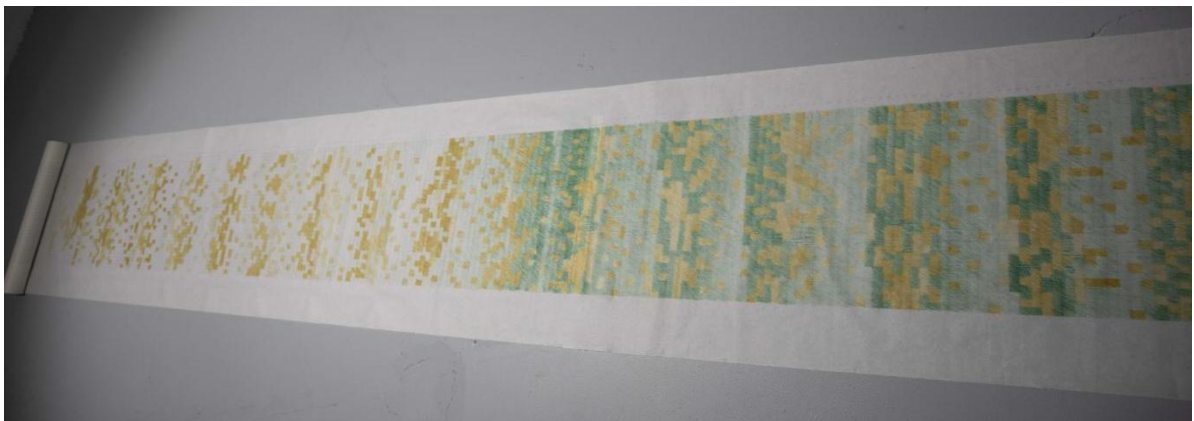


Fig 29. Costello, *Light and trees*, 2022.

This systematic approach produces an artwork true to my experience of the material movements and connections between bodies (trees, me), things (light) and place (environment). At Simon's suggestion I research systems-based art, a movement emerging in the 1940s where rules dictate the artmaking process, "eliminating metaphor ... emotive expression and authority of the creator", opening space for viewers to interpret a plurality of meaning. Like me, artists Agnes Martin, Françoise Morellet, Sol LeWitt dispensed with traditional composition, using instead the non-hierarchical nature of grids and lines (Zelevansky 9).

American artist John Cage adopted an intuitive engagement with systems-based art. After visiting Kyoto's Ryoanji Zen rock garden in 1983, he creates a series of tonal drawings where the placement of rocks occurs by chance but repositioned within the frame if they fell outside it, while their silhouette is repeatedly drawn according to mathematical formulae (National Gallery of Art). Cage then uses these sketches to compose musical scores. His willingness to allow intuition to influence the systems process acknowledges not only his own agency but the embodiment with the rocks' agency to exert control on him. This reflects my own intuitive use of systems-based processes as I respond to the fluidity of light and the agency of trees upon me.

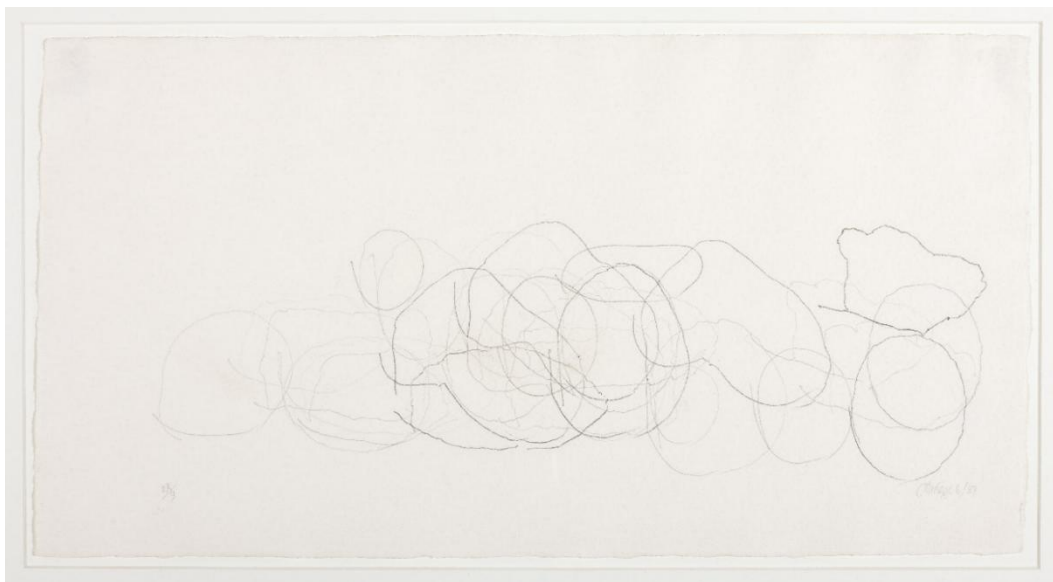


Fig 30. John Cage, *Where R = Ryoanji (2R)/9 - 6/87 (1987)*, Pencils on handmade Japanese paper, 16 3/4" H x 26" W, Collection of the John Cage Trust, ©John Cage Trust

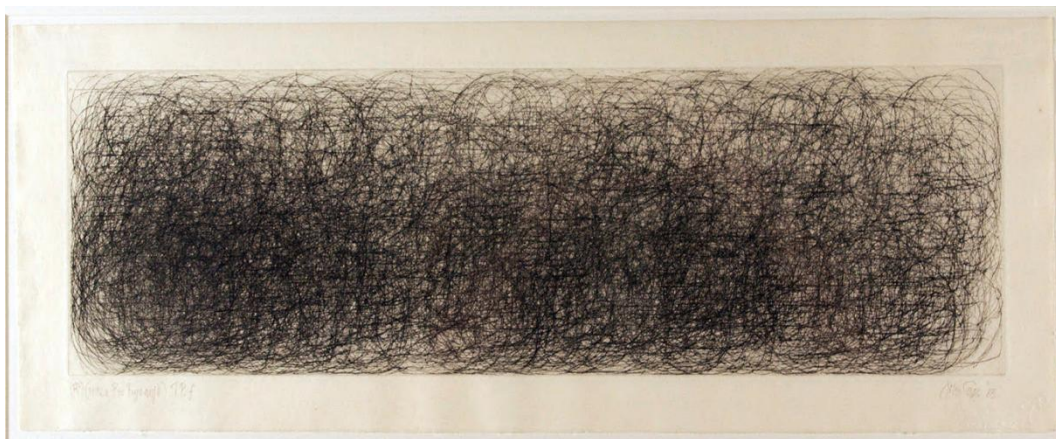


Fig 31. John Cage, *(R3) (Where R=Ryoanji) (1983)*, Drypoint etching on handmade paper, TP, ED 25, 14 3/4" H x 28 3/4" W, Collection of the John Cage Trust, ©John Cage Trust

Forest fragrance



Fig 32. Costello, *Collage of Karaka fruit infusion*, 2022

Smell is one of our most important senses, alerting us to danger, helping source food, evoking memories. As wind pollinators, Tawhai release a delicate scent almost undetectable to humans (Dawson 25). The northern Forest's summer aromas I recall are the sweet warmth of Karaka's ripe orange fruit and the woody floral scent of Kānuka's pink flowers. I collect ripe Karaka fruit beneath a neighbour's tree bordering the Forest and infuse them with iso-propylene for several months to extract their aromatic volatile essential oils. I purchase an aged Kānuka essential oil distilled from the bark of trees growing on Great Barrier Island; its antiseptic odour lessening over 10-years so its floral notes sing. I will trial these volatile essential oils in a vaporiser for use in the final installation so the room will be filled with fragrance reminiscent of the northern Forest.

Gallery exhibitions offering olfactory experiences are becoming increasingly popular. In March 2021 during the height of the Covid pandemic, American artist M Dougherty presents *Forest Bath* at Olfactory Art Kellers in New York. Displayed within the gallery are scented sculptures of wax and mycelium (mushroom roots) and forest aromatic essential oils, some distilled by the artist, are pumped within the gallery and onto the sidewalk for all to enjoy (M Dougherty).

More pointedly, in 2020, Aotearoa artist Dane Mitchell creates a fragrance for *Respiratory event (vapor whale)* using both natural ambergris produced by sperm whales and synthetic ambergris. Releasing this fragrance from a rooftop above the city of Bangkok, alongside a replica sperm whale skull, Mitchell's work highlights the natural world collapsing under the toxic pollution of synthetic man-made materials (Mitchell).

Textural frottages



Fig 33. Sue Allman, *Frottaging Rātā*. Photography, 2022.

In spring, a group of friends and I walk the northern Forest's Hawtrey track to a grove of enormous Northern Rātā trees living in a sheltered easterly-facing enclave. Sitting at the foot of a giant mother-tree over 700-years-old, Mandy guides us in meditation.

I am stilled, quietened in this place of timelessness, aware of wind caressing leaf, birdsong floating, drawn into the being of tree. Held safely in its swaying trunk I am curled within, grateful the tree has opened itself to me and I to it; a tender moment of interspecies embodiment.

Later, we unfurl a Japanese roll of thick Kozo paper and frottage the Rātā's twisted and gnarled trunk of coalesced roots that centuries ago encircled its host tree. Using humus soil from the base of the tree to rub over the paper, we feel the tree's sinuousness as we draw its body's textural contours. As the paper rolls onto the ground I frottage the forest floor too, capturing the marks of the tree's discarded skin. Once home, I stitch and pull the drawings of the trunk's contours to sculpt them into 3d again, playing delicately between the flatbed picture plane and real space.



Fig 34. Costello, *Frottages of Rata tree*, 2022.



Fig 35. Mandy Holmwood, *Hawtrey Track*, 2022

Foraging and Māori Mātauranga



Fig 36. Costello, *Pinched bowls*, clay, 2022.

I have made twelve unfired clay pinched bowls to honour this Land and Forest that nourishes our spirit, our kinship, and our body. Each is inscribed with a line of poetry from the kōrero-a-iwi participants. These bowls symbolise nature's generosity to provide for us and ask how we may contribute to the Forest's natural increase through acts of offering and thoughtful interaction.

Throughout East Harbour Regional Park there are "ancient Pā sites, rock shelters, pits, middens, and garden areas", reminders that indigenous Māori were sustained by the Land and "shaped by generations of connection in place" (Raukura Consultants 3) (Adams 150). While I have never associated a sense of taste with the northern Forest, Aotearoa's earliest settlers would have.

Tawhai produce small inedible fruit so the ocean, rivers, and streams sustained these communities (Raukura Consultants 29). To supplement their diet, Karaka trees were planted so their large fruit could be preserved to remove toxins and eaten during winter. A stand of old Karaka growing at the entrance to Muritai Park always greets me when walking the northern Forest. Close by Tī Kōuka, cabbage trees, were used "as a vegetable, with the growing tips of the branches snapped off, trimmed and steamed" and its leaves woven into fishing nets, baskets, footwear, and cloaks (Simpson 28). Mānuka, growing in dense stands further up the park, treated burns and scalds as a bark infusion, vapour from the boiled leaves treated colds, and "the inner bark was boiled and the liquid used as a mouthwash" (Simpson 33). Kawakawa, growing along the paths of the track, "cured wounds, diseases, and digestive and kidney issues" (Simpson 35).

As an industrialised society our food needs are met with trips to supermarkets. This, combined with conservation efforts to retain what is left of Aotearoa's indigenous forests (following the decimation of lowland conifer and broadleaf forests during colonisation), means as non-foragers we have shifted our awareness and relationship with nature, and our embodiment with other lifeforms. In *Braiding Sweetgrass*, Robyn Kimmerer describes the foraging system as a gift and commodity exchange which creates a feeling-bond between people and their surroundings; "a formal give-and-take that acknowledges our participation in, and dependence upon, natural increase. We tend to respond to nature as a part of ourselves, not a stranger or an alien available for exploitation" (Kimmerer 30).

How can we participate in natural increase without exploiting Earth's self-regulating open system, where "energy flows freely into and out of systems", but with respect to matter the Earth is mostly a closed system (NASA)?

Māori Mātauranga, Te Ao Taiao, envisions a worldview of interconnectedness and inclusiveness. In letters written to Elsdon Best in 1890, Māori scholar Tāmāti Ranapiri, explains this symbiotic balance as, "an economy of *mana*, or economy of affection, which exists to maintain the four well-beings of Māori and the Pacific—spiritual, environmental, kinship and economic" (Hēnare 1). Māori academic Mānuka Hēnare describes the spiritual as:

A reverence for the total creation as one whole; a sense of kinship with other beings; a sacred regard for the whole of nature and its resources as being gifts from the spiritual powers; a sense of responsibility for these gifts (taonga) as the appointed stewards and guardians; a distinctive economic ethic of reciprocity; and a sense of commitment to safeguard natural resources for future generations (Hēnare 212).

Scientists Harmsworth and Awatere acknowledge a "clear link between healthy ecosystems (with greater life-supporting capacity) and people's cultural and spiritual well-being", explaining:

Most ecosystems require a diversity of lifeforms to exist and function properly and to sustain the services provided by ecosystems. This holistic thinking, based on traditional Māori values and beliefs, has increasing parallels with late 20th century emergent concepts and practices of interdisciplinary mainstream science, sustainability, ecological economics, and integrated planning and policy (Harmsworth and Awatere 274).

Today the southern end of East Harbour Regional Park, Parangarahu Lakes Area, is managed by advisory group Te Roopu Tiaki, established in 2012 to provide leadership for co-management of the area which was returned to Taranaki Whānui as cultural redress reflecting the Treaty Settlement. Te Roopu Tiaki "provide for the enhancement and protection of Taranaki Whānui's ancient relationship with the Land and ensure that the Land is held and appreciated in accordance with Taranaki Whānui tikanga" (Te Roopu Tiaki 8). The group comprises three members from Port Nicholson Block Settlement Trust, representing the iwi of Taranaki Whānui who hold Kīatiakitanga, and three senior staff members of Greater Wellington Regional Council.

Employed throughout Aotearoa, this model enables Māori Mātauranga and science to operate together to ensure natural increase into the future.

Sound of water falling



Fig 37. Costello, *Clay and water*, 2022.

As a ritual offering to the northern Forest, each day of the installation I will place an unfired clay bowl under a slow dripping water feature using water collected from a neighbour's stream fed by the northern Forest. Gradually the bowl will dissolve, form returning to the formless. Another bowl will be placed upon it till all the bowls are used to acknowledge our fragility and utterly dependence on matter's 'mostly' closed system within our biosphere. What will happen when we have exhausted Earth's matter?

Water is the giver of life, and Dane Mitchell's 2015 exhibition *All Whatness is Wetness* offers viewers a phenomenological encounter with this primordial substance. Water is sourced from the Maeander River in the heart of Ancient Greece, the source of Western rational philosophy. It is distilled using homeopathic methods to heighten the potency of the water's memory and then vapourised for viewers to experience as an unpredictable and ever-changing mist (Mitchell). Mitchell's responsiveness to the fluidity of water's agency encourages me to embrace its unpredictability; will water spread throughout the exhibition space or be contained by the unfired clay vessels?

What lies beneath



Fig 38. Costello, *Fungi, thread*, 2022.

From knotted thread I make a carpet based on the growth habits of plant roots and fungi. An open gateway system of recurring growth pattern (one root dividing to become two) allows plants to naturally increase and expand to feel the world around them (Coccia 76). Fungii's indeterminate growth habit of "a hyphal network as a geometrically-unconstrained structure" resonates with New Materialism's notion of innumerable 'events' devoid of "structures, systems or mechanisms at work" (Boswell 30) (Global Social Theory).

Fungal networks provide a sense of hope for the renewal of nature as discussed in Anna Tsing's essay *The Mushroom at the End of the World*. They speak to Life supported and emerging from the darkness under the soil (Bodenstein 231).



Fig 38. Mandy Holmwood, *Gollans Valley*, photography, 2022.

Wilderness contained
cupped in the palm of our hands
flowing water stills

Suzy Costello, 2022

Spring 2022

A bonsai forest

It is time to address the discussion between the northern Forest across the road from where I live and the bonsai forest growing within the walls of our garden. How do they speak to each other? Why have we created a small forest of bonsai, requiring constant attention to survive, when there is a self-sustaining Forest across the road?

Maintaining bonsai requires horticultural knowledge to ensure not only the tree survives but grows to emulate the tenacity and beauty of weathered aged trees (Coussins 57). The Japanese notion of wabi sabi celebrates the beauty of transience and imperfection and is at the heart of the bonsai aesthetic (Coussins 5). The artistry of the bonsai student is to reveal the story within each tree. It requires one, "to listen to the tree, it tells you where it wants to go" (Naka). A well-tended potted tree will naturally over time reduce its canopy in relation to its root space. Some of Aotearoa's Tawhai Rauriki-Mountain Beech survive freezing conditions by becoming bonsai less than half a meter in height (Dawson 22). The art of gentle bonsai uses fingers and string, rather than tools and wire, to mimic wind breaking branches. Unwanted branch tips are removed, encouraging the tree to regenerate and rebalance itself.

Like my first creative encounter with the Forest, I return to drawing my husband's bonsai. As always, I am surprised how much I learn from this process; I notice the strength of the nebari (the foot of the tree, an important element of bonsai), the twists and turns of trunk and branches, the way foliage presents itself, and the energy, strength, and feeling of the tree. The miniature scale of bonsai enables me to embody the tree differently, as a singular entity, an individual like myself; "a microcosm containing within it, unchanged in everything but size, the mystery of the universe" (Lewis).

Watching John tend his bonsai, I am reminded of the Chinese proverb, "He who plants a garden plants happiness" (source unknown). All living things share an energetic experience together. This energy, its frequency and vibration in the form of electromagnetism, "supports all living processes and allows both humans and plants to relate instantly with the world around us", evoking feelings of immanence within. (Mencagli and Nieri 117).

Like others who tend their gardens and beautify their homes with the patterns and colours of nature, we do so because nature restores and connects us with all living processes.

Song for the biosphere

This is my installation for final studio presentation, *Permanent resonance*



Fig 39. Costello, *Test installation #1*, 2022.

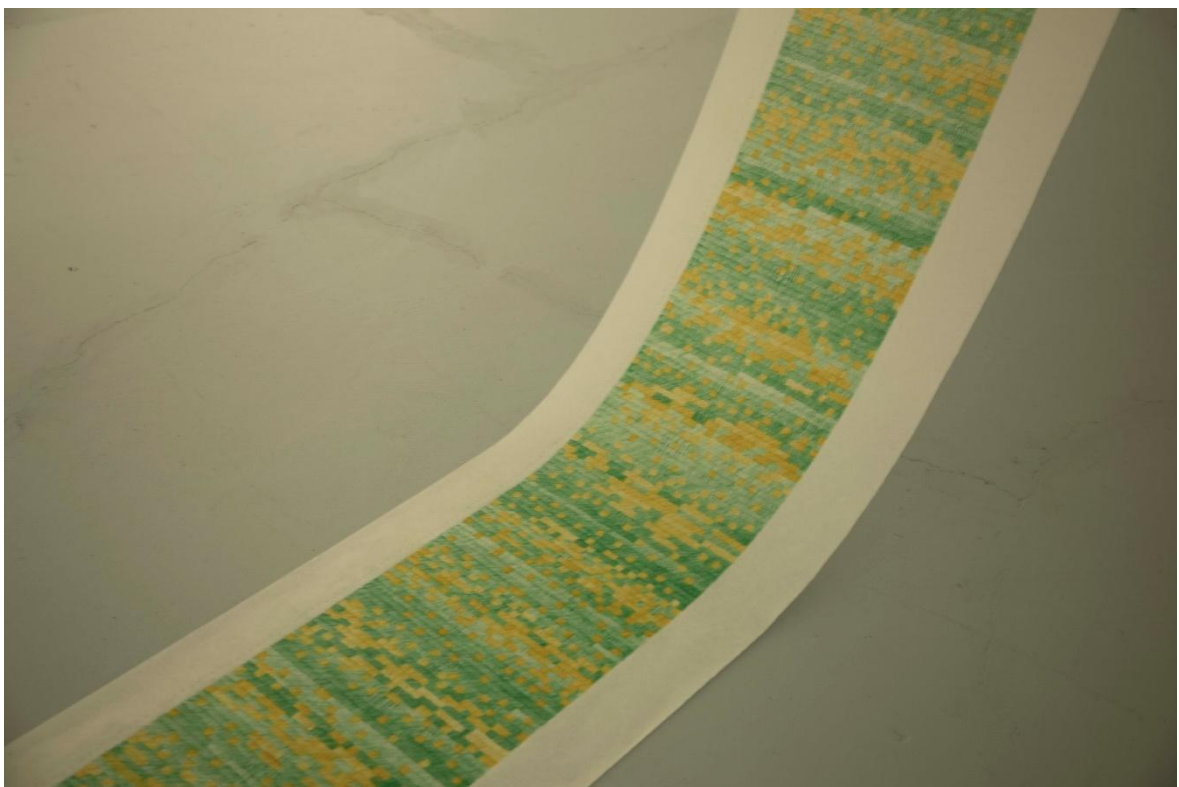


Fig 40. Costello, *Test installation #2*, 2022.



Fig 41. Costello, *Test installation #3*, 2022.



Fig 42. Costello, *Test installation #4*, 2022.



Fig 43. Costello, *Test installation #5*, 2022.



Fig 44. Costello, *Test installation #6*, 2022.

Reflections

Striving to replicate the experience of walking through the Forest or a Japanese garden, I arrange artworks in three groups for the audience to encounter: first the forest canopy, then trees, and finally water. Clay bowls are dispersed throughout the room to democratise the space, merging boundaries between artworks and connecting spaces. Before the audience arrives, Simon and I reposition the bonsai and fungi into the centre and rearrange cushions so the whole space is used. This gives the installation a more expansive feel. We adjust the *Light and tree* drawing slightly so the audience has multiple pathways.

Karaka fragrance greets the audience at the entrance and the exhibition room is filled with the aroma of Kānuka. People's gasps of delight when encountering the drawing and water feature are unexpected and pleasing. Meandering, they inspect the frottage from both sides, pause at the water feature to engage with its fluidity, sit and read the book.

I open the discussion with poetry, outline my thesis and invite others to share their insights. They describe the transformative effect of the Forest aromas, their feeling of being embraced by the frottaged tree trunk, the sense of a deep underlying connection linking the works conceptually and being overwhelmed by the large body of quiet artworks referencing different media, size, and timescales.

When asked what they would change, suggestions include: removing the bonsai as it holds a different timescale from the 'now' of the exhibition, presenting only the water feature accompanied by the Forest aroma, and removing some pots and the book. Others feel the multiplicity of systems-based approaches detracts from the installation's cohesion and suggest works would be better dispersed throughout the Exposure exhibition and the *Light and tree* drawing exhibited later. Like all studio presentations I come away with more questions than answers.

During de-installation I experiment with reducing elements. Removing the bonsai, I feel uncertain about the exhibition's ethereal quality and lack of energetic liveliness. I feel the bonsai anchors the installation and symbolises plants' longevity to exist before and after humanity's time on Earth. When I remove the paper from the water feature the space feels less crowded by repetitive vertical hangings. I remove the frottages till one remains, its organic marks speaking eloquently to the bonsai and fungi placed nearby. Removing the *Light and tree* drawing, book, and cushions means there is no reference to green and growth. This disturbs me. Instead, the frottage and clay bowls radiate a quality of earthiness rather than tree-ness.

I reflect on Martin's comment about the multiplicity of systems I have used and realise I have intuitively responded to Earth's different systems for energy and matter, each eliciting a system appropriate to their vibrancy, vitality and agency. Rather than seeking a singular definitive notion of the Forest, my art deconstructs and celebrates the multiple elements that compose this complex living ecosystem.

Scientists Miguel and Su-Young state -

The emergence of Life is a pure individuation process... a regime of permanent resonance characterizing the biosphere, as open from inside, by the recursive differential relation between the biosphere and all its holobionts [closely associated species that have complex interactions] (Miguel and Su-Young 201).

This is the language of my art: assembling deconstructed elements to expose their recursive relation so we may appreciate the resonance of Life.

Conclusion

This thesis explores the shared world of significance in which trees and humans are being together. The nature of embodiment is examined within the context of social psychology, immanence, New Materialism, and systems-based art.

My lived and living experience with the northern Forest of East Harbour Regional Park is deconstructed using systems-based art processes that respond to the vitality and agency of light and matter. The resultant sensory artworks resonate with the emergence of Life and the language of trees. They are a conceptual, artistic exploration of interspecies embodiment. Community art projects expand this sense of embodiment, and its wilderness is recontextualised as I investigate why we recreate moments of connection with nature within our home.

Thank you to all who have contributed and especially to the northern Forest of East Harbour Regional Park.



Fig 45. Mandy Holmwood, *Gollans Valley*, 2022.

Poipoia te kākano kia puawai

Nurture the seed and the blossom will come

Māori whakatauki

Works cited

- Adams, Matthew. "Between the whale and the kāuri tree: Multi-species encounters, indigenous knowledge and ethical relationality in the Anthropocene." *Anthropocene Psychology : Being Human in a More-than-Human World*, Routledge, 1st edition 2020, pp. 147-170.
- Ahmed, Sara. "Collective Feelings, or, the Impressions Left by Others." *Theory, Culture & Society*, vol. 21, no. 2, Apr. 2004, pp. 25–42.
- Alves, Thiago. "Gabriel Orozco: Relational Reinterpretation." *Art Pulse*, 2009, www.artpulsemagazine.com/gabriel-orozco-relational-reinterpretation/.
- Bodenstein, Brandon. "The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins." *Anthropology & Humanism*, vol. 42, no. 2, Dec. 2017, pp. 230–32.
- Boswell, Graeme P. and Fordyce A. Davidson. "Modelling hyphal networks". *Fungal Biology Reviews*, vol. 26, Issue 1, 2012, pp 30-38.
- Brennan, Kristen. "Attributed to Zhang Zeduan, Along the River during Qingming Festival handscroll". *Khan Academy*, www.khanacademy.org/humanities/art-asia/imperial-china/song-dynasty/a/attributed-to-zhang-zeduan-along-the-river-during-qingming-festival-handscroll/.
- Coccia, Emanuele. "Experiencing the World." *Trees*, Bruce Albert et al, Foundation Cartier pour l'art contemporain, 2019.
- Cochran, U. (. 1.), et al. "Relative Stability on a Tectonically Active Coast: Paleoenvironment during the Last 7000 Years at Lake Kohangapiripiri, Wellington, New Zealand." *Quaternary International*, vol. 56, no. 1, Jan. 1999, pp. 53-63–63.
- Coussins, Craig. *Bonsai Master Class*. Sterling Publishing Company Inc. New York, 2006.
- Cripps, Phoebe, et al. *Among the Trees*. Hayward Gallery Publishing, 2020.
- Department of Conservation. "A pest of plague proportions." *Department of Conservation Te Papa Atawhai*, n.d., www.doc.govt.nz/documents/science-and-technical/everybodyspossum.pdf/.
- Dawson, John, et al. *New Zealand's Native Trees*. Standard ed, Craig Potton, 2011.
- Fischer, Peter. *About Trees*. Zentrum Paul Klee, 2015.
- Furuyashiki, Akemi et al. "A comparative study of the physiological and psychological effects of forest bathing (Shinrin-yoku) on working age people with and without depressive tendencies." *Environmental health and preventive medicine* vol. 24,1 46. 22 Jun. 2019.
- Gabites, Isobel. *Wellington's Living Cloak : A Guide to the Natural Plant Communities*. Wellington Botanical Society, 1993.
- Global Social Theory. "New Materialism." *Global Social Theory*, n.d., <https://globalsocialtheory.org/topics/new-materialism/>.
- Harmsworth, G. R. and Shaun Awatere. *Indigenous Māori Knowledge and Perspectives of Ecosystems*, 2013, *EBSCOhost*, www.doi.org/10.7931/DL16C7. Accessed 6 July 2022.
- Henare, M. "Ko Te Hau Tena o to Taonga": The Words of Ranapiri on the Spirit of Gift Exchange and Economy. *Journal of the Polynesian Society*, vol. 127, no. 4, pp. 451-63, 2018.
- Ihimaera, Witi. *Navigating the Stars : Māori Creation Myths*. Penguin Random House New Zealand, 2020.
- Ingold, Tim. "Bringing Things to Life: Creative Entanglements in a World of Materials." *Realities*, Working Paper #15, 2010/07/20.
- Ingold, Tim. "The Temporality of the Landscape." *World Archaeology*, vol. 25, no. 2, Oct. 1993, pp. 152–174.
- Kimmerer, Robin Wall. *Braiding Sweetgrass*. First edition, Milkweed Editions, 2013.

- Laroche, J. (.1,2), et al. "Embodiment of Intersubjective Time: Relational Dynamics as Attractors in the Temporal Coordination of Interpersonal Behaviors and Experiences." *Frontiers in Psychology*, vol. 5, Oct. 2014.
- Lewis, Colin. *Practical Bonsai*. Crowood Press, 1990.
- Lucid, Nick. "What the HECK is a Photon?!" . *The Science Asylum*, Nick Lucid, 2018, www.youtube.com/watch?v=73XdlgzSKws&t=188s/.
- M Dougherty. "Forest Bath" . *Olfactory Art Keller*, 2021, www.olfactoryartkeller.com/exhibitions/forest-bath/.
- Maguire, Cindy and Rob McCallum. "Fostering Capabilities through Socially Engaged Art." *Bridging Communities through Socially Engaged Art*, Sabbaghi and Wexler, Routledge Taylor and Francis Group, 2019, 38-47.
- Massey, Doreen B. *For Space*. SAGE, 2005.
- Mencagli, Marco, and Marco Nieri. *The Secret Therapy of Trees: Harness the Healing Energy of Forest Bathing and Natural Landscapes*. Translated by Jamie Richards, Penguin Random House LLC 2019. Rodale Books, July 9, 2019, New York.
- Merriman, P. "Molar and Molecular Mobilities: The Politics of Perceptible and Imperceptible Movements." *Environment and Planning D: Society and Space*, vol. 37, no. 1, pp. 65-82, 2019.
- Mitchell, Dane. "Respiratory event (vapour whale)". Dane Mitchell, 2020, www.danemitchell.co.nz/copy-of-lacuna-1/.
- Mitchell, Dane. "All Whatness is Wetness". Dane Mitchell, 2015, www.danemitchell.co.nz/all-whatness-is-wetness-/.
- Miquel, Paul-Antoine, and Su-Young Hwang. "On Biological Individuation". *Theory in Biosciences*, vol. 141, no. 2, June 2022, pp. 203-211.
- Morris, Bill. "The Underground Forest." *NZ Geographic*, Issue 170, Jul-Aug 2021, www.nzgeo.com/stories/the-underground-forest/.
- Munroe, Alexandra. *The Third Mind : American Artists Contemplate Asia, 1860-1989*. Guggenheim Museum, 2009.
- Naka, John. AZ Quotes, n.d., www.azquotes.com/quote/928543/.
- National Gallery of Art. "Yes No Maybe: Artists Working at Crown Point Press." *National Gallery of Art*, 2013, www.nga.gov/features/yes-no-maybe/cage/ryo.html/.
- NASA. "Systems Thinking About the Earth System". *My NASA Data*, n.d., www.mynasadata.larc.nasa.gov/basic-page/systems-thinking-about-earth-system/.
- Raukura Consultants. "Orua-Poau-Nui / Baring Head Cultural Values Report". Greater Wellington Regional Council, 2011, www.gw.govt.nz/assets/Documents/2022/03/Baring-Head-Cultural-Values-Report.pdf.
- Sencindiver, Susan Yi. "Living Literary Others [Special Issue]." *Otherness: Essays and Studies*, vol. 4, no. 2, Apr. 2014, pp. 1–204.
- Simpson, Peter. "A Walk in the Bush." *Tree Sense : Ways of Thinking about Trees*, Susette Goldsmith, Massey University Press, 2021.
- Stupples, Peter. "GROUND." *Scope: Contemporary Research Topics (Art & Design)*, no. 3, Nov. 2008, pp. 149–57.
- Te Roopu Tiaki. Parangarahu Lakes Area Co-Management Plan and amendment to the GWRC Parks Network Plan. *Greater Wellington Regional Council Te Pane Matua Taiao*, 2012, www.gw.govt.nz/assets/Documents/2022/05/Parangarahu-Lakes-Area-Co-Management-Plan.pdf.
- Wohlleben, Peter, et al. *The Hidden Life of Trees : What They Feel, How They Communicate : Discoveries from a Secret World*. David Suzuki Institute, 2016.
- Zelevansky, Lynn. *Beyond Geometry : Experiments in Form, 1940s-70s*. MIT Press, 2004.