

## **Toi Taiao Whakatairanga: Tukanga: Processes of Navigating the Interface between Art Curation/Research, Forest Ecologies and Māori Perspectives**

**Mark Harvey**

m.harvey@auckland.ac.nz  
Creative Arts and Industries,  
Waipapa Taumata Rau|University of Auckland  
Aotearoa|New Zealand

**Molly Mullen**

Nick.Waipara@plantandfood.co.nz  
m.mullen@auckland.ac.nz  
Critical Studies in Education,  
Waipapa Taumata Rau|University of Auckland  
Aotearoa|New Zealand

**Nick Waipara**

Plant and Food Research  
Aotearoa|New Zealand

**Sophie Jerram**

sophie.jerram@auckland.ac.nz  
Creative Arts and Industries,  
Waipapa Taumata Rau|University of Auckland  
Aotearoa|New Zealand

**Ariane Craig-Smith**

arianefish@gmail.com  
The Kauri Project  
Aotearoa|New Zealand

**Chris McBride**

kauri@thekauriproject.org  
The Kauri Project  
Aotearoa|New Zealand

**ABSTRACT.** What processes are involved in navigating the interface between mātauranga Māori/Māori knowledge frameworks, Western arts, and science perspectives when working to raise public awareness of the plant diseases kauri dieback and myrtle rust? This paper explores how our collaborative project, Toi Taiao Whakatairanga (uplifting the environment through the arts), attempts to do this, focusing on what we have learned about our tukanga (processes). Our project consists of a mixed group of Māori and Pākehā,

curators, arts researchers, social scientists and a biological scientist. We are commissioning Māori artists to respond to the ecological threats of kauri dieback and myrtle rust and to encourage public awareness in some form. Underlying the project are the aims to generate new understandings of how the arts can support mana motuhake (self-determination) for Māori and communities in relation to these plant pathogens.

Keywords: arts; mātauranga Māori; whakawhanaungatanga; ecology

How to cite: Harvey, M., Mullen, M., Waipara, N., Jerram, S., Craig-Smith, A., and McBride, C. (2023). Toi Taiao Whakatairanga: Tukanga: Processes of Navigating the Interface between Art Curation/Research, Forest Ecologies and Māori Perspectives. *Knowledge Cultures*, 11(1), 115–136. <https://doi.org/10.22381/kc11120237>

*Received 1 November 2022 • Received in revised form 1 February 2023*

*Accepted 10 February 2023 • Available online 1 April 2023*

Ehara taku toa i te toa takitahi, he toa takitini. (My success/competence is not as an individual, but as a collective.)

In this article, we ask what processes can be involved in navigating the interface between mātauranga Māori/Māori knowledge frameworks, Western arts, and science perspectives when working to raise public awareness of the plant diseases *Phytophthora agathidicida* (kauri dieback) and *Austropuccinia psidii* (myrtle rust)? We respond to the question by reflecting on our collaborative project, Toi Taiao Whakatairanga (uplifting the environment through the arts, TTW), focusing on what we have learned through our tukanga (processes).<sup>1</sup> TTW involves commissioning and curating Māori artists to engage with kauri dieback and myrtle rust and create artworks that might raise public awareness in some form. The project also aims to generate new understandings of how the arts can interface with Māori knowledge and science to address ecological threats in ways that support mana motuhake (self-determination) for Māori and communities.<sup>2</sup>

In what follows, we (the authors and research team) discuss and reflect on our process of curation and artistic research, considering how we have attempted to collaborate and build relationships in the project so far. We draw from science, social science, the arts, and mātauranga Māori.<sup>3</sup> Some excerpts from our reflective discussions are included (in italics) to enrich our insights and emergent understandings. We also reflect here on three of our commissioned art projects by Natalie Robertson (Ngāti Porou) and Graeme Atkins (Ngāti Porou, Rongomaiwahine), Fiona Apanui-Kupenga (Ngāti Porou), Dan Nathan (Te Roroa) and Charlotte Graham (Hauraki, Waikato, Ngāti Mahuta, Ngai Tai, Ngāti Tamaoho). This article will be divided into the following topics: our approach in relation to Māori knowledge, an outline of our process in collaboration and relationship building, reflections on our creating process, and reflections on science under colonialism in relation to the arts in our project.

Molly Mullen: What do you hope that the commissions being produced are going to achieve?

Chris McBride: I really hope that out of this, we have achieved something for the communities that we're connecting with. That we, the artists involved, and the communities have a better understanding of the problems associated with kauri dieback and myrtle rust. And I hope that some of the works have a long life and sense of legacy. That they continue to be used. And I've heard this of the video [we have curated, *Mate Tipu Mate Rākau* by Fiona Apanui-Kupenga], for example.... That people are using it, people have welcomed something like that because it tells it like it is, and it might be hard-hitting in places, but it really has an impact, and that's what people need to understand around these two major issues.

### **Tukanga through Mātauranga Māori**

Mātauranga Māori or Māori knowledge (Mead, 2003) is, for us, a central spine that connects to all parts of our research. In terms of its well-known root words, 'mātau' means to know something well and the suffix '-ranga' refers to knowledge. As Te Ahukaramū Charles Royal (2012) notes, it is a contemporary term arising from colonial contact to distinguish traditional Māori knowledge from Christian missionary teachings. Other respected Māori leaders, including Jim Docherty (2022), call for the term *mōhio o ngā mātua tūpuna* to be used instead, referring to the knowledge of Māori ancestral teachers. For those of us in TTW who are Māori, our understanding of the term *mātauranga* includes knowledge from ancestors, plus contemporary, growing and developing insights and learnings relating to the Māori world. Underlining this is one interpretation of the Māori proverb 'Ka mua, ka muri,' which often refers to 'looking back in order to move forward.' This *whakatauki* (proverb) guides us towards processes that respect and work with the knowledge and ways of Māori tūpuna (ancestors, for those of us in TTW who are Māori) while adapting and/or attempting to resist contemporary issues and ideas such as ongoing processes of Pākehā colonisation. We propose that this perspective allows our research group, as Māori and Pākehā, to navigate Māori ancestral knowledge for us that are Māori in our group, in addition to all of us respecting traditions of all Māori, while engaging with contemporary learnings around, for instance, European institutional structures.<sup>4</sup>

The beginning of TTW coincided with high-profile public debates over both *mātauranga Māori* in scholarship and the rights to access it (May, 2021; Ngata, 2021). Government ministries, research funders and education providers have started to invest significantly in *Mātauranga Māori*. Some critics have responded with arguments against it being considered 'as science' (ibid). Others have voiced concern about the potential appropriation, exploitation or tokenism of *mātauranga Māori* and about the way this mainstreaming of *mātauranga Māori* could undermine *tikanga* (Māori protocols) around both accessing and using *mātauranga* (Durie 2011; Stewart et al., 2021).

Sophie Jerram: As a Pākehā, how have you found engaging with mātauranga Māori?

Molly: It's been challenging for me ... knowing when to bring in knowledge holders, exploring finding the right knowledge holder, making space when the academic literature is dominated by western scholarship.... But despite the challenges, it feels like we do build or support relationships between the artists and specific knowledge holders, usually following the artist's lead on this.

Throughout the project, we have been acutely aware that project members are in different places with our understanding of mātauranga Māori and our levels of confidence in engaging with it, just as Molly indicates above. Molly's reflection also points to the challenge of negotiating respectful, careful relationships between Pākehā and Māori knowledge, a process that has not always been easy or comfortable for some in our group. We have wrestled with how to provide space for Māori knowledge holders to contribute to this research and what that could involve to make it meaningful to the aims of the project. Because of our cultural mix and varied levels of competency with Māori protocols, we see our research engaging with and interweaving mātauranga Māori, but our methodology is not kaupapa Māori. Kaupapa Māori refers to specific Māori approaches and methodological strategies that are Māori-led; serve purposes/aspirations determined by Māori; are grounded in te ao Māori, involve high levels of understanding, and use of mātauranga, tikanga and te reo Māori (Royal, 2012). Instead, the mix of Māori and Pākehā on TTW's team has influenced the processes we have come to operate by. For instance, we communicate mostly in te reo Pākehā (English), usually meet online, not kanohi ki te kanohi (face to face), as is often Māori custom, and operate mainly through western modernist disciplinary cultural practices such as art practices, curation, social science and science methods. We have, however, engaged with Māori tikanga, such as karakia ritual prayer in te reo Māori, when it is deemed appropriate by our Māori members and partners.

We, therefore, propose our *tukanga* metaphorically operates in a 'hyphen space' that emerges from our interdisciplinary/transdisciplinary and bi-cultural collaborative relationships (Hobbs, 2018; Jones & Jenkins, 2014). The hyphen space, as Alison Jones and Kuni Jenkins (2014) propose, can provide one way to conceptualise a respectful Māori–Pākehā collaboration in research. Such relationships involve 'learning *from* difference [from the hyphen] rather than learning about the Other' (Jones & Jenkins, 2014, p. 480). For TTW, working in the hyphen space has involved actively providing equitable space and priority to Māori research and knowledge practices, along with scholarship, practices and frameworks from our western disciplinary and practice backgrounds. But it has still been challenging for some of us to sustain this while navigating our colonial conditioning and institutional processes, such as the way funding processes are structured. We have found that while tensions can arise from the hyphenated

relationship, these tensions, even if irreconcilable, can produce creative possibilities when we have stood back to learn from/make space for each other (Hobbs, 2018). An example of this is noted by Chris:

Chris: As a Pākehā, I have stood back, listened to them and supported our artists. For instance, it's been really effective to work in partnership with Dan Nathan so that he's able to get on with engaging with his art through his own Māori Kaupapa and whakapapa. I feel he's generated a deep engagement with kauri dieback because of it.

Of the mātauranga Māori perspectives we aim to follow, three include taonga tuku iho, tino rangatiratanga and mana motuhake (Hampton, 2020; Paora et al., 2011). Taonga tuku iho refers to cultural continuance. For TTW, this has informed how we have been working with Māori artists, communities, rōpū (groups) and iwi or hapū in ways that respect the continuity and growth of their, and our, Māori knowledge, including whakapapa (ancestry, genealogies), and tikanga. Tino rangatiratanga refers to the relative autonomy of Māori, and, for us, refers to Te Tiriti o Waitangi (the Māori texts of The Treaty of Waitangi) and its recognition of tangata whenua (indigenous people, of the land; Māori) as having autonomy and sovereignty over their taonga. We attempt to ensure that iwi/hapū and Māori rōpū involved as partners in this research may determine lines of enquiry to serve their interests and that they maintain sovereignty over their data and cultural practices. Finally, we recognise mana motuhake, one definition of which is self-determination, as implied in Te Tiriti o Waitangi (The Treaty of Waitangi), which means the governorship by separate iwi/hapū is paramount, rather than a single set of laws that unify all Māori (Paora et al., 2011).

An illustration of this is our current curating process of Natalie Robertson's ongoing collaboration with her whanaunga/relative, Graeme Atkins. Their project is set around ancestral lands on the East Coast of the North Island, where they are photographing ancient kākara trees (a myrtle species) and collaborating with school students and other local weavers to create traditional Māori fish traps once used to fish for native river fish, including the now extinct Upokoro (the NZ Grayling fish). These traps will incorporate stakes of mānuka and kākara harvested from the area, *Myrtaceae* species generally thought of as ubiquitous and plentiful, with futures now uncertain in the face of myrtle rust incursions.

Just like Chris notes above, we have stepped back from instructing them around how they need to run their project beyond providing them with a deadline and an expectation that they are working through their art project to mobilise iwi awareness and empowerment in relation to myrtle rust in their region. They are engaging with their project through their own iwi kaupapa/tikanga, which helps them in their ongoing Taonga Tuku iho (cultural continuance). This gives them a chance to engage with their own iwi histories and specific protocols to do with these trees, with students and when meeting, teaching, and engaging with each other in their tribal spaces and land. They are doing this through Tino

Rangatiratanga (having autonomy over their project), along with mana motuhake (having self-determination) in running their project in all ways, including how their resources are managed and allocated.

Two other key mātauranga Māori concepts our project attempts to work with are whakawhanaungatanga and auaha, as outlined below.

## **Whakawhanaungatanga**

Ariane Craig-Smith: Previous research for me has been isolating – this is a really supportive and collaborative one, and it provides more openings to more learning. And, to me, this has the potential to produce longer-lasting outcomes for Māori and other communities in developing understandings around these ecological issues.

From the outset of our process, as a central pou (pillar) for us, we have endeavoured to engage and work with whakawhanaungatanga, relationship building, so that we collaborate collectively in our curation and decision-making. A whakawhanaungatanga approach focuses on establishing and maintaining relationships with distinct hapū or iwi and Māori rōpū in culturally appropriate ways (as tika, or correct; Bishop, 1996; Macfarlane, 2006).<sup>5</sup> We aim to engage with it within our research group and with our artists and the iwi/hāpu and rōpū we engage with, towards growing and sharing knowledge through building relationships. We propose this helps to bridge our cultural and personal differences and provides space for Māori in our research to engage with their Kaupapa Māori. Key within the concept of whakawhanaungatanga is its root word ‘whānau,’ which refers to family group, extended family, that sometimes, as in our case, refers to kin-ling relationships like friends. ‘Whaka-’ is a prefix that refers to causing something to happen, and ‘-tanga’ is a suffix or inflection that turns a verb into a noun (Benton et al., 2013; Mead, 2003): ‘Whanaungatanga is established through the process whakawhanaungatanga’ (Rata & Al-Asaad, 2020, p. 220).

Linda Tuhiwai Smith (1999) notes that whanau-based research is insider research (where the researcher is a member of the community in the research, like our commissioned artists, and including Māori researchers), as opposed to ‘outsider research’ (where the researcher comes into or engages with a community they do not belong to). Whanau-based research, Smith (1999) proposes, has to ‘be ethical and respectful, as reflexive and critical,’ along with involving humility (p. 140). She adds that whānau structures in Māori contexts ‘ensure that relationships and issues, problems and strategies can be discussed and resolved’ (Smith, 1999, p. 140). For her, the concept of whānau is one of several aspects of ‘philosophy, values and practices’ at the centre of kaupapa Māori research (Smith, 1999, p. 189). To Smith, all Māori decision-making has been in relation to the whānau principle.

In the words of Arama Rata and Faisal Al-Asaad (2020), who cite Mead (2003) in their exploration of whanaungatanga-based research between Māori and other cultures:

As a fundamental value and regulating principle within Māori culture (Mead, 2003), the importance of whanaungatanga cannot be overstated. Whanaungatanga (along with other tikanga principles) guides social interactions, reinforcing reciprocal obligations and behavioural expectations. However, the ideal of whanaungatanga is ‘difficult to achieve’ as ‘relationships are fragile and need to be nurtured.’ (p. 220)

We have also found it to, at times, be a challenge to achieve whakawhanaungatanga. This can be influenced by the Pākehā colonial contexts we work in where, for instance, pressures from institutional deadlines and norms of individualism can cause stresses on our tukanga.

For us internally, we attempt whakawhanaungatanga with regular catch-ups (usually weekly), where we share our life stories before proceeding with planning and strive for consensus-based decision-making (Seeds for Change, 2022). We attempt to similarly engage with artists we commission, towards guiding them to form and deliver their art projects.

As part of this, we attempt to engage in manaakitanga, which, coming from the root word manaaki, in one sense, means acting with kindness, generosity, and care and support for others. Hospitality is well-known in Māori contexts to be an aspect of manaakitanga. Mason Durie notes that it performs ‘the translation of mana into actions of generosity’ (cited in King, 2017, p. 36). Mana is usually defined as prestige, power, authority, spiritual power, charisma, status and influence, interconnected with health and wellbeing, belonging, and identity, in community and solidarity with others. Manaakitanga involves the uplifting of one’s, or a group’s, mana and reaffirming their mana via actions of generosity, such as kindness, in addition to sharing connections and relationships with others. Manaakitanga is expected in Māori contexts, along with the reciprocity of it (Salmond, 2017). While we have been forced to be online with our work, we have attempted to engage with manaakitanga in all our activities. Whenever possible, we have met kanohi ki te kanohi (face-to-face), and it has often involved the sharing of kai (food) to support our processes of whakawhanaungatanga. Additionally, Sophie and Molly reflect on manaakitanga in our curating through the COVID-19 pandemic as follows:

Sophie: How do you see manaakitanga manifesting in the process of curating?

Molly: I think it’s involved trying to create a space that’s safe – where emotions can be expressed. But it’s still, at times, unresolved – collaboration is not always positive. We have been dealing with tensions as well as positive aspects from past relationships and projects. We have

had to acknowledge this has been a tough time for everyone. But, I think you (the curators) have still prioritised wellbeing and safety while aiming for a high-quality artistic outcome with each artist.

Fiona Apanui-Kupenga's documentary *Mate Tipu Mate Rākau* (2021), commissioned by Toi Taiao Whakatairanga and featuring conservationist Graham Atkins, has at all stages of its creation developed with the intention of whakawhanaungatanga. The documentary focuses on Atkins' observations, with his iwi and community, of myrtle rust impacting on the taonga (treasure) myrtle species ramarama in the East Coast region, as it heads towards local extinction due to myrtle rust. The video has reached a wide range of audiences and, we propose, contributed to evolutions in public policy towards supporting and funding a hapu-led response programme. The development of the video began with us developing a working relationship and commission with artist Natalie Robertson, who, as part of our relationship-building, requested we invite Apanui-Kupenga to create a work. Apanui-Kupenga's project has involved not only relationship building and brainstorming with us, but it has required this to happen extensively with Atkins on the ground as a local expert in the region. We propose that the resultant video is due to the depth of connection between Apanui-Kupenga, her crew, and Atkins, as is evidenced, for instance, through the emphasis on personal, emotional storytelling in the video. We argue that the same level of conceptual and personal depth might not have been achieved through this commission without the whakawhanaungatanga between all of us involved.

### Figure 1

*Mate Tipu Mate Rākau*



*Note:* Photo/video still of Fiona Apanui-Kupenga's documentary *Mate Tipu Mate Rākau* (2021), with Graeme Atkins. Copyright 2022 by Chris McBride (Toi Taiao Whakatairanga) and Fiona Apanui-Kupenga.



We have come to understand that whakawhanaungatanga in research and curation involves specific, intentional actions or practices, which need attention, effort and resources to sustain.

Molly: From the start, and in the ethics application process, we aim to prioritise the face-to-face kanohi ki te kanohi relationship and try to keep the transactional side, the paperwork, to after the trusting human relationship has been established, which is the reverse of Western research ethics....

Sophie: It's the same in curation, but it's not the same in other research fields, so we can say it is a kind of relational labour being used....

Molly: I think that's really useful for drawing attention to all the labour that goes into creating and sustaining caring relationships across the project and how much time and effort that takes....

Relational labour, which Sophie and Molly's conversation reflects on in relation to our whakawhanaungatanga processes, is widely regarded to be an extension of the sociological concept of emotional labour. Emotional labour describes/explains the need to control or manipulate emotions in contemporary work, particularly in service industries and online. Relational labour comes from Nancy Baym (2015), who looks specifically at the ways performers cultivate ongoing connections with audiences, particularly in social media/e-commerce (see Hardt & Negri, 2005). Both concepts are either used as a way to identify what can be seen as negative aspects of work under Western market-based systems or uncritically identifying how competency in emotional and relational labour can be developed (Baym, 2015). This is relevant in our project – in terms of the widely considered neoliberalised university and its performance/performative frameworks and how we trade our mana and the relationships and networks we have for the sake of research projects and other status-raising activities. But these concepts do not fully explain what relational labour means in the arts. We are doing more than honing relationships to serve economised outcomes or the accumulation of individual or institutional capital. The concept of emotional labour has been used in the arts, particularly in relation to social and participatory art practices – and for us, we see it as relevant here. What comes through here is about a focus on care, nurture and creativity, and the distinct skills or qualities of artists working in highly collaborative and participatory ways.<sup>6</sup>

The idea of relational labour is implicit in much writing on artistic collaboration and, particularly, cross-cultural and cross-disciplinary collaboration, but it has not been connected to whakawhanaungatanga in academic contexts prior to this. We experience it in our project, for example, in navigating colonial institutional requirements such as ethics processes, in addition to negotiating our own points of

difference and having to work through different opinions in order to seek consensus around project-related decisions.<sup>7</sup>

### **Auaha**

While the notion of auaha (to create and shape) can be seen to apply across many contexts, and all things we do from a mātauranga Māori standpoint, we explore it here in relation to creative arts making and curation. One of the many ways that auaha can be seen to operate in TTW is in artistic research. Some may see this as being creative practice-led research (Smith & Dean, 2009), where the work of our artists and our processes of curation lead our reflections and writing. We propose it goes further in TTW, where we understand the arts making and curation themselves to each comprise research. As Henk Slager (2021) notes, in artistic research, the creative work is ‘critical practice,’ that is itself research, generates knowledge and understandings, and is emergent. We don’t always know what our commissioned artists will produce from the outset, but we do attempt to guide them with our curating through our themes around biological forest threats with science-based knowledge, towards experimenting and resolving their creative iterations towards their final works.

Sophie: This project is different to previous art-commissioning projects. I have never worked in a group where so many people have a say over a lot of key things. I normally work on my own or with one other co-curator. This is larger and can be complex to navigate artistic decisions through. I am aware that you should never commission art through a committee. But it feels easier now we have structures in place, like lead curators for each project. Prior to this, it felt unwieldy.

It feels different to other research/practice projects too. I have done a few research projects for government, and this is different in the way that it feels like getting together with whānau. There are lots of caring and friendly relationships, and time is spent on this before we get into our work, much more time. [...] It has felt in a way less output driven, interestingly, despite creating material.

As Sophie implies, curating is a multi-faceted process. It often involves providing and facilitating platforms for artists to present in, money, contacting the artist, contracting, guiding, facilitating in relation to specific themes and navigating the emotional waves of the artist and us to deliver the project. Finding a site and developing relationships with the site-holders is often a way to bridge and shield the artists from organisational constraints and bureaucracy. The etymology of *curare* includes to care for as well as to bring together – which are themselves aims for Toi Taiao Whakatairanga.

We’re attempting to refine our curatorial approach, and who and where we commission to make artworks, through what can be seen as a form of action cycling. In Western social sciences, this term comes from action research, where

the researchers refine the project in iterative cycles over time based on learnings and new insights (Haseman, 2007). Creative research is often understood as involving similar, if less linear, cycles, as an ‘iterative cyclic web’ (Smith & Dean, 2009). As Sophie notes above, one example of this is how we have evolved our roles so that we each have a slightly different area of focus as curators and researchers, which has allowed us to speed up our process, in contrast to how we originally set out, with most of us sharing all roles.

We attempt to provide alternatives to dominant colonial frameworks in artistic research by working with mātauranga Māori and by prioritising Māori artists, towards contributing to Māori perspectives in relation to these plant pathogens. A contingent context of this for us is that the arts and curation can be understood to be modern disciplinary terms, brought to Aotearoa through Western colonisation, that are usually subject to colonial power structures and norms – not unlike dominant notions of science. While our project may be considered to be decolonial (Jackson, 2020; Thomas, 2020; Smith, 1999), we acknowledge ongoing debates around whether or not the notion of decolonisation, as with postcolonialism, will only ever be limited to being a goal, and at times a privileged academic exercise, that, despite its call to undo colonial exploitation, might never be completely possible (Dhillon, 2021; Muñiz-Reed, 2022). This is considering how entrenched and deeply structured colonisation is in the arts, science, and our Western-based institutions (Dhillon, 2021; Muñiz-Reed, 2022; Schiebinger, 2005). For instance, us working with ‘the arts’ and ‘artists’ specifically references a discipline that in contemporary Western contexts is not understood as completely interconnected with everything and all things we do, in inverse to mātauranga Māori, where all things are interconnected ecologically, including cultural practices.<sup>8</sup> For us, we are attempting to contribute to ongoing processes of reclaiming space for Māori voices that have often been ignored in the arts, science, and public awareness around invasive forest pathogens and wellbeing. An influence here is Lesley Rameka and Kura Paul-Burke (2015), who call for reclaiming traditional Māori ways of knowing towards reframing our realities.

Additionally, we look to negotiate with what can be seen as constructive opportunities that some colonial processes and institutions might offer our artists and their projects, like (non-commercial) public art galleries, towards empowering our artists and engagements with te ao Māori (the Māori world). Some of the dominant colonial structures and processes we are attempting to move away from include market-driven and competitive Western arts norms (Beech, 2015), which can be individualist, exclusive and often result in limiting what kinds of arts are presented in public (Bishop, 2012) – to that which ‘sells’ and for instance can be put on the walls of rich (mainly Pākehā) arts patron’s homes.

Molly: How do you see Toi Taiao Whakatairanga’s relationship with curating?

Sophie: Curatorial practice can be an entry to spatial commoning through the establishment of theatre, performance events and festivals, can generate resonance and shared experience and create contact zones. However, arts processes need to be aligned with stronger forces to secure change. By being more aligned with a relationship focus, we are reminded of kaitiakitanga [guardianship, in this case of forests]...

While we involve a range of art practices towards building public awareness around our themes, including video, print-making, drawing, sound, painting, photography, text (such as poetry), and public workshops, for us – as implied above – whakawhanaungatanga is key to which approaches are developed with our artists. (Our strategies towards public awareness through these arts can take many forms for us, including micro-level iwi or hapū engagement, to macro-level public campaigning, through events at galleries, publicity and social media.) Our emphasis on relationship building and collaboration can be seen to match a definition of ‘social practice’ or ‘socially engaged practice’ in art, where people are a key art medium (Bishop, 2012; Tate, 2022). We do not seek this description for Toi Taiao Whakatairanga because social practice in art is often known to fail in its call to undo processes of capitalism, despite how it calls for collectivity, similarly Nicolas Bourriaud’s notion of ‘relational aesthetics’ (see Davis, 2013). Social practice is critiqued for its adherence to colonial modes of exploitation, privileged white middle-class artists receive the credit and profits for their collaborative projects with indigenous/non-white and/or less-economically privileged communities. Our attempts to situate our project through Māori contexts can be seen to be in conversation with Miwon Kwon’s (2004) call to situate art that responds to the contexts of a site and to share space with communities politically, culturally, and otherwise, beyond Western art modernism’s notions of right and wrong.

Charlotte Graham’s project *Shared Moments* (2021–2022) has manoeuvred from heading towards producing painting and/or print-based work to being a process of engagement and encounter, evolved through a series of public workshops around the science on these ecological pathogens, especially myrtle rust. She began with an ecology seminar (wānanga) by Nick Waipara and gathering reflections from participants of all ages, through print-making, drawing and text, towards thinking about a final art object-based work. Through a series of action cycles, including whakawhanaungatanga with some of our curatorial team, her project has evolved into being about the relationship, collaboration, collective idea formation and exchange with her workshop participants as they collectively listen to knowledge delivered by scientists and other forest workers, explore through text and spoken word their response to the information, then make prints from Graham’s designs of plants and creatures of the ngahere, which can be taken home by participants. This has been delivered across several workshops, both with the wider public and with different hapū and whānaunga (her extended relations form her hapū, including Ngāti Poua, Waikato and Te Kawerau a Maki iwi). Rather than

her work being a final art object, this process has itself been her work – where awareness building, knowledge exchange, collaboration and mutual understanding have been generated between her and her participants. Her process – an adaptive one that can be delivered in many contexts and to different groups – can be seen to be an example of Nick’s observation below that our project encourages our artists to engage beyond art making into giving mātauranga Māori a ‘fuller breath’ that empowers communities to engage with these ecological threats. A possible next step is to re-present some of the collectively generated text in a subsequent exhibition with us as an acknowledgement of this whakawhanaungatanga they have together experienced, and empowerment of the voices of these participants as they learn about forest pathogens and consider their potential role as kaitiaki (caregivers and guardians) of our forests.

**Figure 2**  
*Shared moments*



*Note.* Photo of Charlotte Graham’s *Shared Moments* (2021–2022).  
Copyright 2022 by Charlotte Graham.

Nick Waipara: This project, for me, empowers the world of mātauranga Māori, giving it fuller breath, like wairau [spirit and feeling] and tikanga. It's wider than art, by recognising the artists we commission as knowledge holders and empowering them with their whakapapa, for instance.

There is a lot of sharing, and mana, and respect between us and the artists and participants. It brings new life to mātauranga Māori for me, helping to move it to a new space.

## **Colonial Science, Mātauranga and the Arts**

Mark: How do you see what we are doing in relation to Western science?

Nick: Colonial science is often limited in its conceptual and cultural scope, and a project like this, I suggest, provides a much wider space for thinking about it in relation to the world. And our project is helping to open it up and make it more accessible to me. I think most scientists have experienced people [the public that is] turning away when they try to share their work, and our work is so far showing how the sharing can work.

As a scientist, I find that working in the arts, science and mātauranga Māori space is right now still incredibly unique. That we are doing this in our project to me reflects the intersection of people in our project that come from different spaces. There's a generosity here across all of our sectors that we bring to the table here, and this, I feel, helps.

Our project does not attempt to generate science specifically, but through the arts, it seeks to respond to it, be in conversation with it and generate open-ended questions in relation to it, with engagements with specialist scientists.

We use the term colonial science referring to 'any science done during the colonial era that involved Europeans working in a colonial context' (Schiebinger, 2005, p. 52), which can function as an agent of Western colonialism (Barnes et al., 2021) – that we argue is a norm, as with colonisation in general in Aotearoa. As Tina Ngata (2021) argues, unless science examines its histories of erasing indigenous knowledge, it's at risk of perpetuating the same power structures and wiping out indigenous knowledge. In response to recent debates around the inclusion of mātauranga Māori (see Hikuroa, 2017; Rauika Māngai, 2022; Stewart, 2020), we align with Simon Lambert et al. (2018), who argue that mātauranga Māori is 'dynamic and expanding,' in 'contrast with "Western" science and philosophy' and has a critical role to play in forest conservation and forest science research in Aotearoa (p. 110).

The artists we have curated have been chosen because of their interest, if not expertise, in environmental and ecological perspectives, in addition to their personal grounding in or exploration of Māori knowledge. Each one of them brings

their knowledge and skills in relation to te ao Māori, into their work, in addition to their whakapapa. For many of them, engaging with science is new, and so our whakawhanaungatanga with them and with scientists and other researchers appears to be of significance in helping them to realise their projects for the public. Without curated arts providing a platform and access to science knowledge-holders, in addition to attempting to facilitate open-ended, emergent, conceptual approaches, we suggest our project might only have been able to illustrate the contingent science rather than engaging in processes aimed at growing and developing the expanded fields of art, science, and mātauranga Māori and public ecological awareness. We propose here a dialogical approach where artists, curators, scientists and our audiences are offered the opportunity to see knowledge and learnings around these forest pathogens as evolving, just as it is in the lab and in Māori-centred conservation rōpū.

Our artists' projects and associated events can be seen to operate in a range of ways in relation to scientific knowledge. Inspired by the work of Cucuzella et al. (2021), we are starting to theorise these creative, pedagogic approaches which, we propose, include eco-critical public pedagogies, ecological pedagogies of embodied attunement, and eco-dialogic pedagogies (Clover, 2022; Kossak, 2021; Page, 2021). Eco-critical public pedagogies, for example, focus on social and environmental justice, drawing from people's experiences to help generate change and solutions to problems. An example can be a karakia, generated through the project of one of our artists, Tanya Ruka, by her mother, Jane, to call upon myrtle rust to leave a plant/tree. Ecological pedagogies of embodied attunement refer to how the arts can focus on a sense of embodied learning of ecological issues that can work in 'slow time' – a description that can be applied to Charlotte Graham's wānanga (workshops) with text and print-making in reflection on myrtle rust, and the meanings of forests' health for participants. Eco-dialogic pedagogies are where the arts engage with different perspectives, including conflicting ones, through tactics like juxtaposition and debate. This can be seen in Dan Nathan's video, where he presents contrasting images and perspectives to invite reflection around the impact our engagement with the natural world is having on forests. Such Eco-dialogic pedagogy focussed artworks can be seen to,

explicitly establish critical dialogues between Western science and indigenous environmental thought [and] seek to reconnect a disembodied, abstracted scientific knowledge with the cultural, social, spiritual and ethical spheres of experience from which it has been systematically excluded in the West since the Enlightenment. (Page, 2021, p. 15)

Nick: It's really exciting. The artists show they really want to learn about the science. There's nothing more exciting for me than seeing them, like Dan Nathan looking down the microscope at Kauri dieback spores and lighting up! Their descriptions and responses to these pathogens have

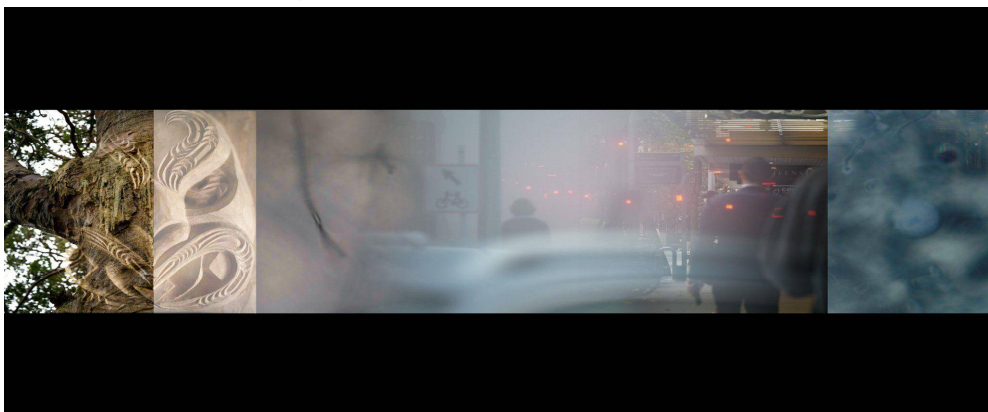
given me new insight in how to see the science, to conceptualise it in new ways, both through toi [arts] and in relation to their Māori whakapapa. We scientists need artists, especially Māori artists like them, for this bigger-picture creative conceptualising that we just don't do ourselves. This, to me, manifests through their own work too.

We're dealing with some ancient whakapapa in this science, and I find working with these artists is helping us and the public to listen to it, to remind us of it, and it can help us to respect it.

Dan Nathan, like some of our other commissioned artists, has spent an extensive amount of time communicating and meeting with scientists working with these pathogens towards the development of his video work *Te Tukumate: The Pathogen*. This video is focussed on the behaviour of the wider public, and humans in general, how we engage and care – or don't – with ecology, in particular kauri forests, and how this impacts on this sensitive habitat. This has been developed in conjunction with him spending considerable time in hui (meetings) and wānanga with his iwi, in planning, sharing and learning about these pathogens and the potential directions his project and its collaborations may take. Feeding this has been his knowledge exchanges and mutual learnings with scientists in the lab, just as Nick notes above. Feeding this also has been his whakapapa including pūrākau (stories) from his iwi, his learnings from Māori art forms, his own observations of the wider public and their behaviour in the forest, various hui and meetings that our team has had with him individually and with the members of his iwi, sharing and exchanging knowledge in arts, science and mātauranga. This process began through building relationships with him and his iwi over several years, long before this project.

### Figure 3

*Te Tukumate: The Pathogen*



Note. Photo of Dan Nathan's *Te Tukumate: The Pathogen* (2022). Copyright 2022 by Dan Nathan.



Nick: The time we have taken to develop what we are doing through our relationships with each other and our artists, embracing te ao Māori in this sense, much more time than the usual science [and arts] projects, where we normally hit the ground running and are expected to produce with no time to think or plan. This has led to a more genuine and authentic process of engagement and collaboration, with greater learning than the usual projects in my experience.

As Nick implies, it has taken significant amounts of time to build our relationships as a core aspect of whakawhanaungatanga, which for us has provided time enough to develop depth of understanding, trust, and organisational, conceptual and material refinement, just as in the case of working with Dan Nathan. From a Māori perspective, it takes the time it needs to, to build the research process. While our dominant colonial institutions often do not align nor accept the timeframe needed for this, we have persisted in allowing time for things to happen amidst our personal, whanau and wider contingent factors, such as COVID-19, causing significant delays but also creating new opportunities and influences on the development of our project.

## **Conclusion**

Ariane: That our relationship with artists should open them up to their creative practices, contexts and to the potential of the situation, the artist's voice is always valued. A critical part of curating, to me, is about helping to form relationships with an audience and to be a connector between artist and audience. Also, nurturing the relationships between artists and scientists is fundamental, as the sum is greater than the parts.

Nick: Āe [yes], the Kaupapa around mātauranga Māori is katoa, or all, for instance, how tikanga, the knowledge of our tīpuna (ancestors) and ancient forest knowledge is approached. To me, a project like this gives mātauranga Māori the fuller breath, where we can begin to overcome some of the colonial pigeon-holes to generate some unique insights into myrtle rust and kauri dieback, that come from and for the people.

The key to the tukanga of Toi Taiao Whakatairanga is whakawhanaungatanga. We propose that it is essential to building deep relationships, trust, understanding, mutual learning and realising how the arts projects we commission can engage with the science around myrtle rust and kauri dieback and, in turn, contribute to building public awareness. By engaging with mātauranga Māori through a hyphen-space of cultural engagement and commissioning Māori artists, we are attempting to help towards a process of reclaiming te ao Māori within the spaces we are engaging in here (in relation to the arts and science).

Our project is based on action cycles, through which the artists and curators are working with a mixture of eco-critical public pedagogies, ecological pedagogies of

embodied attunement, and eco-dialogic pedagogies approaches. We propose that the iterative, whanaunga-based approach allows for auaha (creativity) and the emergence of insights and understandings between curators, the artists and the rest of our team. Each cycle proactively involves conversation between Māori knowledge and colonial science and situated contexts as we continue to refine how we can engage with strategies for building public awareness through the arts.

While our processes of relationship building and relational labour may not always be ‘plain sailing,’ by giving the process’ the time that it needs,’ from a Māori perspective, to flourish and constructively resolve issues (as action cycles in one sense) we are attempting to build mana-enhancing processes of collaboration and consensus-building. This, we propose, is aiding our attempts to build deep mutual understanding with the artists, scientists, Māori rōpū and communities we encounter and partner with, towards empathetic arts projects that help with knowledge exchange, education and reflection around myrtle rust and kauri dieback.



Mark Harvey, <https://orcid.org/0000-0002-5383-7512>

Sophie Jerram, <https://orcid.org/0000-0003-4768-9805>

Chris McBride, <https://orcid.org/0000-0001-5784-9767>

Molly Mullen, <https://orcid.org/0000-0001-6567-3116>

Nick Waipara, <https://orcid.org/0000-0002-8193-8302>

### **Funding**

This work is funded by the Ministry of Business, Innovation and Employment (Mobilising for Action theme of the Ngā Rākau Taketake programme of the Biological Heritage National Science Challenge in Aotearoa/New Zealand C09X1817).

### **Author contributions**

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

### **Conflict of interest statement**

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

### **Notes**

1. Toi Taiao Whakatairanga (TTW) is part of the Mobilising for Action and Ngā Rakau Taketake research umbrellas. Our team consists of a mixed group of Māori and Pākehā (New Zealand Europeans mainly of British descent), mixed-gender, curators, community and arts researchers, social scientists, a biological scientist, independent arts practitioners and several institutions. We are entering our third and final year of our project as we write this.

2. All te reo Māori (Māori language) definitions have been cross-checked with *Te Aka: Māori Dictionary* (2022) and our Māori members of our project.

3. Transdisciplinary and cross/intercultural research is becoming more common. By examining our process, we share insights into working across and through several research fields and domains of knowledge, while acknowledging that such processes will always be unique, new and emergent process. We builds on arts-science-ecology projects that some of us are connected to, including Te Waituhi ā Nuku (2022) and The Kauri Project (2022).

4. An example of this is how we are hosted through a University while working with Māori contexts. Like with all other Universities in Aotearoa, the former's processes can be seen to be influenced by notions of accountability, profit and productivity influenced heavily by the European enlightenment and modern period, which we have found does not align with the Māori protocol of gifting (koha), for instance, in limiting amounts that can be gifted for Māori related research projects, in contrast to Māori tikanga (protocols) that does not place financial limits. We have navigated this by planning projects and financial transactions in advance so that invoicing is set up, while giving feedback in a review on how koha can be accommodated in more culturally sensitive ways towards guiding the University to more deeply embodying Kaupapa Māori.

5. Perhaps a parallel anecdote in for us in this perspective is the Blackfoot indigenous model of being in the world that is inverse of Maslow's hierarchy of needs, the Blackfoot model that he can be seen to have misappropriated (Ravilochan, 2021), where doing things for the wider collective and living for this is the foundation of being. This applies to mātauranga and kaupapa Māori, where one is not traditionally seen as an individual but only always part of the collective, and living for the collective.

6. This scholarship highlights the emotional demands sustaining such qualities places on both artists and audiences or participants (Preston, 2013).

7. In one sense, our relationship building can be seen to have applied Marxist conflict theory (Campbell, 2021), whereby a degree of disagreement can be seen to be productive through, with us taking the time to perform the labour to resolve it and reach consensus.

8. The concept of one being an 'artist' is a Western colonial one, as it is well known in Māori contexts not to have been a clear occupational distinction in pre-Pākehā times, as it was woven through people's daily lives, such as in rituals like karakia (prayers) and waiata (song).

## References

- Apanui-Kupenga, F. (2021). *Mate tipu mate rākau* [Documentary film]. Craig-Smith, A., Harvey, M., Jerram, S., Mullen, M., & Waipara, N. [curators]. Te Amokura Productions & Toi Taiao Whakatairanga.
- Barnes, H. M., Harmsworth, G., & McCreanor. (2021). Indigenous-led environmental research in Aotearoa New Zealand: Beyond a transdisciplinary model for best practice, empowerment and action. *AlterNative: An International Journal of Indigenous Peoples*, 17(2), 306–316. <https://doi.org/10.1177/1177180121101939>.
- Baym, N. (2015). Connect with your audience! The relational labour of connection. *Communication Review*, 18(1), 14–22. <https://doi.org/10.1080/10714421.2015.996401>
- Beech, D. (2015). *Art and value: Art's economic exceptionalism in classical, neoclassical and marxist economics*. Haymarket.

- Benton, R., Frame, A., & Meredith, P. (2013). *Te mātāpunenga: A compendium of references to the concepts and institutions of Māori customary law*. Victoria University Press.
- Bishop, C. (2012). *Artificial hells: Participatory art and the politics of spectatorship*. Verso.
- Bishop, R. (1996). *Whakawhanaungatanga: Collaborative research stories*. Dunmore.
- Campbell, B. (2021). Social justice and sociology theory. *Society*, 58(5), 355–364. <https://doi.org/10.1007/s12115-021-00625-4>
- Clover, D. E. (2002). Environmental adult education. *Adult Learning*, 13(2–3), 2–6. <https://doi.org/10.1177/104515950201300201>
- Cucuzzella, C., Hazbel, M., & Goubran, S. (2021). Activating data through eco-didactic design in the public realm: Enabling sustainable development in cities. *Sustainability*, 13(8), 4577. <https://doi.org/10.3390/su13084577>
- Davis, B. (2013). A critique of social practice art: What does it mean to be a political artist? *International Socialist Review*, 90. <https://isreview.org/issue/90/critique-social-practice-art/index.html>
- Dhillon, S. (2021, September 25). *An immanent critique of decolonisation projects*. Convivial thinking. <https://convivialthinking.org/index.php/2021/09/25/critique-of-decolonisation-projects/>
- Docherty, J. (2022, June 30). [No title.] [Conference presentation]. Māori biosecurity symposium: Te wānanga whakamātaki, New Plymouth. <https://ttw.nz/maori-biosecurity-symposium/>
- Durie, M. (2011). *Ngā tini whetū: Navigating Māori futures*. Huia.
- Hampton, S. (2020). Rights and resurgence in Aotearoa New Zealand: A case study. *MAI: New Zealand Journal of Indigenous Scholarship*, 9(2), 97–110. <http://doi.org/10.20507/MAIJournal.2019.9.2.1>
- Hardt, M., & Negri, A. (2005). *Multitude: War and democracy in the age of empire*. Penguin.
- Haseman, B. (2007). Rupture and recognition: Identifying the performative research paradigm. In E. Barrett & B. Bolt (Eds.), *Practice as research: Context, method, knowledge* (pp. 147–158). I. B. Tauris.
- Hikuroa, D. (2017). Mātauranga Māori: The ūkaipō of knowledge in New Zealand. *Journal of the Royal Society of New Zealand*, 47(1), 5–10. <https://doi.org/10.1080/03036758.2016.1252407>
- Hobbs, R. A. (2018). *Ngā puia o Ihumātao* (Doctorate in Fine Arts thesis, University of Auckland). <https://researchspace.auckland.ac.nz/handle/2292/37033>
- Jackson, M. (2020). Where to next? Decolonisation and stories of the land. In B. Elkington & J. Smeaton (Eds.), *Imagining decolonisation* (pp. 133–155). Bridget Williams.
- Jones, A., & Jenkins, K. (2014). Rethinking collaboration: Working the indigene-coloniser hyphen. In N. K. Denzin, Y. S. Lincoln & L. T. Smith (Eds), *Handbook of critical and indigenous methodologies* (pp. 471–486). Sage.
- Kauri Project, The. (2022). *Kauri ki uta, kauri ki tai*. <https://www.thekauriproject.org/>
- King, L-M. (2017). *Indigenous social work practice development: The contribution of manaakitanga to mana-enhancing social work practice theory* [Doctoral thesis, University of Otago]. <https://ourarchive.otago.ac.nz/handle/10523/8589>
- Kossak, M. (2021). *Attunement in expressive arts therapy: Toward an understanding of embodied therapy* (2nd ed.). Charles Thomas.

- Kwon, M. (2004). The wrong place. In C. Dogherty (Ed.), *Contemporary art: From studio to situation* (pp. 29–42). Black Dog.
- Lambert, S., Waipara, N., Black, A., Mark-Shadbolt, M., & Wood, W. (2018). Indigenous biosecurity: Māori responses to kauri dieback and myrtle rust in Aotearoa New Zealand. In J. Urquhart, M. Marzano, & C. Potter (Eds), *The human dimensions of forest and tree health* (pp. 109–137). Palgrave Macmillan. [https://doi.org/10.1007/978-3-319-76956-1\\_5](https://doi.org/10.1007/978-3-319-76956-1_5)
- Macfarlane, A. H. (2006). Becoming educultural: Te whakawhitinga o nga matauranga: Interfacing the knowledge traditions. *Kairaranga*, 7(2), 41–44. <https://doi.org/10.54322/kairaranga.v7i2.58>
- May, S. (2021, August 1). *Dismissing mātauranga Māori: Racism and arrogance in academia*. Newsroom. <https://www.newsroom.co.nz/ideasroom/dismissing-matauranga-maori-racism-and-arrogance-in-academia>
- Mead, H. M. (2003). *Tikanga māori: Living by Māori values*. Huia.
- Muñiz-Reed, I. (2022). Thoughts on curatorial practices and the decolonial turn. *On Curating*, 35. <https://www.on-curating.org/issue-35-reader/thoughts-on-curatorial-practices-in-the-decolonial-turn.html>
- Ngata, T. (2021, July 25). *Defence of colonial racism*. Tina Ngata. <https://tinangata.com/2021/07/25/defending-colonial-racism/>
- Page, J. (2021). *Decolonising science in Latin American art*. UCL Press.
- Paora, R., Tuiono, T., & Flavell, T. (2011). Tino rangatiratanga and mana motuhake: Nation, state and self-determination in Aotearoa New Zealand. *AlterNative: An International Journal of Indigenous Peoples*, 7(3), 246–257. <https://doi.org/10.1177/117718011100700305>
- Preston, S. (2013). Managed hearts? Emotional labour and the applied theatre facilitator in urban settings. *Research in Drama Education: The Journal of Applied Theatre and Performance*, 18(3), 230–245. <https://doi.org/10.1080/13569783.2013.810929>
- Rameka, L., & Paul-Burke, K. (2015). Reclaiming traditional Māori ways of knowing, being and doing, to reframe our realities and transform our worlds. *Counterpoints*, 500, 261–271.
- Rata, A., & Al-Asaad, F. (2019). Whakawhanaungatanga as a Māori approach to indigenous-settler of colour relationship-building. *New Zealand Population Review*, 45, 211–233. [https://www.waikato.ac.nz/\\_\\_data/assets/pdf\\_file/0004/676201/8fc2bb0a753d9621b60d98edc735cd4389adc0e0.pdf](https://www.waikato.ac.nz/__data/assets/pdf_file/0004/676201/8fc2bb0a753d9621b60d98edc735cd4389adc0e0.pdf)
- Rauika Māngai. (2022). About Rauika Māngai. <http://www.rauikamangai.co.nz/about/>
- Ravilochan, T. (2021, June 15). *The Blackfoot wisdom that inspired Maslow's hierarchy of needs: How indigenous ways of life may offer us a way forward*. Esperanza Project. <https://www.esperanzaproject.com/2021/native-american-culture/the-blackfoot-wisdom-that-inspired-maslows-hierarchy/>
- Royal, T. A. C. (2012). Politics and knowledge: Kaupapa Māori and mātauranga Māori. *New Zealand Journal of Educational Studies*, 47(2), 30–37. <https://search.informit.org/doi/10.3316/informit.446746674901479>
- Salmond, A. (2017). *Tears of Rangi: Experiments across worlds*. University of Auckland Press.
- Schiebinger, L. (2005). Forum introduction: The European colonial science complex. *Isis*, 96(1), 52–55. <https://doi.org/10.1086/430677>
- Seeds for Change. (2022). *Consensus decision-making*. <https://www.seedsforchange.org.uk/consensus>

- Slager, H. (2021). Editorial. In *The postresearch condition* (pp. 2–4). Metropolis M Books.
- Smith, H., & Dean, R. (2009). *Practice-led research, research-led practice in the creative arts*. Edinburgh University Press.
- Smith, L. T. (1999). *Decolonial methodologies: Research and indigenous people*. ZED.
- Stewart, G. (2020). Mātauranga Māori: A philosophy from Aotearoa. *Journal of the Royal Society of New Zealand*, 55(1), 18–24. <https://doi.org/10.1080/03036758.2020.1779757>
- Stewart, G., Smith, V., Diamond, P., & Paul, N. (2021). Ko te tika, ko te pono, ko te aroha: Exploring Māori values in the university. *Te Kaharoa*, 17(1), 1–25. <https://doi.org/10.24135/tekaharoa.v17i1.344>
- Tate. (2022). *Socially engaged practice*. Tate Modern. <https://www.tate.org.uk/art/art-terms/s/socially-engaged-practice>
- Te Aka. (2022). *Māori dictionary*. <https://maoridictionary.co.nz/>
- Te Waituhi ā Nuku. (2022). *Te waituhi ā nuku: Drawing ecologies*. <https://www.drawingopen.com/te-waituhi-a-nuku-drawing-ecologies>
- Thomas, A. (2020). Pākehā and doing the work of decolonisation. In B. Elkington & J. Smeaton (Eds.), *Imagining decolonisation* (pp. 107–132). Bridget Williams.