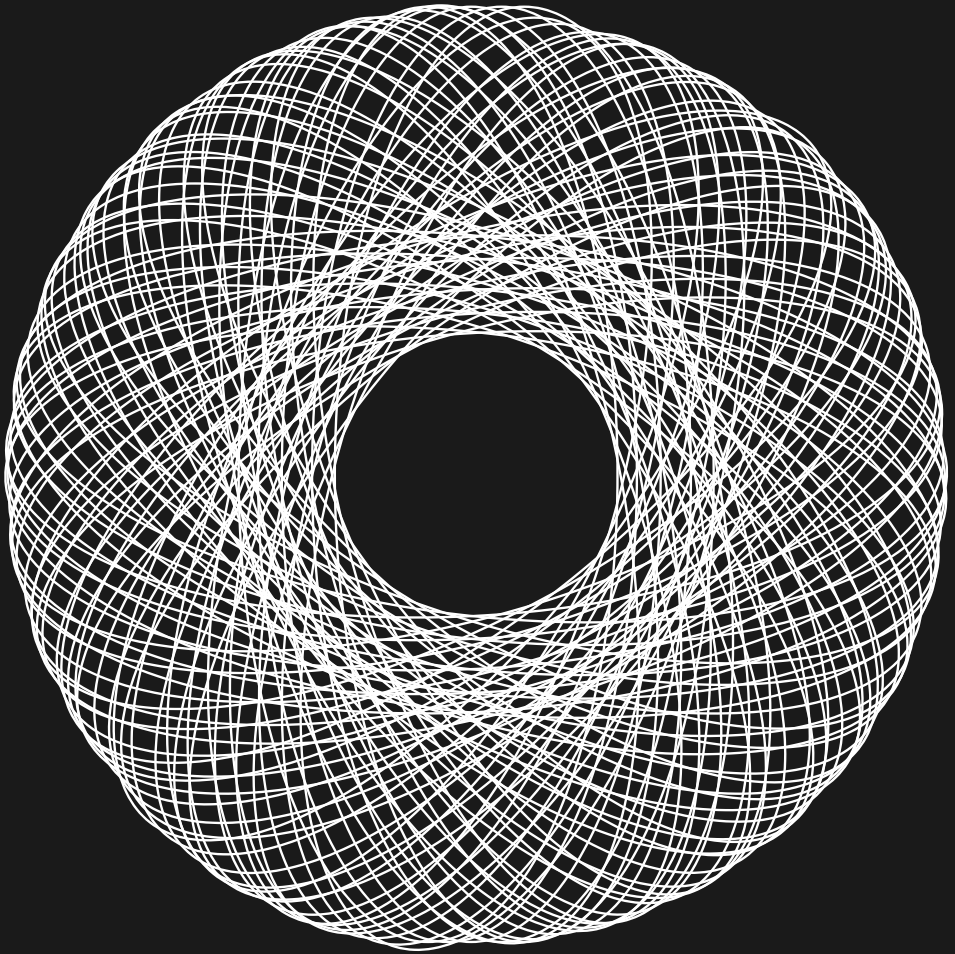


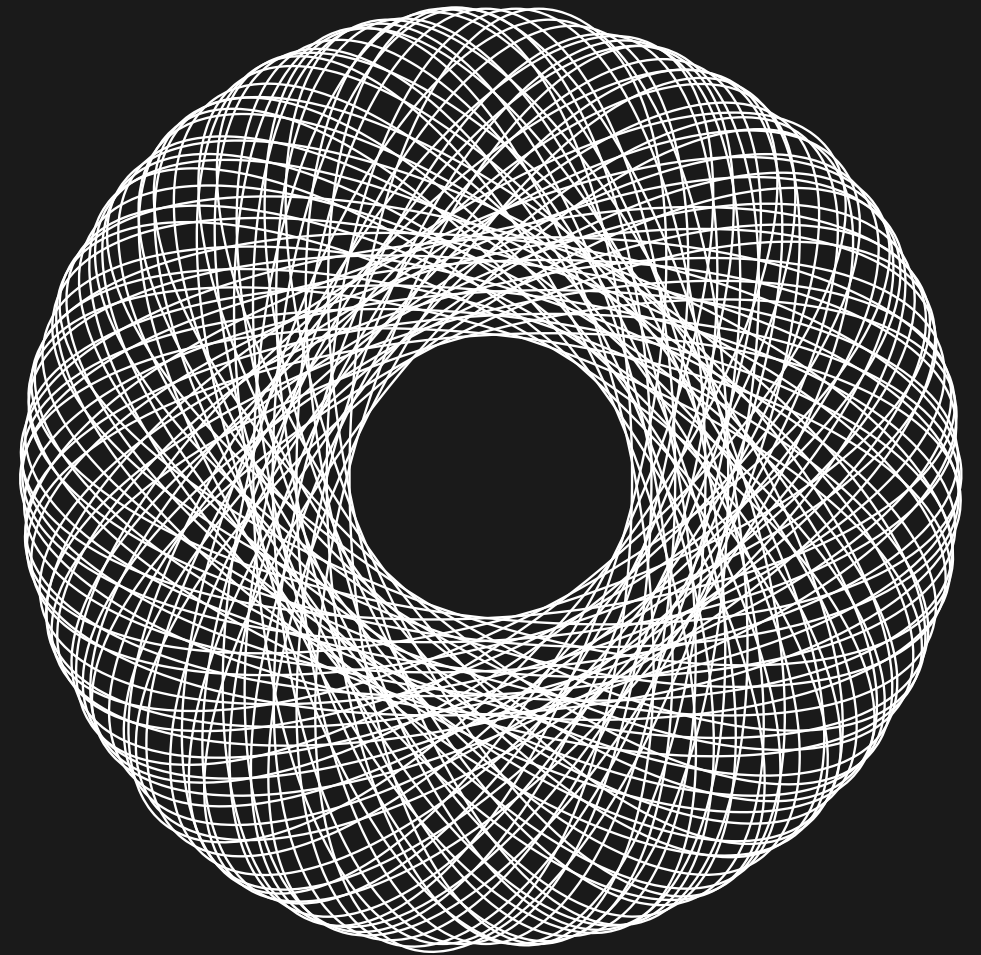
Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.



to investigate to focus to reinforce to examine to reveal to reflect to exacerbate to offer to sustain to advocate to emphasise to introduce to incorporate to aim to highlight to address to embrace to seek to address to interrogate to assert to perpetuate to celebrate to promote to express to grow to extend to provide to see to support to thank to contribute to encourage to share to believe to work to be to seek to research to meet to discuss to refer to play to create to treat to think to sit to wait to wonder to tell to look to diagnose to try to get to remember to pluck to be to take to fit to interrupt to consume to ring to answer to miss to juggle to emphasise to put to know to contribute to make to feel to sit to ask to give to be to work to set to go to figure to head to hear to leave to lose to transcend to grow to turn to sound to believe to make to undertake to develop to improve to apply to afford to attend to learn to teach to share to lead to map to see to dream to use to be able to to understand to enhance to reshape to reframe to ask to free to submit to conceptualise to build to transcend to exist to hypothesise to evoke to advance to create to lie to pull to explore to centre to undertake to represent to scope to build to understand to outline to highlight to derive to refer to derive to connect to emerge to reclaim to dominate to focus to exclude to employ to shape to align to involve to plan to design to deliver to evaluate to ensure to influence to address to allow to respond to adapt to integrate to provide to gain to contribute to investigate to amplify to engage to design to balance to intend to hear to benefit to take to delve to influence to inform to limit to replicate to claim to fix to change to develop to move to share to result to shape to uphold to impact to construct to maintain to bring to prioritise to operate to grapple to approach to reconcile to hold to assess to need to show to draw to respond to move to benefit to exercise to weave to offer to understand to have to need to appear to confer to equate to explain to focus to help to connect to look to move to lead to involve to have to test to measure to critique to promote to propose to embrace to inspire to feature to illuminate to contextualise to uphold to enrich to contrast to require to denote to associate to equate to share to sustain to experience to create to describe to acknowledge to delink to ground to listen to hear to observe to advocate to value to perceive to shape to navigate to resist to highlight to enable to draw to foster to innovate to progress to facilitate to gain to access to indicate to expand to weave to examine to argue to retrieve to reclaim to construct to gather to store to display to harvest to consume to demonstrate to sit to transmit to mean to enlighten to push back to contextualise to strengthen to capture to embody to matter to lie to love to uphold to uplift to empower to enrich to strengthen to do to consider to happen to operate to practise to further to hold to express to harness to establish to assess to visualise to shift to confirm to play to leverage to respond to move to identify to analyse to experience to welcome to conclude to scrutinise to discover to engage to grapple to influence to look to advance to replace to find to highlight to recognise to support to navigate to employ to synthesise to deepen to refine to lead to reflect to necessitate to provoke to interact to construct to inspire to challenge to undertake to investigate to focus to reinforce to examine to reveal to reflect to exacerbate to offer to sustain to advocate to emphasise to introduce to incorporate to aim to highlight to address to embrace to seek to address to interrogate to assert to perpetuate to celebrate to promote to express to grow to extend to juggle to provide to see to support to thank to contribute to encourage to share to create

MANA MAUNGA

A conceptual design exploration
of power and language beyond
contemporary time



Acknowledgements

I would like to express my deepest gratitude to Professor Anna Brown and Kaihautu Toi Māori Rongomaiaia Te Whaiti for their invaluable guidance as supervisors of this project. Thank you for encouraging me to grow through this mahi.

I extend my thanks to Te Pūnaha Matatini and Toi Āria for providing a supportive environment for this exploration. Thank you to Georgina Stokes for seeing my vision and to Krista Barnaby for her support with the design of the exegesis. Thanks also to Linda Hepburn and Deb Cumming for their contributions and encouragement.

A heartfelt thank you to Alice, Bridget, Catherine, Heather, Oli, and the wider research whānau at Toi Rauwhāangi for your support. I'd like to thank my friend circle, near and far, and my whānau, which are both plentiful with wahine toa. A special mention to my four-legged study buddy, Mitzy, for her companionship.

Most importantly, I wish to thank my Mum, for sharing your whakapapa with me and for always believing. You have worked tirelessly for the wellbeing of our whānau and our communities, and have always been my truest inspiration. Aroha nui ki a koe, tēnā koe e tōku rangatira.

Mana Maunga: A conceptual design exploration of power and language beyond contemporary time

A thesis presented in partial fulfilment of the requirements for a Master of Design at Massey University, Wellington, New Zealand

Eleanor McGeachie
2024

Abstract

This Master of Design investigates the interplay between power dynamics and language, focusing on how common verbs can reinforce power structures in design research contexts. By examining contemporary design research in Aotearoa, the study reveals how language both reflects and exacerbates system dynamics. It offers a critique of methodologies such as co-production, which may inadvertently sustain power imbalances. The project advocates for greater space for indigenous approaches to rangahau, emphasising their complexity rather than simply introducing or incorporating perspectives into a western-dominant model.

Using Kaupapa Māori theory and Mana Wahine theory, the research aims to highlight the role of language in addressing power imbalances, particularly for marginalised peoples. By embracing the strengths of Māori cosmologies, the research seeks to address historical inequities and to interrogate time and space for Māori to assert their tino rangatiratanga. In a world where language can and does perpetuate marginalisation, the findings of this thesis offer a design exploration for rangahau practices that celebrate the richness of whakapapa and pūrākau, promoting a transformative approach to language in research.

Kupu

atua — ancestral gods

hauora — health

hui — gathering, meeting

ikura — period

mana — status, power, authority

manaakitanga — hospitality,
kindness, generosity

mātauranga — education, learning

maunga — mountain

mauri — life force

pūrākau — story

rangahau — to seek out,
to research

rangatira — esteemed, high rank

taiao — natural world, environment

tapu — sacred, restricted

te ao Māori — the Māori worldview

tikanga — customs, values

wahine — woman/women

wānanga — to meet, to discuss

whakapapa — genealogy, ancestry

whakatauki — proverb

whare tangata — house of
humanity, womb

whenua — land

Note:

Throughout this
Master's, wahine is
used without a macron.

Māori refer to women as te whare tangata, recognising the vital roles women play in providing life and nurturing future generations. Women are respected for their ability to create life, so they are treated with the same consideration as Papatūānuku, the creator of all life. (Higgins & Meredith, 2011)

Table of contents

04	Acknowledgements
05	Abstract
06	Kupu
08	To share something
10	Introduction
18	Context Review
40	Method/Design Process
48	Explorations
66	There is no end, and there is no beginning
70	To say something
72	References
75	Bibliography

To share something

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

It's been a while since I've shared something here.

Taking the earliest radiology appointment just to fit it in without interrupting the work day. Waking up early to consume 1L of water in advance. That is a lot of water.

Running for a bus on the way back to work after an outpatient appointment and arriving feeling sweaty, and unsure. Sometimes you just want to go home. Have you ever had an internal pelvic ultrasound? Trust me, you'll want to go home. Have you ever had an IUD? You'll want to go home.

The phone rings, two years after I was referred for publicly funded pelvic health physio appointments. I thought they must have lost the referral.

"Do you still want it?" demands the administrator when I finally answer after I miss a few calls; I am juggling changing jobs. "It's important you take our calls so we can book you in," they emphasise.

But two years ago this referral was put through. Why do I have to know if that's still something I want, right away, if it's so important? It was the last thing on my mind. I get that, resources are stretched. But that's OK, they're busy. I am lucky, some people don't even get an appointment.

What is the answer? Will I contribute something that makes people feel like they can sit in the white rooms and ask for a little bit more? A little bit better?

I hope so. Because with language comes power.

And from *te whare tangata* comes power.

So don't give this up.

Introduction

He uri tēnei nō Ngāti Tumutumu
Ko Tainui te waka
Ko Te Aroha te maunga
Ko Waihou te awa
Ko au te maunga, te maunga ko au
Ko au te wahine, te wahine ko au
Ko Eleanor ahau

In 2021, I was working in Māori communications, and my boss at the time set me out on a journey to go back to my whenua and figure out where I was from. The deal was that I would take the Monday, head out to Te Aroha and meet some rangatira there to hear a bit more about Ngāti Tumutumu. I had never been there, and nor had most of my family. My Grandad left home at fifteen, and lost connection to his whakapapa at that time. At 6pm that Monday, I was to pick up my boss from Hamilton airport and we would debrief over dinner before some education hui the next day. It only takes one person to believe in you. Just like I believe the first whetū I see each night is my koro, Tom. Without this experience, I wouldn't have seen Mana Maunga, where the grounding of (and from) place transcends time and space.

My confidence grew. After branching into Māori communications, I turned my attention away from the public sector and into what sounded like a dream job: Senior Advisor Creative Arts Research Development and Projects at Toi Rauwhārangī College of Creative Arts. Again, someone believed in me and made me the perfect job. And this was such a time — I was working with researchers generating the most amazing creative outputs. Art, design, music. It was all there, and I was right there in it. The natural course of action was to undertake some research myself.

With the support of Anna Brown (Toi Āria: Design for Public Good), I joined The Co-production Project, a design research space developing knowledge and understanding of the process of co-producing research in order to improve use of this method in Aotearoa New Zealand and applied for seed funding through Te Pūnaha Matatini (Centre of Research Excellence for Complex Systems), with Rongomaiaia Te Whaiti joining as a co-supervisor for my Master of Design. Joining Te Pūnaha Matatini also afforded me opportunities to attend hui and symposium, to hear presentations and approaches to complexity I would never otherwise have seen.

Around this time, in late 2022, Kura Puke (Associate Dean, Māori) phoned me and let me know of an extensive project underway to set a new standard of excellence in Te Tiriti o Waitangi analysis, practice and implementation initiatives across all of the University—I would be part of this Kaiārahi Tiriti initiative. It was an immense privilege to learn and grow in this role.

People believing in me, and teaching and sharing with me their pūrākau, their rangahau, and their whakapapa, has led me here to map out what I've seen and what I dream of seeing. Mātauranga and rangahau practices are core to te ao Māori ways of knowing and being. There is always so much more to know—music, policy, communications, development, complexity, systems, education... ko au te mātauranga, te mātauranga ko au. With all these connection points, I saw an opportunity to use the breadth of my experiences to contribute to the ongoing design discourse, with a focus around transformative system design for Māori.

Research question(s)

Original
research
questions

How can co-production methodologies be applied in research spaces to better understand the experiences of wahine Māori within the health system?

How can new perspectives enhance co-production to address significant, previously unrecognised research gaps?

Current
research
question

I hypothesise that design research methodologies that evoke power sharing as a means to advancing equitable outcomes are inherently bound by the system in which they are created.

Throughout this project, I worked to reshape and reframe these questions to centre te ao Māori. In one Arohaehae (an internal critique), I asked: "Is there a place for co-production in Kaupapa Māori research?" And the answer to that is, simply, "No." Looking to free myself from the institutional requirement to submit a Master's exploring how I could enhance, improve, or re-language an introduced methodology for an Aotearoa New Zealand context—as had been the original research plan—I shifted the focus and sought to deepen my understanding of rangahau practices within the multi-layered herstories of te ao Māori. I would then use this mātauranga to conceptualise an exploration for a rangahau practice that does not seek to share power but rather build up the user's understanding of language and power, to transcend them into an exponentially creative practice that exists beyond the realm of this whenua. This cannot exist within the prescribed system. **I hypothesise that design research methodologies that evoke power sharing as a means to advancing equitable outcomes are inherently bound by the system in which they are created.** The answer for Māori lies outside of the very system that pulls upon introduced methodologies.

Aims, objectives, and methodology for scoping this thesis project

The aim of this thesis project is to explore the potential of Kaupapa Māori and Mana Wahine theories as conceptual design approaches for interrogating language and power within a system in order to centre a transformative rangahau practice. In a Kaupapa Māori approach, research is undertaken by Māori, for Māori, and with Māori. This approach seeks to understand and represent Māori experiences, perspectives, and aspirations. Scoping the project through a Kaupapa Māori lens was key to building and understanding the large and valid theoretical knowledge base in place to support the advancement of Māori aspirations (King, 2021). There is an extensive body of literature, developed over the last three decades, that outlines key principles and developments in Kaupapa Māori theory, including how it can be applied as a methodology and in research contexts (King, 2021). The scholarship highlights the potential of Kaupapa Māori to address the needs, context, and futures of tangata Māori.

Kaupapa Māori derives its name from the word "kaupapa", which refers to foundations, specifically deriving from the foundation of kākahu, which is often made of muka. Kākahu connect to the spiritual world through the whakapapa of their weaving and use of natural materials (Tamarapa, 2019). Kaupapa Māori emerged from a cultural and political struggle, seeking to reclaim space in areas dominated by western discourses (Stoddart-Smith, 2016). The focus on inclusiveness within Kaupapa Māori research is paramount, even though tauwiwi (non-Māori) perspectives are temporarily excluded (Stoddart-Smith, 2016).

Tikanga processes, such as whakawhānaungatanga, reinforce an environment of inclusivity and a policy space emerges in which everyone benefits (Stoddart-Smith, 2016).

I employed Mana Wahine theory (Pihama et al., 2019a) as a theoretical framework to further shape the scope of this thesis project. The focus on Mana Wahine theory as central to my approach aligns with the origins of The Co-production Project, which set out to explore co-production approaches through a series of case studies on women's health experiences. Co-production involves collaboratively planning, designing, delivering, and evaluating research with participants, ensuring their active involvement throughout. My own experiences with the wider Co-production Project have influenced the scope and parameters of this thesis.

I used iterative design thinking approaches to address the complexities of this research, allowing for creative solutions that are responsive and adaptable to their contexts. By integrating these theoretical frameworks and methodologies, this thesis project aims to provide meaningful insights and contributions to the understanding of rangahau development for Māori.

An overview of the exegesis

This project set out to investigate innovative methods for amplifying the voices of wahine Māori who engage with the western health system in Aotearoa New Zealand, using an approach known as co-production. A co-production process is designed to balance power dynamics between those considered “experts” and those whom the research aims to support. It is intended that through this, the voices of the participants are heard and that they benefit from the project’s outcomes. Situated alongside this wider project, I took the opportunity to delve into the uses of language systems and power structures, specifically focusing on the role of the verb as a part of speech. This research aims to understand how language influences power dynamics and informs and/or limits research methods such as co-production. Inefficient and inequitable systems can be inadvertently replicated through language and design methods that may claim to share power, or fix or change things for people (Pendergrast & Pendergrast, 2022). My project offers the opportunity to interrogate language within methods and approaches, and develops a rangahau model to move beyond system constraints as a response for Māori.

Power dynamics exist in complex social and organisational contexts, and language contributes to how power exists and is, or isn’t, shared. Historic inequities can be replicated during design and development processes and may unintentionally result in decisions that inadvertently reinforce systemic oppression (Pendergrast & Pendergrast, 2022).

Language shapes interactions, upholds power, influences decision-making and decision-makers, and impacts outcomes. I explore how power is constructed and maintained through tenets of language. While there is a place for bringing new perspectives to the co-production model, especially to build and prioritise research questions that are a priority for women, a model that seeks to balance out power dynamics still has to operate in the same context as one of oppression and a context where a dominant language operates. I grappled with the complexity of how to approach research for a marginalised, underserved group, and could not reconcile a western-dominant model with the dreams that I held for a rangahau practice for wahine Māori.

Some time later, I am confident in my assessment presented throughout this exegesis that I can look to my own maunga, mātauranga, and whakapapa for the tikanga, manaakitanga, and mana that is needed to approach rangahau (such as in the case of rangahau for the hauora of wahine Māori in Aotearoa). This is shown in the eventual arrival at the explorations, which draw on the strengths of whakapapa and the multiplicity of Māori cosmologies to derive exponential creativity as a means to respond to complexity. This moves users beyond the realm of the hegemonic contemporary time that Māori have been marginalised into, and towards a rangahau practice that benefits from its vastness and indigenous temporality.

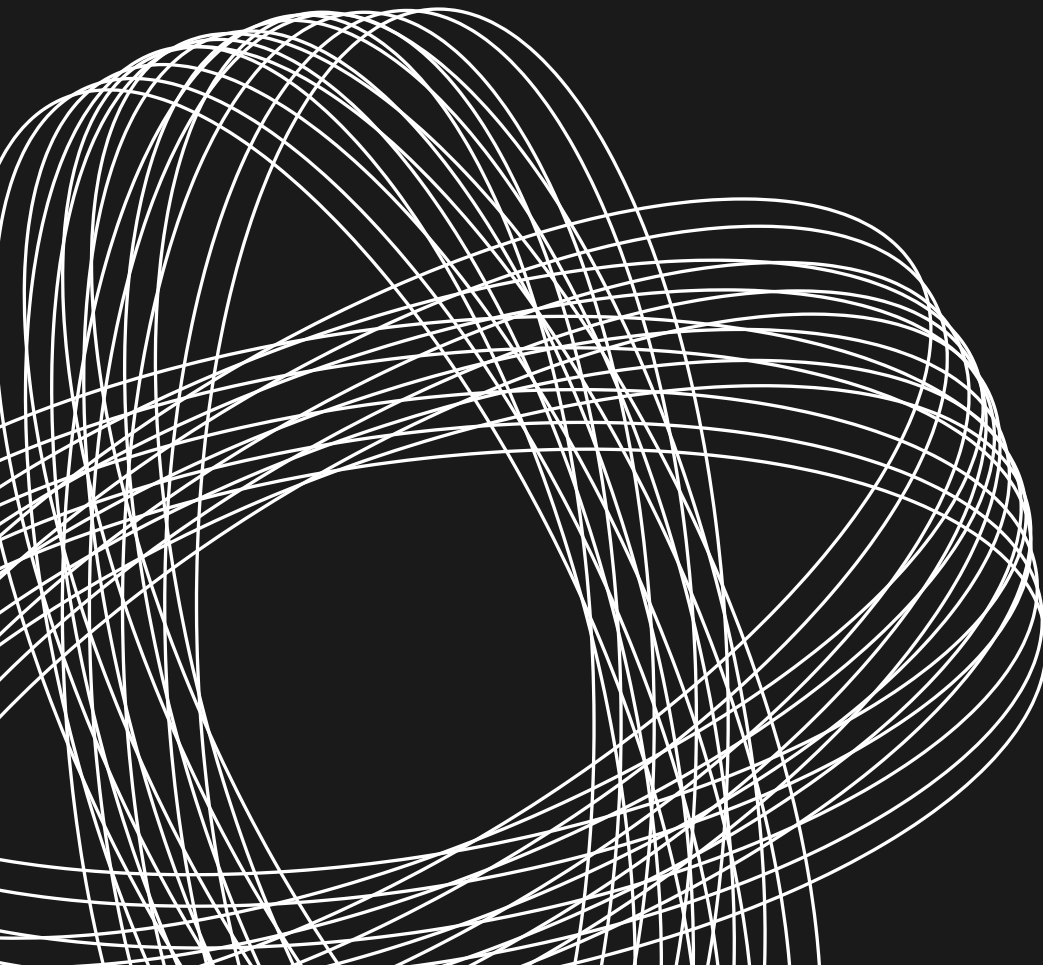
The Mana Maunga exploration I have developed is intended to offer a creative pathway into how language upholds cultural hegemony and power dynamics, to seek redress against historic inequities, and as a means for Māori to express and exercise tino rangatiratanga. It draws on precedents of Kaupapa Māori theory and Mana Wahine theory as practical approaches, weaving whakapapa and a te ao Māori worldview to offer a rangahau practice free from the bounds of colonial understandings of time (understood as flowing uniformly in one direction throughout the universe (King et al., 2022)), practices and outcomes that have repeatedly marginalised and disadvantaged wahine Māori.

Context review

To understand the context in which, and from, I would develop my design outcomes, I built an understanding of rangahau practices, indigenous design practices, and indigenous theories in Aotearoa. This search was informed by reviewing and analysing academic sources, exploring pūrākau, conversations, engagements with and through the wider Co-production Project, a co-design conference, a complex systems symposium, an iwi-led ikura wānanga, my work in the research development space for creative practice outputs, my work as a Kaiārahi Tiriti, and my work in the education sector.

This context review sets out six key findings and discusses how the precedents informed my conceptual designs:

- Women of blood: pūrākau are plentiful with the mana of wahine, and localise wahine as integral to the design and development of te ao Māori
- Development of Mana Wahine theory gives opportunity to rediscover what has been lost or mislaid
- Indigenous peoples need indigenous design solutions
- Understanding rangahau in the present context requires an understanding of worldview
- Language is a carrier of culture
- Whakapapa is the weaver of rangahau and creativity and of unlimited potential



01. Women of blood: pūrākau are plentiful with the mana of wahine, and localise wahine as integral to the design and development of te ao Māori

Te ao Māori is not short of Mana Wahine figures. We know of Papatūānuku as the mother of Aotearoa. She is the mother earth figure who gives birth to all things, including people. Then came Hineahuone, who was modelled out of clay by Tāne. The next atua wahine is Hinētītama. She fled to the underworld and became Hinenuitēpō after discovering that her husband, Tāne, was also her father (Kahukiwa, 2019).



Fig 1. Robyn Kahukiwa, *Hinētītama*, 1980, Oil on board

Atua wahine are an essential part of the cosmological narratives about Māui. His grandmother, Murirangawhenua, gave him her jawbone, and with this he could fish up Te Ika-a-Māui and slow down the sun. Māui encounters Mahuika who provided the source of fire. His life ended with Hinenuitēpō crushing him to death between her legs (Indigenous knowledge, n.d.). Women are the backbones of these stories and the wider te ao Māori worldview—*atua wahine* supply Māui with the knowledge to achieve his deeds, Māui meets his doom between the legs of a woman. This too highlights the strength of women's *tapu*—especially their genitalia and their ability to *whakanoa* (remove *tapu*, or make normal).

Hana Tapiata, a *māmā* living by Māori philosophies and a researcher of *pūrākau* and *atua*, wrote a blog post in 2017 titled *Hineahuone is a prime example: we have everything we need*. Tapiata writes, "She wasn't given anything for shits and gigs, or because the *atua* wanted a laugh. She was built for purpose and every single part of her being had its function" (2017, para. 6, 8).

Today, we are far from the practice of *manaakitia te whare tangata*—to uphold, enshrine, and take care of *te whare tangata*—and Māori women's health in particular has lost out over decades worth of innovation gaps. A 2022 Indigenous-led study using a *Kaupapa Māori* theoretical framework investigated health inequities between Māori and non-Māori adults in New Zealand and estimated the economic costs associated with these differences at NZ\$863.3 million per year (Reid et al., 2022). Studies on breast cancer inequities (Lawrenson et al., 2016) and cervical cancer survival disparities (McLeod et al., 2010) further paint a picture of the need to reduce inequalities, address barriers, and improve health systems.

This precedent that wahine are integral to the design and development of te ao Māori was important to understand the context in which we, Māori women, are operating. Exploring the depth of *pūrākau* and the role of the wahine against current research findings on health inequities grew out of the initial intention that this Master's might explore how co-production methodologies could enhance the voices of wahine Māori in health research. The *whakapapa* and the layering of *pūrākau* in te ao Māori, and the mana of the wahine that is so often lost in contemporary time, necessitate an interrogation of how more space can be found for indigenous approaches to *rangahau* and complexity as opposed to bringing new ways of thinking to a western-dominant model like co-production.

02. Development of Mana Wahine theory gives opportunity to rediscover what has been lost or mislaid

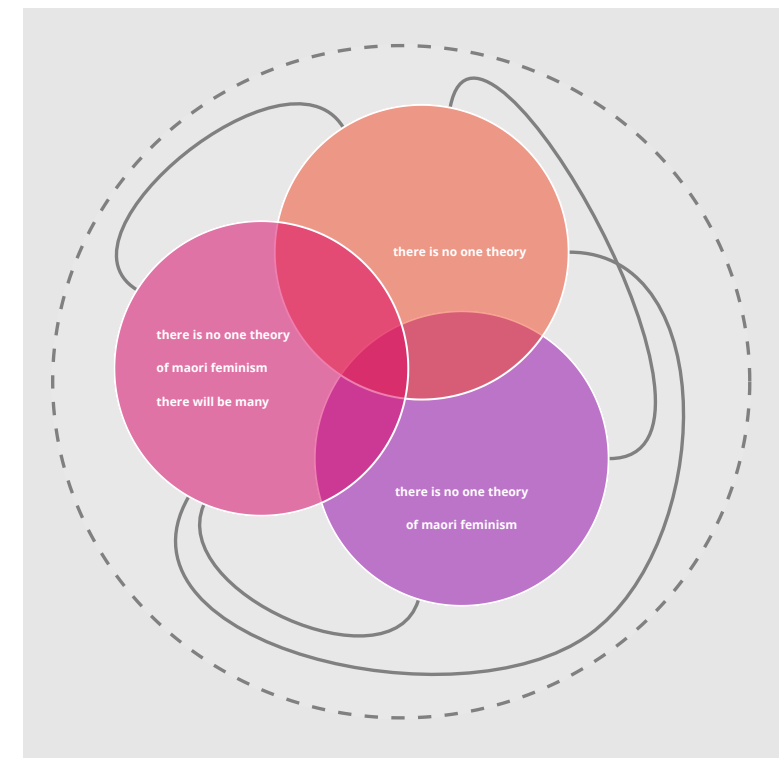
Mana Wahine theory was developed to respond to the impacts of colonisation on the status of wahine Māori, and to reassert Māori identity (Rarere, 2022). Leonie Pihama, a Kaupapa Māori academic, argues in her 2001 thesis that western theories are inadequate in understanding Māori experiences, especially those of Māori women. She emphasises that asserting Mana Wahine recognises the inequities in which Māori women are contextualised, highlighting the necessity of addressing oppressive dynamics that impact upon them (Pihama, 2001). Pihama presented Mana Wahine as a Kaupapa Māori theoretical framework.

A 1990 case study titled *Mana Wahine, Mana Māori*, led by Linda Tuhiwai Smith, an indigenous leader with extensive academic work in decolonising research, found “the presence of a dynamic system of Māori interests” and that “these interests needs to be seen as a positive indication of the depth of Māori interest in education” (Smith & Hohepa, 1990, Executive Summary). In addition, if institutions are serious about meeting Māori needs (in education) they could put structures in place to validate and connect these interests. The case study uses the term *whakamana wahine* to acknowledge the mana of women:

In this context it is acknowledged through the structure of a course which validates the knowledge of Māori women and enables that knowledge to be reproduced or passed on to younger women. This interpretation sits within a contemporary context in which Māori women claim that the natural mana possessed by women has been robbed by colonisation, by the way history has been defined and by the impact of social and economic change on Māori women. (Smith & Hohepa, 1990, p. 17)

Mana Wahine Reader, a collection of writings 1987–1998, Volume I explores Māori feminist approaches and articulates that “the first task of any theory is to make sense of the reality of the women who live within its framework. The second task is to provide women with a framework which will assist in emancipating them from racism, sexism, poverty and other oppressions” (Smith, 2019, p. 41). Theory is a necessary part of our revolutionary equipment and an opportunity to explore the power of Māori feminisms and their relationship to Māori development. The development of these theories contributes “to our empowerment as Māori women, moving forward in our struggles” (Irwin, 2019, p. 70). I was influenced by the convincing range of scholarship about Māori feminisms, and drew on the experiences and approaches presented in these writings to locate and visualise the importance of mana in my design explorations.

Fig 2.
Visualisation of
Māori feminisms
by author.



A whakatauki from a Chapter titled "Towards Theories of Māori Feminisms" (Irwin, 2019, p. 67) says:

<i>He tau pai te tau</i>	<i>The year is good</i>
<i>He tau ora te tau</i>	<i>The year is peaceful</i>
<i>He tau ngehe te tau</i>	<i>The year is full of promise</i>
<i>He tau no te wahine</i>	<i>It is the year of women</i>
<i>Rapua he purapura e rupu ai te tangata</i>	<i>Seek, therefore, the seed from which will come the greatest growth for all people</i>

Even early writing on Mana Wahine theory examined and stated the invisibilities and struggles of Māori women:

We need to actively honour, to celebrate the contributions, and affirm the mana of Māori women: those tīpuna wahine who have gone before us; those wahine toa who give strength to our culture and people today; and those kōtiro and mokopuna who are being born now, and who will be born in the future, to fulfil our dreams. These words restate a basic tenet of feminist theory: that as women we have a right to our herstories.

Throughout our story as a people, Māori women have been successful innovators and leaders. Our work and deeds have had a significant impact on Māori culture and society, breaking new ground, often in radical ways. And yet, our women, and their stories, have been buried deeper and deeper in the annals of time by the processes of oppression that seek to render us invisible and keep us out of the records. (Irwin, 2019, p. 67)

Moana Rarere, a demographer and population expert with academic expertise in studying fertility and whose work has a reclamation focus, summarises the importance of Mana Wahine as an approach over other theories or methods when she writes,

Given the dominance of western theories and methodological approaches in the scholarships on Indigenous and Māori fertility, Mana Wahine creates an empowering space for Māori women to articulate their own understandings of fertility, whānau (family), and whakapapa from their own cultural standpoint. (Rarere, 2022, p. 15)

Development of Mana Wahine theory over time has allowed me to explore and further understand the dynamism and mana in the role of Māori women for innovation and leadership in te ao Māori. This was integral to the eventual development of the Mana Maunga design exploration, which prioritises whakapapa, whenua, and iterative processes.

03. Indigenous peoples need indigenous design solutions

Paula Toko King, a Māori public health physician with a career in Kaupapa Māori research, posits in her thesis that,

In recent times, [the] government appears to have conferred co-design a place of prominence in the future of hauora Māori. Yet an ever-increasing enthusiasm for co-design as 'the solution' has not equated with an increasing evidence-base around its effectiveness or appropriateness as an applied approach within hauora Māori. (King, 2021, p. 3)

Throughout the research, King developed a conceptual and theoretical framework titled "Oranga Mokopuna", underpinned by Kaupapa Māori, which provided the base for an inquiry in their PhD. Furthermore, King explains that "building on mātauranga Māori practices foregrounding the treasured status of mokopuna within te ao Māori, 'Oranga Mokopuna' provides a decolonial frame of reference for the full realisation of tāngata whenua rights to health and well-being" (King, 2021, p. 3). This was useful reading in responding to my early research question that focused on understanding experiences of wahine Māori in the health system.

A key contributor to discussions around decolonial frameworks and indigenous-centred design is Indigenous Design and Innovation Aotearoa (IDIA), a Wellington indigenous design studio.

IDIA have three readily accessible tools on their website that support indigenising the future, one of which is a decolonised research framework (IDIA, n.d.). They explain that “global design approaches, like Human-centred design and Co-design, don’t always work for indigenous peoples” and that IDIA tools “put indigenous priorities, thinking, and ways of being at the forefront of design and research activities” (IDIA, n.d.). Their “Culture Centred Design” methodology which “helps people and organisations to understand design through an indigenous lens” is of particular importance in its ability to emphasise the notions of design [research] being indigenous-led, involving indigenous knowledge, and understanding of indigenous ways of being. The idea of indigenous time connects closely with the following key finding on worldview, including understandings of Māori temporal ontologies. These precedents are important for my design, which looks to move beyond the contemporary system, including its notions of marginalised time being restrictive.

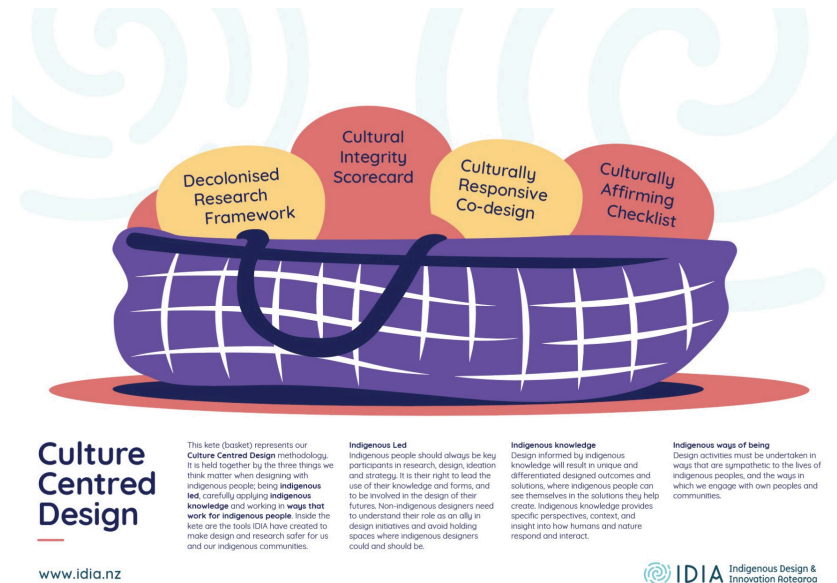


Fig 3. Culture Centred Design from IDIA toolkit.

Both King and IDIA emphasise the right of indigenous peoples to lead the use of their knowledge and forms, to be involved, and to have and exercise their tino rangatiratanga—in the case of these examples, across hauora and design.

Design Justice (and the wider Design Justice Network movement) is an approach to design that is led by marginalised communities and that aims to challenge, rather than reproduce, structural inequalities (Costanza-Chock, 2020). Sasha Costanza-Chock is a key researcher, designer and contributor in this field.

Their book *Design Justice: Community-led practices to build the world we need* explores how marginalised communities can take the lead in design to address structural inequalities and foster collective liberation and ecological survival (Costanza-Chock, 2020). Costanza-Chock articulates that “good intentions are not necessarily enough to ensure that design processes and practices become tools for liberation... and to develop principles that might help design practitioners avoid the (often unwitting) reproduction of existing inequalities” (2020, p. 6). Costanza-Chock also questions what the relationship is between design, power, and social justice. This was useful to understand my own context in questioning the relationship between design, power, and language, and led me to question uses of co- in design research. Co-designing and co-producing may have their merits, but must be carefully approached and applied depending on the context.

The following three design examples present interconnected perspectives on co-design and examples of how indigenous approaches can offer more nuanced responses to complex challenges.

An exploration and response to the challenges of co-design practices is offered in the co-authored journal article by Yoko Akama, Penny Hagen, and Desna Whaanga-Schollum titled “Problematizing Replicable Design to Practice Respectful, Reciprocal and Relational Co-designing with Indigenous People”. Their introduction highlights “worrying trends in co-design”, such as the intense demand for portable methods, replicable design processes, and the oversimplification of design stages through perceived universal models like the Double Diamond and Human-Centred Design (Akama et al., 2019, p. 59). This critique underscores the risks associated with these models, including their potential to overlook ethical considerations, and the biases of practitioners, which can perpetuate power imbalances. The authors note that such simplified frameworks fail to overlook the reflexive awareness needed in the face of shifting power dynamics (Akama et al., 2019).

Fig 4. Akama et al., 2019, p. 61.

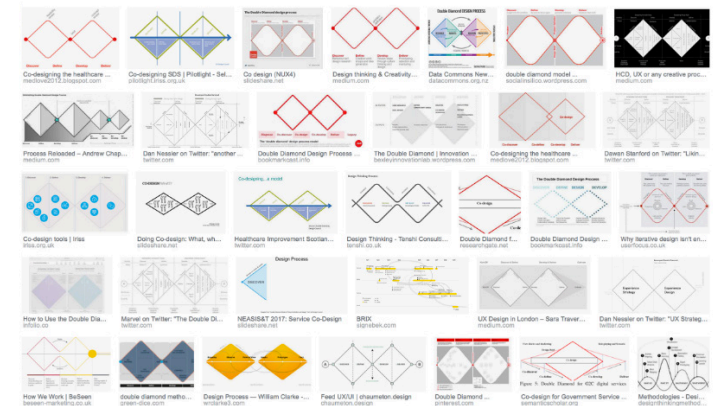


Figure 1 Google image search of co-design and Double Diamond illustrates their similarity, replicable power, and proliferation.

In Aotearoa, existing models provide opportunities to conceptualise and respond to challenges using integrated, multidimensional approaches. A notable example is the “Ngā Tohu Waiora” framework, which is a joint project between The Treasury and Te Puni Kōkiri to measure waiora (Waiora Systems, 2022). This concept is rooted in He Ara Waiora, developed by Ngā Pūkenga, which offers a mātauranga Māori perspective on wellbeing. The framework emphasises that the wellbeing of individuals is interdependent with wairua and te taiao, reflecting the cultural tikanga that should underpin any research or framework.

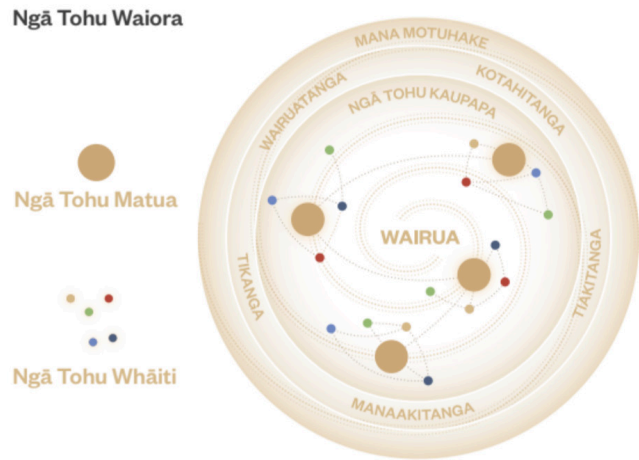
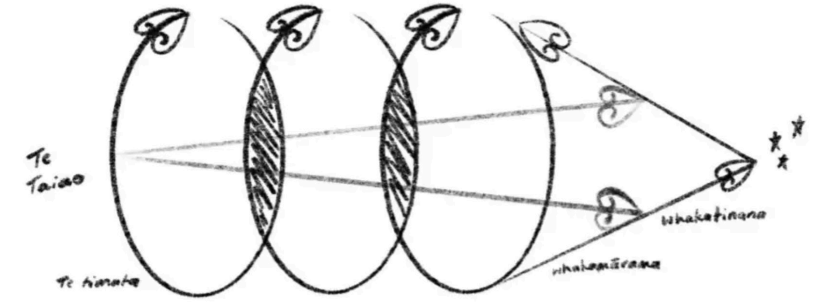


Fig 5. From Ngā Tohu Waiora Summary Report, p. 5.

“Ngā Tohu Waiora” aims to incorporate Māori values and principles into Te Tai Ōhanga The Treasury's Living Standards Framework, thus providing a distinct perspective on wellbeing. In alignment with this, Lauren Skogstad (Experience Director and strategist) argues in an article published on Springload (a bi-culturally led digital agency) that traditional models like Human-Centred Design and the Double Diamond are not fit-for-purpose models for Aotearoa (Skogstad, 2024). She critiques these models for failing to represent Māori people and for promoting extraction rather than partnership. Skogstad proposes the “Aroha” model, which embraces a holistic approach to solving complex relationships through a te ao Māori lens.

Fig 6. Aroha model from Skogstad, 2024.



Indigenous design approaches that inspire the explorations in this Master’s project often feature concentric circles or circular thinking patterns. These frameworks illuminate the expansive potential of whakaaro, emphasising the importance of contextualising and interrogating power structures upheld by language in any given space, thereby enriching the practice of rangahau. This perspective contrasts sharply with the linear and simplified stages often seen in traditional frameworks.

04. Understanding rangahau in the present context requires an understanding of worldview

Te ao Māori denotes bringing your whole self to a space, whether that be a space of kōrero, mātauranga, whānau, or a rangahau practice. Rangahau in te ao Māori is associated with pūrākau—creation theories, whakapapa, and the plurality of Māori cosmologies. A rangahau practice is not linear, nor does it have an end-point, and the meaning of rangahau does not equate with what is termed in the present day as research. Rangahau and research are entirely different concepts and inquiry paradigms, and are underpinned by completely different worldviews (Te Wānanga o Aotearoa, n.d.).

Historically, rangahau in a te ao Māori context was based on an empirical approach rather than one where a theory is tested (Milroy & Temara, 2013). Pou Temara and the late Wharehuia Milroy share their view that rangahau is “the ability to sustain the search for knowledge and to experience that search for knowledge and then to create something out of it. To create a whole system, a whole culture out of your rangahau” (Milroy & Temara, 2013, p. 10). This idea that Māori philosophies can underpin behaviour that can underpin a whole culture describes the power of the practice of rangahau in the context of te ao Māori.

Any research, rangahau, or scientific inquiry paradigm is based on assumptions and experiences built on our own worldviews. Shane Edwards (prominent researcher in education and epistemologies), in his article “Nā te mōhio ka mātau: Re-remembering mātauranga Māori in localised practice”, uses the “idea to ‘re-member’ in acknowledgement of today’s world where Māori can and should delink from western notions about knowledge, in particular their constructions of our knowledge” (Edwards, 2013, p. 42). Rangahau is grounded in te ao Māori and a history of experiencing, listening, hearing, observing. That meaning of the word rangahau is different to how rangahau may be used interchangeably with research in the twenty-first century, where research as an English word carries with it western cultural assumptions: “The kind of rangahau that our tipuna did and we understand rangahau to be was carried over many, many decades and many, many generations” (Milroy & Temara, 2013, p. 10).

The following discussions on Māori temporal and epistemological perspectives in research and practice advocate for a transformative approach to research and creative practices that value Indigenous knowledge systems and ways of knowing and being.

In “‘Never-Ending Beginnings’: a qualitative literature review of Māori temporal ontologies”, the authors highlight that time, often perceived as a stable construct, is actually shaped by social experiences—particularly for Māori in Aotearoa, where colonial histories have marginalised unique indigenous temporal understandings (King et al., 2022). The literature review reveals how current western-centric modelling for health interventions overlooks Māori temporal ontologies, creating a research gap that could be addressed by incorporating diverse conceptualisations of time.

This was interesting in respect of this project’s origins, where I was seeking to understand how co-production methodologies could address previously unrecognised research gaps. This is also consistent with the finding presented by King et al., who note that “our experiences of temporality are defined and shaped by our experiential reality”, with Māori experiences of time “marginalised by hegemonic western-centric temporal understandings that are privileged and embedded into structures and institutions” (King et al., 2022, p. 1).

In this context, the authors of *He Pou Hiringa: Grounding Science and Technology in te ao Māori* advocate for transformative spaces that build upon innovations derived from mātauranga and tikanga (Amoamo et al., 2021). They challenge the conventional question of how mātauranga Māori can strengthen western science, instead proposing an inquiry into how western science can contribute to Māori wellbeing.

This discussion resonates with writings by Borell et al. (2020), which also recognise the importance of exploring Māori space and time, and is described through an interview with Kura Te Waru Rewiri, prominent artist and academic. Te Waru Rewiri conceptualises Wāhi Ngāro, or the hidden realm, as characterised not as a void but as “a space of immense potential – of yet-to-be-realised understandings; an internal, dynamic space” (Borell et al., 2020, p. 204).

Wāhi Ngaro thus represents a gateway to new realms and experiences, further emphasising the importance of recognising and integrating Māori knowledge systems in both research and practice. The Māori creation story (Te Kore, Te Po, Te Ao Mārama) also considers that in Te Kore time is suspended in darkness, in a state of unrealised potential (N. Borell, 2020).



Fig 7. *Kura Te Waru*
Rewiri, la ra, la po
(In Te Po there are
many beginnings),
1994, Acrylic.

These understandings of time and the notion of potential within te ao Māori as being integral to development and creativity are critical to the development of my design exploration titled Mana Maunga. The precedents across these articles and scholarly contributions in discussing rangahau practice, the notions of temporal ontologies and indigenous time, and the importance of transformative approaches to Māori development all inspired me to deeply question my starting point of this research and to look beyond, and into the cosmologies, to explore greater potentiality in how we might approach rangahau and the spaces and times in which we experience it.

05. Language is a carrier of culture

Language serves as a carrier of culture, shaping worldviews and identities, particularly for Māori in settler colonial contexts where the erosion of te reo Māori has marginalised indigenous perspectives. Dr Shireen Mead provides a strong capture of the idea with the comment “if one views language as a carrier of culture, then the word research can be viewed as a carrier of western culture that reinforces and privileges a western ideology” (Te Wānanga o Aotearoa n.d., para. 6).

The loss of language not only disconnects individuals from their heritage but also limits their avenues for exploration and reclamation of their identity. In *Privilege in Perpetuity*, historian Peter Meihana also links the loss of te reo Māori to how Māori have been systematically dispossessed and marginalised, resulting in the dismantling of te ao Māori and tikanga (Meihana, 2023). In a settler colonial context, where urbanisation has further distanced Māori from their language, understanding the dynamics of power is crucial. This separation shows the importance of language in preserving cultural identity and navigating contemporary challenges.

Concepts intrinsic to Māori culture—such as whanaungatanga, mana, and kaitiakitanga—often resist direct translation, highlighting the profound depth and complexity embedded in Māori language that enriches understanding (Skogstad, 2024). Furthermore, “you may also notice when people describe things in Māori, the concepts are often profound, complex and deeply thoughtful” (Skogstad, 2024, Conceptual grounding section).

This interrelationship between language and culture emphasises the importance of whakaaro Māori—thinking in Māori—to engage with complexity. Whakaaro Māori enables individuals to draw from traditional philosophies and metaphors, fostering creative problem-solving rooted in indigenous contexts. As language reclamation progresses, the capacity to think and innovate in te reo Māori expands, facilitating deeper engagement and responses to challenges and systems that have been shaped by colonial histories. Milroy and Temara discuss this: “we start a new process about thinking in Māori and reverting to our Māori world and its philosophies to get us out of the proverbial” (2013, p. 21).

My particular interest in the dynamics of language and power and the importance of worldview led me to explore the idea that language is a carrier of culture. The idea of worldview, and how we might express our own, ties into other experiences of Māori in settler colonial contexts, e.g., if I do not have my reo Māori, how do I see and/or develop my worldview? If you have a worldview, and you have an experience of a language (e.g., te reo Māori), what about whakaaro? The design of the Mana Maunga exploration is a response to this dynamic, providing a space for the development of Māori temporal ontologies and cosmologies. By positioning Māori in spaces and times that recognise and value their reo, tikanga, and practices, individuals gain access to abundant capabilities that enhance their research practices and interactions with power. This interconnected understanding of language, culture, and worldview is essential for fostering future resilience within Māori communities.

Language is more than just being able to communicate. Language is a gateway to culture, heritage, and identity. If we are disconnected from and deprived of our language then what is our avenue into exploration, reclamation, understanding? In this case, the well-known waiata “tōku reo tōku ohooho, māpihi maurea, whakakai mārihi” sings volumes: my language is my awakening, my language is the window to my soul. If the precedents indicate that understanding rangahau in the present context requires an understanding of worldview, that language is a carrier of culture, and that whakaaro Māori is central to responding to complexity, then my response is to explore how the Mana Maunga design explorations can provide space and time for temporal ontologies, cosmologies, and whakaaro to exist, develop and expand.

06. Whakapapa is the weaver of rangahau and creativity and of unlimited potential

In *Te Awa Atua, Te Awa Tapu, Te Awa Wahine: an examination of stories, ceremonies and practices regarding menstruation in the pre-colonial Māori world*, Ngahuia Murphy (a prominent Mana Wahine researcher) argues that “menstruation was seen as a medium of whakapapa (genealogy) that connected Māori women to our pantheon of atua (supernatural beings)” (Murphy, 2011, p. 2). She presents this work using Kaupapa Māori and Mana Wahine as theoretical and methodological frameworks to examine “menstrual stories located in Māori cosmologies, and investigating tribal histories, oral literatures, ceremonies and rites” (p. 2). Murphy’s work uses indigenous methodologies to retrieve and reclaim stories, with a particular interest in understanding how those stories and experiences were constructed in cosmogonic and metaphysical universes of our ancestors. This research sets a firm precedent for exploring whakapapa and its relationship to hauora, wahine, and menstruation in the pre-colonial world, alongside the potentiality of whakapapa and the use of these theories as methodologies (Kaupapa Māori and Mana Wahine) and as weavers of creativity for understanding rangahau practices in a modern setting.

In *Atua Wahine – Mana Wahine*, Deborah Heke (a researcher in Māori health and research equity) also implements an intersecting methodological framework of Whakapapa, Mana Wahine, and Korikori Tinana—with the framework purposefully constructed to gather mātauranga wahine and with a central research question asking “how do the traits of physically active wahine Māori connect to atua wahine?” (Heke, 2022, p. 20).

Heke developed Te Kupenga o te Kaupapa methodology, which includes rāranga features and incorporates verbs such as gather, store, display, harvest, and consume. Heke demonstrates the flexibility of dynamic frameworks underpinned by theories such as Mana Wahine. This offers both theoretical and practical ways to understand positionality and potential.

Those intersecting philosophies represent a worldview that sits at the interface. The interface of ancient knowledges arranged and transmitted through oral histories, natural environments, and living beings. The interface of what it means to be Māori and what it means to be wahine, in a contemporary time built on systems that did not value either sufficiently. (Heke, 2022, p. 57)

Te Kupenga o te Kaupapa – Methodology

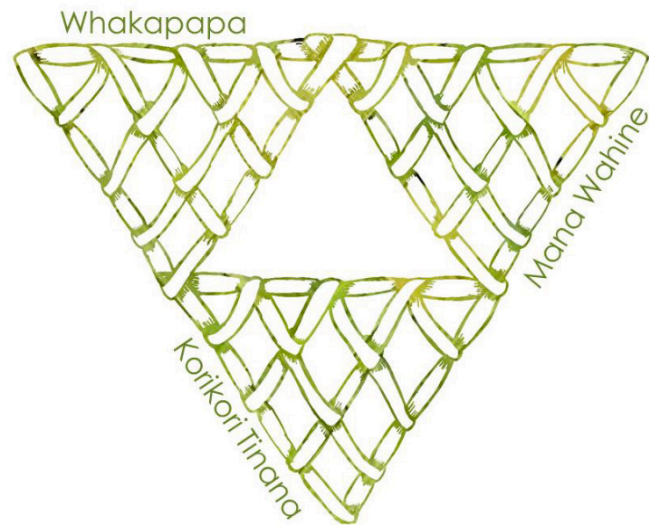


Fig 8. Heke, 2020, p. 57.

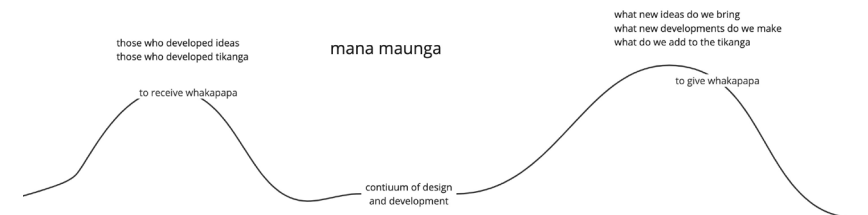
The purpose of Mana Wahine theory, in this research, is to acknowledge and whakamana the many voices of wahine whose message can benefit the many others. Mātauranga wahine is mātauranga that should contribute to the empowerment and enlightenment of wahine, but also of wider Māori. (Heke, 2022, p. 58)

Through their work, Paula King and Moana Rarere also contribute to this precedent of whakapapa through evidencing the role and importance of whakapapa, Kaupapa Māori, and Mana Wahine concepts and theories, along with mātauranga Māori and mātauranga wahine, “to take a stand and push back against others’ interpretations of their lives” (Rarere, 2022, p. 15).

The linkages between creativity, problem-solving, contextualisation in relation to whakapapa, mokopuna, and fertility were important to my exploration and conceptualisation of a rangahau practice that could weave whakapapa throughout and move the user into a transcendent space where rangahau is undertaken as a reflection of, and a continuation to, our ancestral lines.

The precedent that whakapapa is the weaver of rangahau and creativity and of unlimited potential is rich in its contemporary examples that use indigenous theory as approaches. The indigenous contextualisation, visualisation and the importance of whakapapa (and its many roles) set out across these precedents together strengthened my conceptual design of a rangahau practice that explores power and reflects it in any given space and time.

Fig 9. Early visualisation of Mana Maunga by author.

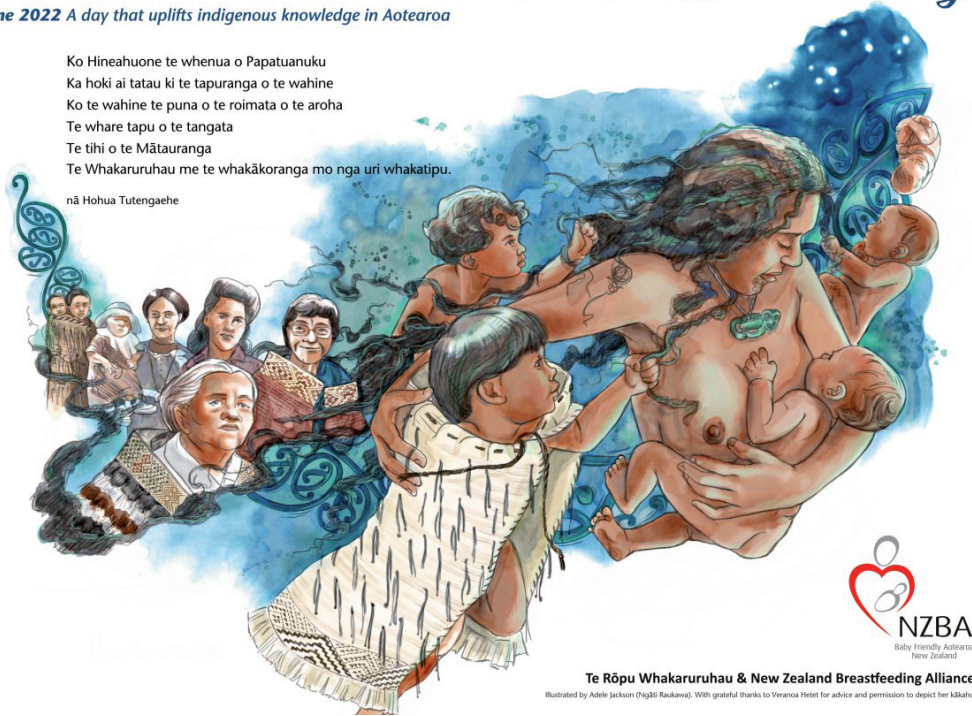


Te Rā Aro ki a Matariki Matariki Observance Day

24 June 2022 A day that uplifts indigenous knowledge in Aotearoa

Ko Hineahuone te whenua o Papatuanuku
Ka hoki ai tatau ki te tapuranga o te wahine
Ko te wahine te puna o te roimata o te aroha
Te whare tapu o te tangata
Te tihī o te Mātauranga
Te Whakaruruhau me te whakākoranga mo nga uri whakatipu.

nā Hohua Tutengaehē



Te Rōpu Whakaruruhau & New Zealand Breastfeeding Alliance

Illustrated by Adele Jackson (Ngāi Tahu Raukawa). With grateful thanks to Veronica Hiet for advice and permission to depict her kākahu.

This image was shared with me early on in my Master's during one of the Co-production hui. To me, this illustration captures everything we need to say. It embodies the mana of wahine, the weaving of whakapapa in why we care for our hauora and for ngā mokopuna. It demonstrates the strength and legacy of women, and that everything behind and everything ahead matters to us.

Fig 10. Shared with me by Carmen Timu-Parata, research fellow and registered nurse at Otago University.

Method/Design Process

Fig 11. Author's compilation of pelvic health physio notes.

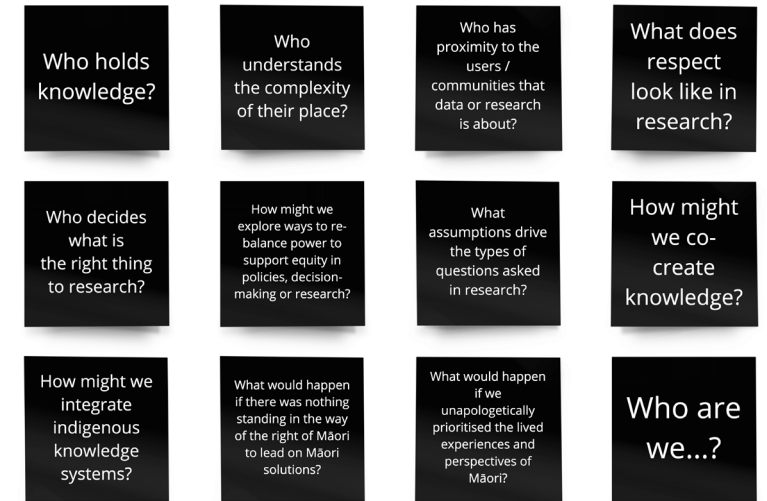


Language, power and systems

The origins of language and its importance to this project lie in my fixation that we are always doing something to other people. We love a *doing* word. We love to uphold, uplift, empower, enrich, support, and strengthen others. And to do any of these things is often associated with holding some amount of power. Language, as the carrier of culture, is therefore predisposed to privilege a dominant culture in its practices and outcomes.

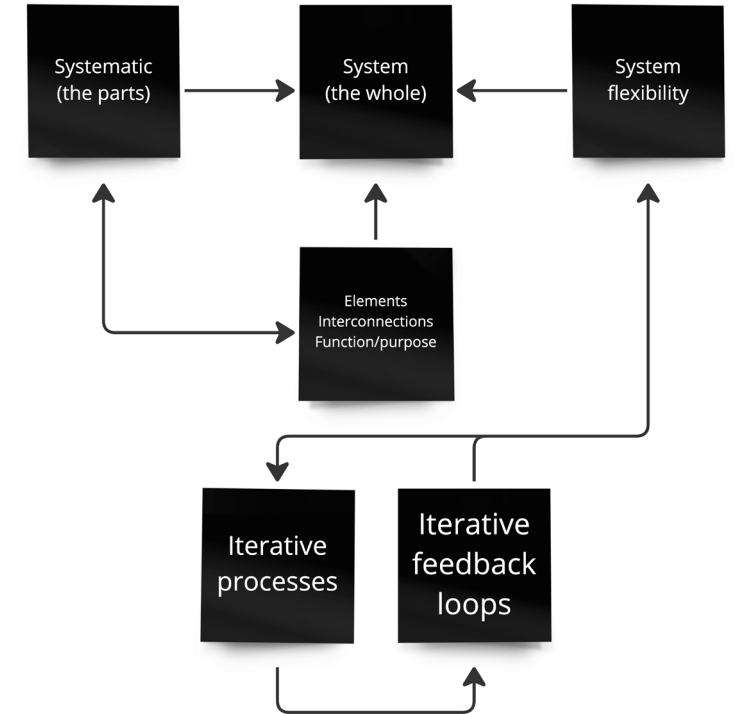
Early presentations on my research set out to explore and interrogate co-production methodologies for an Aotearoa New Zealand context and to consider the role of language in power sharing. Questions kept appearing, especially about positionality, space, systems, and power. The notion of power sharing is only ever as good as its intention and the system it operates in.

Fig 12. Exploratory questions exploring decision-making, positionality and power. Image by author.



Any power sharing happens within a system. Within any system, there is an arrangement as to how power is shared.

Fig 13. A map of system interactions. Image by author.



A comparative analysis of Kaupapa Māori and co-production approaches resulted in a confirmation that features of co-production are already prevalent in Kaupapa Māori and other approaches to rangahau that are embedded in a te ao Māori worldview. The tikanga of te ao Māori means that aspects of an approach such as co-production that have to be considered and practiced in a western methodology are inherent in an indigenous methodology where those "features" are already a part of the system.

Kaupapa Maori	Co-production
<ul style="list-style-type: none"> Involve everyone who will be taking part from the start - katoa Value and reward people who take part in the process - koha Ensure that there are resources to cover the cost of activities - manaakitanga Have a strategy in place for describing and communicating rangahau - kōrero, wānanga, māramatanga Build on existing structures and resources - tikanga, māramatanga, mōhiotanga 	<ul style="list-style-type: none"> Involve everyone who will be taking part in co-production from the start Value and reward people who take part in the co-production process Ensure that there are resources to cover the cost of co-production activities Ensure that co-production is supported by a strategy that describes how things are going to be communicated Build on existing structures and resources

Fig 14. A reduction of comparative analysis of two approaches.

This set me on a course to further explore how dominant language operates in the realm of power sharing, and the system constraints that are placed on Māori seeking to hold and express tino rangatiratanga.

Two starting platforms

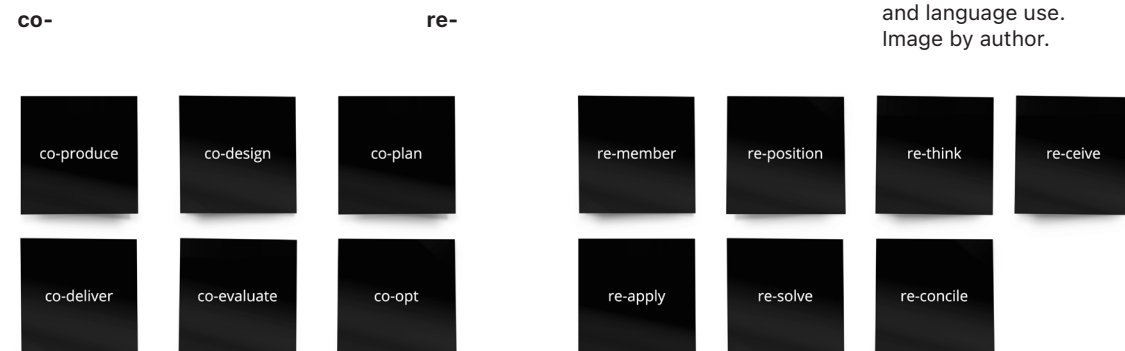
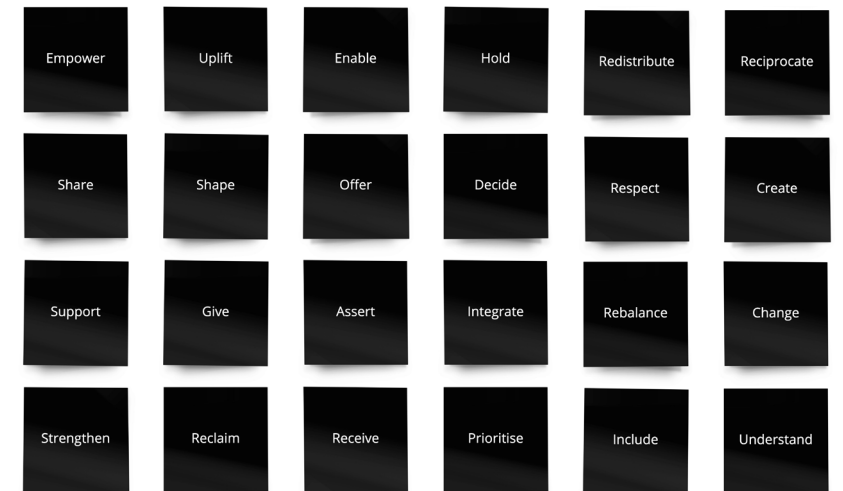


Fig 15. A split view of positionality and language use. Image by author.

I test the hypothesis that power sharing is a flawed construct and that dominant language contributes to the upholding of power in system [design] and research development spaces. An iterative process, including kōrero with critics at my Arohaehae (an internal critique), led me to present on, and then further develop, the concept of having a "kete of verbs" as a means to reflect on how power operates. The doing word is the ultimate undoing. Key verbs that presented as frequently used in relation to power are presented in the following sticky notes:

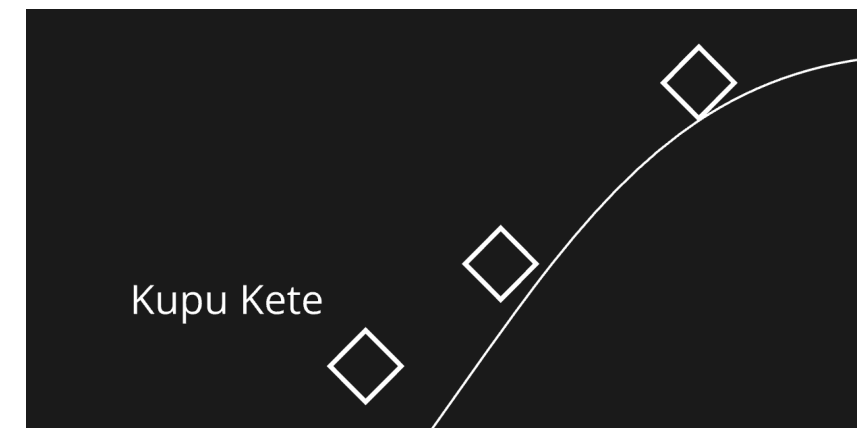
Fig 16. A split view of positionality and language use. Image by author.

What do we do with power? How do we interact and experience power?
 What language do we use to do things to others? How do we reflect on power?



This diagram visually explores the idea that it was possible to harness dominant language structures within the net of a kete and to then establish and explore their usefulness and purpose within a wider site of power.

Fig 17. Early visualisation of Kupu Kete. Image by author.



<p>whaka- to cause something to happen</p> <p>whaka-maori to make normal</p> <p>whaka-mana wahine to make strong, to build up women</p> <p>whaka-ahua to acquire form, to transform, to form, fashion</p> <p>ahua-tanga features, characteristics</p> <p>ahua to form, make</p>	<p>ranga- to raise up</p> <p>ranga-ranga to weave</p> <p>ranga-hau to seek, search out</p> <p>hau-ora healthy, well</p> <p>hau essence</p> <p>ora to be alive</p>
---	---

Fig 18. Presentation of weaving and metaphor in reo. Image by author

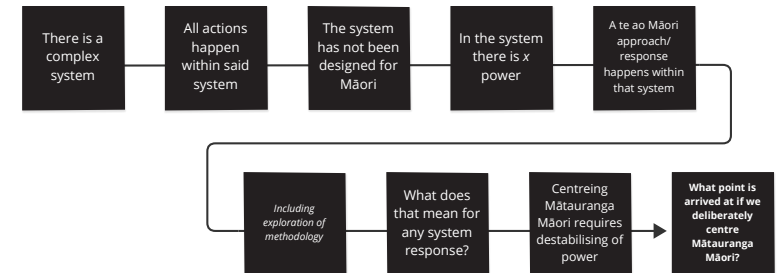
Building on the idea of kete, I drew together some āhuatanga Māori of a rangahau basket.

whakapapa	kōrero	mārama
manaaki	mōhio	kaitiaki
mātau	mauri	mana

Fig 19. Features of a rangahau basket. Image by author

When used as an interchangeable term, the conducting of research | rangahau within a system where any co-producing or co-designing occurs is inhibited by that system, and will therefore predicate and assess outcomes against measures of success relative to that system.

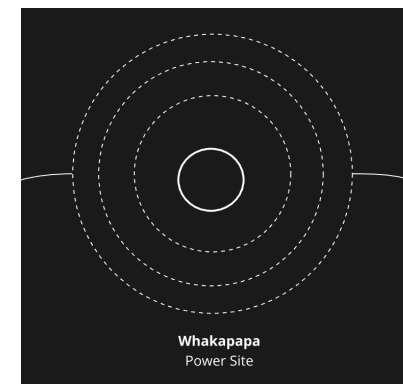
Fig 20. Description of movement towards destabilisation of power within the system. Image by author



Destabilising power to the point where any output wholly privileged a Māori rangahau experience became an important feature of this project. The indigenous precedents discussed in my Context Review, particularly the need for indigenous design solutions for indigenous peoples, compelled me to create something for Māori. This shifted the project away from its original question of “how can co-production methodologies be applied in research spaces to better understand the experiences of wahine Māori within the health system?” to a multi-layered exploration of a rangahau practice for understanding or responding to experiences of wahine Māori.

Throughout the journey of my Master’s, testing these ideas about language with researchers and practitioners alongside my own visualisations confirmed that understanding how language operates in a space was of interest to me, and the development of the concept of a “kete of verbs” would become integral to the development of Mana Maunga (as Kupu Kete). Further iterations took the exploration of power, and how language plays a role in that, beyond the scope of the kete and into the cosmological, layered, and boundless space of te ao Māori.

Fig 21. Early visualisation of a power site. Image by author.



explorations

torotoro — whakatōmene — whakatewhatewha — tōmene — torohē — hōpara — tūhura

torotoro — whakatōmene — whakatewhatewha — tōmene — torohē — hōpara — tūhura

torotoro — whakatōmene — whakatewhatewha — tōmene — torohē — hōpara — tūhura

torotoro — whakatōmene — whakatewhatewha — tōmene — torohē — hōpara — tūhura

Design Outcomes

Mana Maunga is a conceptual exploration of how language upholds power in any given space. It is designed to support a rangahau practice that weaves whakapapa throughout, and prioritises the importance of whakaaro Māori as a means to develop and respond to varying complexities. Through interrogation of dominant language, the exploration positions Māori in a place where they are observant of the languages and powers at play.

The exploration supports exponential creativity and an eventual embodiment of a rangahau practice lived within the cosmological layers of te ao Māori. It is a critique of, and a response to, dominant frameworks that determine and consider endpoints as foundational to problem-solving in research practices and systems. Dominant frameworks often overlook the vastness of time that sits behind a practice of rangahau when positioned within a Māori worldview, and the mauri and mana embedded in the layered metaphor of te reo Māori.

Kupu Kete respond to the precedent that language is a carrier of culture, and subsequently that dominant languages hold and uphold power in spaces and systems. Building an understanding of how language operates becomes a key driver in interrogating power dynamics in a space (such as for rangahau).

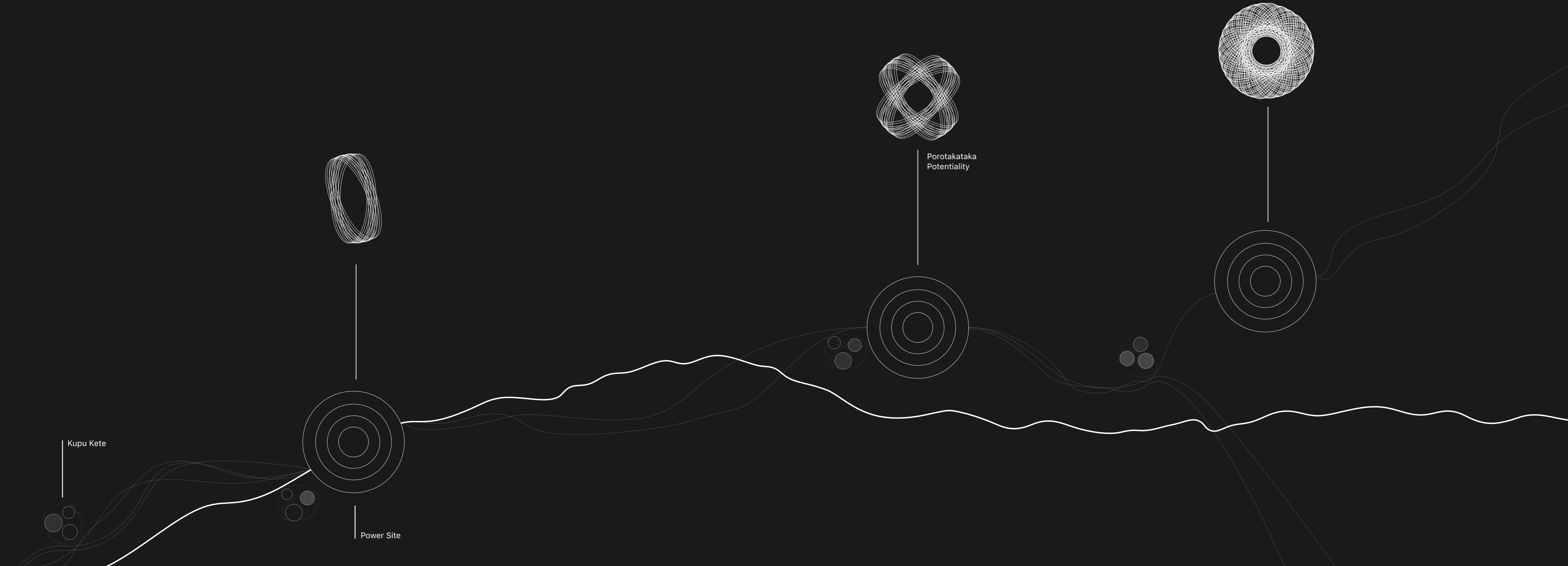
With the Kupu Kete, you gather language on your haerenga as you build and develop a deeper understanding of the power dynamics operating in a space.

Arriving at a Power Site, there is opportunity for reflection on the language you have gathered and the context you are in. How do you use and experience language? How is language used towards you? What sorts of powers are here and how are they upheld? How has a prevalent language or system prevented you from a deeper exploration?

Deep in the site of Māori exploration, following reflection and comprehension of the power of language, you transcend hegemonic colonial understandings of contemporary time and move into Porotakataka Potentiality, a space where you experience cosmological capabilities to explore and reclaim a true rangahau practice.

Its ultimate purpose is to move the user from an experience of marginalised space and time contexts that have restricted Māori, to the experience of an immense space of potential within a Māori worldview allowing for the multiplicity of creativity.





Kupu Kete

Power Site

Porotakataka
Potentiality

exploration — tahi

mana maunga: an exploration of language and power in a space

When you are on your maunga, you know where you stand. Mana Maunga suggests a reflective approach to interrogate the power of language in a space, built on the foundation of Māori temporal ontologies to allow room for a rangahau practice with the thread of creative whakapapa it so deserves. There is exponential potential to be found in a rangahau practice grounded in whakapapa. This is particularly important as a space and time response to contemporary understandings of time where solutions-focused, time-bound responses to complexity are paramount.

The whakapapa of mātauranga is so great that the answers lie in a space that we have not been able to access in contemporary experiential realities. Mana Maunga looks to help us find it.

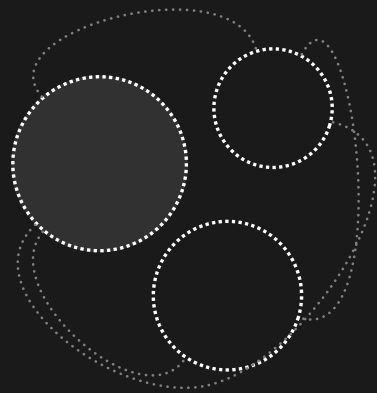
The overall Mana Maunga exploration affords the opportunity to interrogate language and power beyond contemporary and introduced understandings of time and space. It is a deep dive into a rangahau practice, to experience how language operates around you and to reflect on what sorts of power are operating in that space. Mana Maunga is grounded in te ao Māori. It is etched onto the maunga, and draws on the precedents of Kaupapa Māori theory and Mana Wahine theory as approaches, in conjunction with the weaving of whakapapa to capture power in spaces and challenge it.

Through building an understanding of how language upholds power in space, there is an opportunity to claim and command space for indigenous rangahau practices away from colonial and hegemonic understandings of time that have marginalised and constrained Māori innovation and creativity. Interrogating and experiencing language is a key part of a response and shift away from dominant structures and practices that are imposed on rangahau.

The purpose of a haerenga through Mana Maunga is to reflect on how language upholds power and how power operates in any given space. For the purposes of this project, this has focused on deepening a rangahau practice. Mana Maunga has been informed by the emergent precedents in the Context Review, and responds with a conceptual design allowing for exploration of language as the carrier of culture, concentric and cosmological power capabilities, whakapapa as the weaver of rangahau, and Mana Wahine theory as an approach.

exploration — rua

kupu kete: collecting language
on your haerenga



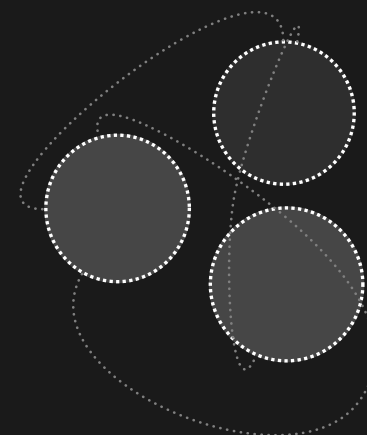
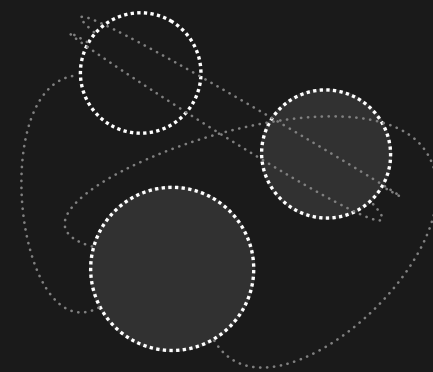
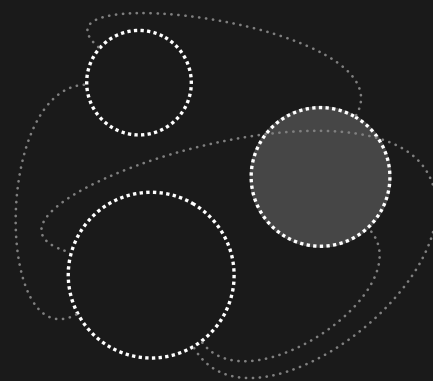
The language you collect as you traverse up Mana Maunga is cumulative. Gathering language in your Kupu Kete is intended to grow your understanding of how that language operates. This is an evolving step (an ever-growing basket of knowledge) that exponentially grows your understanding of place and power through experiences of language.

We all experience “verbs”—things that you do and things that are done to you, and you put them in your Kupu Kete. Your Kupu Kete equips you with knowledge and experiences of certain language to show you how power is operating in a context, how it is operating around you, and how it can generate a system response.

Verbs offer relational connections between people, places, and ideas. Where power exists in a space, and if it is looking to be shared, then verbs connote how participants identify and relate to that power and how they may demonstrate and communicate their worldview.

Do I want this language? How is it useful to me? What is my experience of that language?

As you move closer to a Power Site, the experiences of language you have collected leads you to a greater understanding of the language power context you’re operating in, as you deep-dive in to challenge the power. You may take some language with you, and leave some behind that is not of use to you. There is potential in every decision.



exploration — toru

power site: arriving at a site of
Māori exploration

When you enter a space...

Arriving at the Power Site, you experience criticality and reflection.

What have you brought? What have you experienced?

Here you are, working in the Power Site in the context of which you have built an understanding. You can plug in to a Power Site—connecting to power, grappling with power, interrogating the power.

How does the language you have gathered in your Kupu Kete aid you to respond to, acknowledge, and carry your worldview?

Where is the power? Who holds the power? Do you care? How is that affecting you?

The Power Site is a turning point in Mana Maunga. The Power Site can move you, transcend you, beyond the experiences and languages that you have accumulated and into an above space. An āhuetanga, or theme, for each Power Site is included as a guide.



exploration — whā

porotakataka potentiality:
generating cosmological capabilities
in the power site

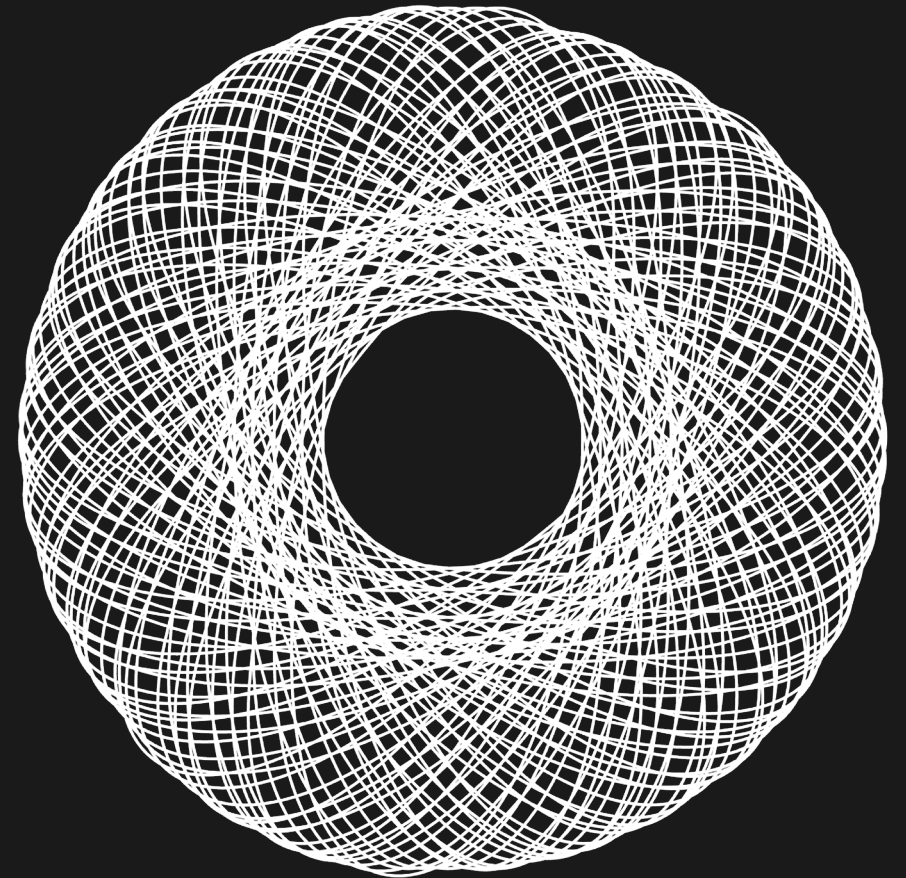
Deep in the site of Māori exploration, following reflection and comprehension of the power of language, you transcend hegemonic colonial understandings of contemporary time and move into Porotakataka Potentiality, where you experience cosmological capabilities to explore and reclaim a true rangahau practice.

Porotakataka Potentiality points build on the precedent of concentric capabilities as integral to the description and presentation of te ao Māori approaches to theoretical frameworks and visualisations. They reflect the strength of iterative processes and never-ending whakapapa and mātauranga that would be present in any system design model for Māori.

*Where are you going? What are you leaving? What are you taking?
Ka haere koe?*

Porotakataka Potentiality points emphasise and promote limitless potential. Here, deep within and above the site of Māori exploration, there is opportunity to map the interaction of creativity in the exponential realm of Māori cosmologies. There is space here for Māori temporal ontologies and understandings of time, and ways of knowing and being. There is space for rangahau.

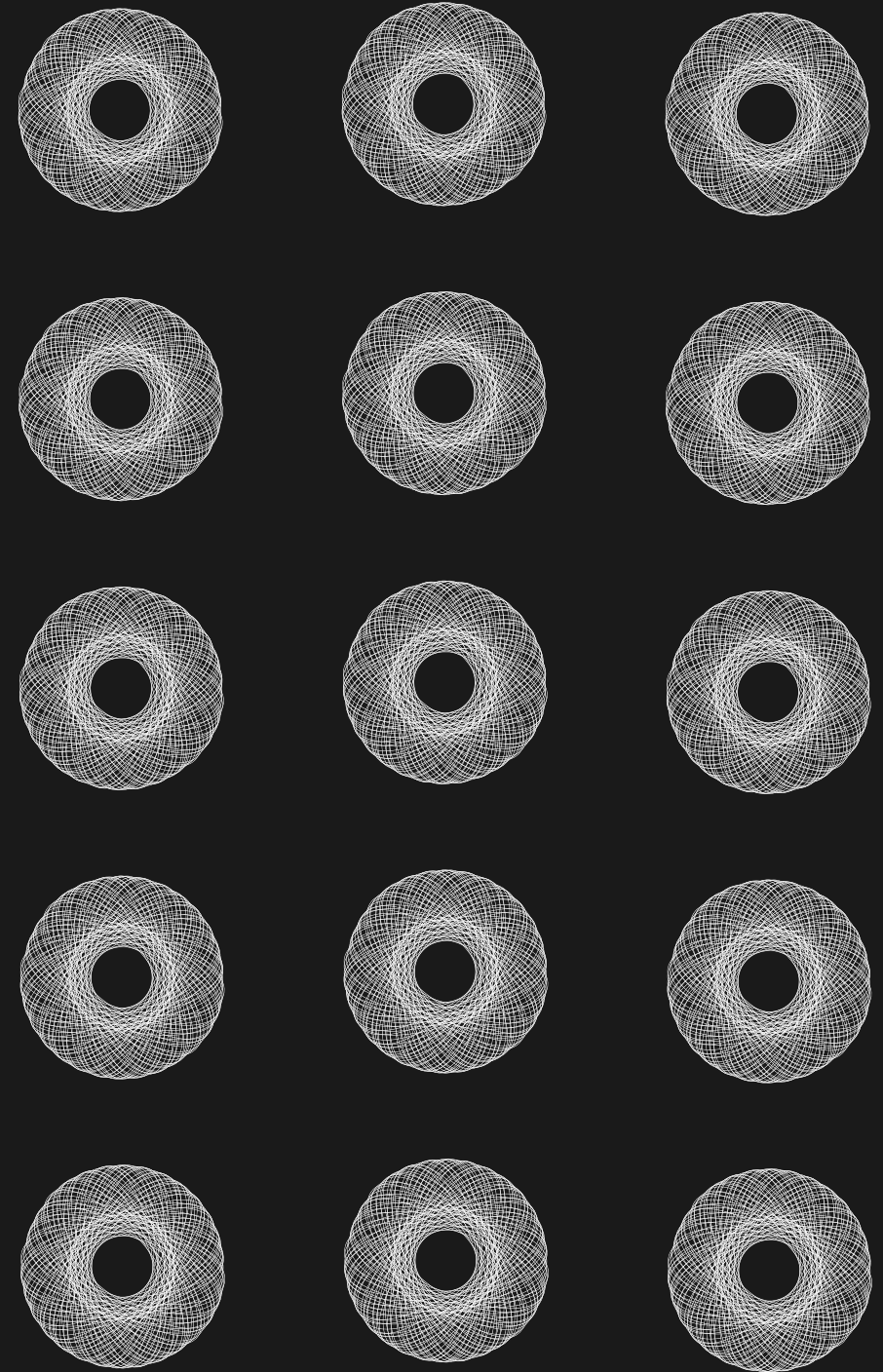
This framework advocates for a rangahau practice that liberates itself from colonial system constraints toward a more expansive understanding of time, space, and identity.



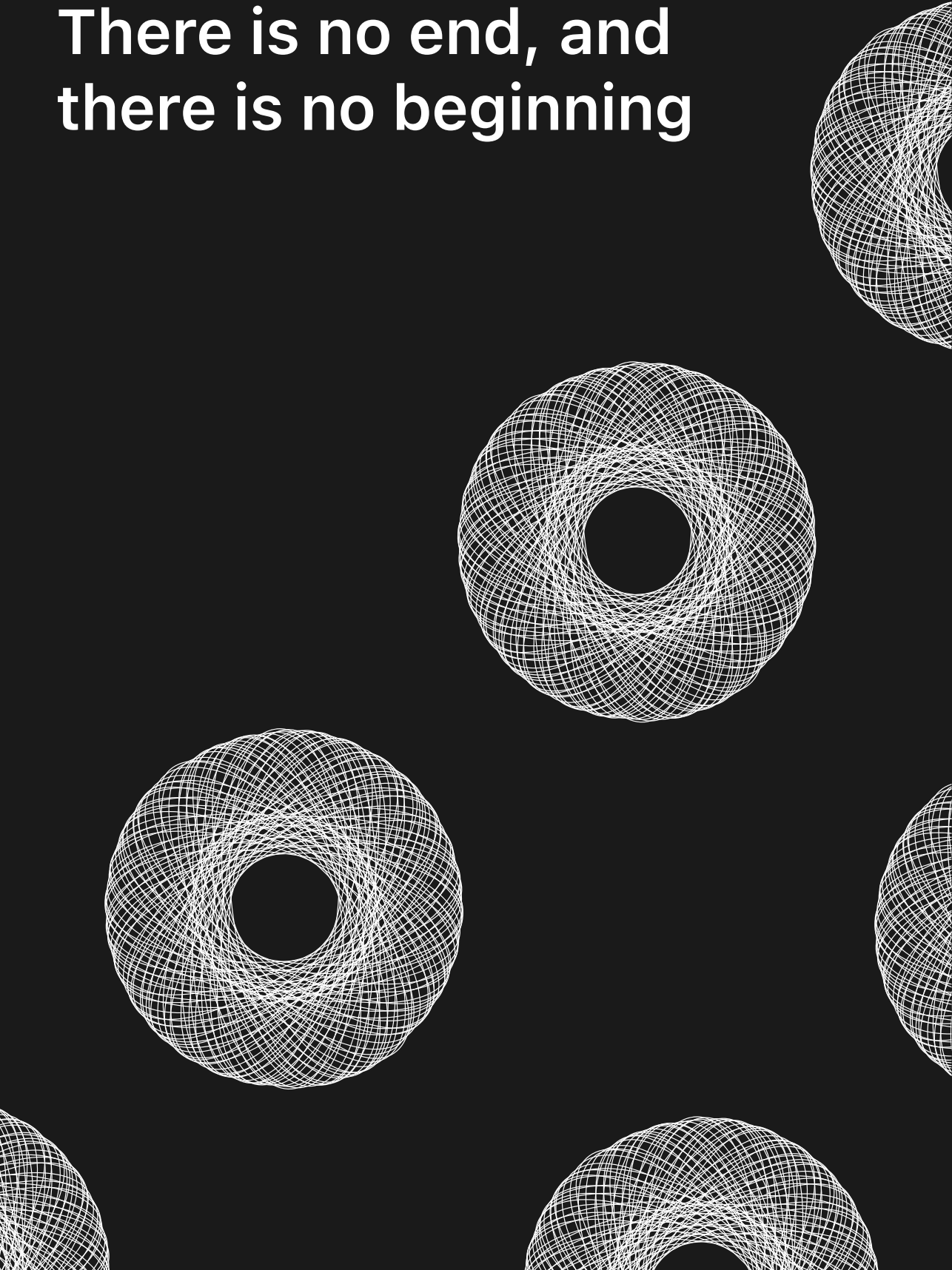
What do I do with it and where do I go?

As it stands, a practitioner could leverage this exploration as part of their rangahau practices and to respond to challenges in their field. By moving through the phases outlined in this exploration, they could identify systemic language and power, analyse interconnectedness of space and time, experience vast and creative potential, and use the design to move beyond temporal understandings of time for rangahau. The perspectives drawn on to develop this exploration are intended to foster innovation, and encourage new ways of thinking, for Māori, about power and interactions. Through Mana Maunga, practitioners can approach problem-solving and rangahau in ways that resonate with broader systems that lie beyond contemporary operating contexts.

I have developed this approach within the timeframe of a part-time Master of Design, while working full-time. It has taken me two years of contemporary, busy, complicated time, thereabouts. The next part of this haerenga will be to move it into a space where it can be directly observed and experienced by practitioners in their mahi to interpret and practise this conceptual design. The process of seeking further design evolutions, the nature of the knowledge, and how Mana Maunga is used are, and will, be grounded in te ao Māori. I would welcome the opportunity to wananga this exploration, and to welcome adjustments, refinements, additions, and iterations into the overall explorations.



There is no end, and there is no beginning



Mana Maunga: A conceptual design exploration of power and language beyond contemporary time concludes with a reflection on the intricate interplay between power, language, and indigenous methodologies. The investigation explores how the verb—a common linguistic unit of action—serves as a vehicle that often perpetuates power structures within design research. By scrutinising these dynamics through the lens of Kaupapa Māori and Mana Wahine theory, the study proposes a transformative approach to rangahau for Māori that transcends contemporary understandings of time.

Through this research, I discovered that power dynamics are embedded within language itself, influencing interactions, system design, decision-making, and outcomes. The verb, as a dominant element in language, frequently aligns with actions that uphold and reinforce existing hierarchies. I grappled with the knowledge that even well-intentioned methodologies, such as co-production, can inadvertently replicate power imbalances. This prompted a shift in my focus towards understanding how to harness language power more consciously within research frameworks, particularly in the context of Aotearoa.

I looked to respond to my hypothesis that design methodologies that evoke power sharing as a means to advance equitable outcomes are inherently bound by the system in which they are created and not able to replace indigenous-led approaches to rangahau that have their own whakapapa, mātauranga, and tikanga embedded in them. Through the lens of Kaupapa Māori theory, I found clarity in the understanding of a research framework for Māori, by Māori, that not only offers a robust theoretical foundation but also highlights the importance of inclusivity and the reclamation of agency within research practices.

I engaged with the concept of Mana Wahine theory to further expand the scope of this project. By centering the experiences and knowledge of wahine Māori, I recognised the potential to address the unique challenges they face within the western health system and beyond. This approach reinforces the idea that indigenous methodologies can provide solutions that are culturally resonant and contextually relevant, thereby supporting Māori aspirations.

As I navigated through this research, I employed iterative design thinking methodologies, allowing for adaptability and responsiveness to the complexities inherent in the subject matter. I synthesised various theoretical frameworks and engaged in dialogues with critics, peers, researchers and practitioners through Arohaehae (internal critiques which became a space for iteration and reflection) to deepen my understanding and refine my approach. This process led to the concept of the “kete of verbs” (Kupu Kete), a metaphorical framework to explore how the gathering and interrogation of language can both uphold and destabilise power structures on a pathway of rangahau.

The kete, or basket, symbolises a collection of verbs that reflect the actions associated with power dynamics. By analysing these verbs, I aimed to understand their role in reinforcing dominant narratives and practices. This exploration revealed that the act of naming, framing, and defining is deeply tied to the exercise of power, thus necessitating a conscious engagement with language in the research process.

In conclusion, this study demonstrates the vital importance of contextually grounded research methodologies that honour and reflect Māori worldviews. The Mana Maunga exploration emerges as a creative pathway, offering insights into how language and power interact within cultural hegemony. By embracing the strengths of Māori cosmologies, this research not only seeks to address historic inequities but also empowers Māori to express and exercise tino rangatiratanga. In a world where language can perpetuate marginalisation, the findings of this thesis offer a hopeful vision for a rangahau practice that celebrates and centres the richness of whakapapa, pūrākau, and the Wāhi Ngaro.

Mana Maunga provokes critical engagement with the language we use and experience, the power we may wield or interact with, and the narratives we construct. By centering Māori perspectives and Māori ways of knowing and being, I have looked to contribute an inclusive rangahau practice that honours the whakapapa, mana, and mātauranga of those it seeks to represent. This haerenga reaffirms that system changes and responses begin with a conscious choice to shift our paradigms and embrace the complexities of our shared histories, languages, and futures. Through Mana Maunga, I hope to inspire others to interrogate their own practices, challenge existing power dynamics, and experience rangahau undertaken in times and spaces far above the maunga.

“He mihi mutunga kore tēnei ki a koutou, wahine mā.”
(Pihama et al., 2019)

To say something

This is my co-ntribution.

To the system.

This is my co-ntribution to all the co- they like to add in.

The co-designer and the co-producer. For those who aren't ready to radically problematise their approaches to avoid them becoming co-replicable.

We already have what you're trying to bring. It's called co-papa Māori, if that resonates with you.

This is my co-ntribution to my Mum. And her Mum. And her Mum.

To all our mothers and to Hineahuone. Who shaped Tāne from her womb, and felt whakamā. This is for the wahine. This is kaupapa Māori.

This is for the pūrākau that says we were born of the maunga.

I will stand proud on it.

This is how they white wash your tikanga, your ideas. How can we co-exist? We don't want to, they say.

This is my co-ntribution to what it feels like to sit here and watch.

Watch you co-create and co-plan and co-design and co-deliver but not with me, I am not part of that co-.

This co-methodology is too far from what we need here. As we already have it, strong in our practices, our tikanga, our mātauranga.

They talk about indigenous time, but they won't wait and don't wait.

Here is the kete, the kete of verbs—what they want to do with you, to you, what they will take from you.

Ko au te mātauranga, kei te mātauranga au.

This is my co-ntribution for those who want to put co- in front of verbs to share the power that they hold.

This is my co-ntribution for those who must put re- in front of verbs to claim their power back.

I won't re-language this for you, I don't need to. I may not have all my reo but I have enough to tell you that this, this is not co-production.

This is my co-papa.

This is Kaupapa Māori.

**This is my co-ntribution.
To the system.**

**This is my co-papa.
This is Kaupapa Māori.**

References

- Akama, Y., Hagen, P., & Whaanga-Schollum, D. (2019). Problematizing replicable design to practice respectful, reciprocal, and relational co-designing with indigenous people. *Design and Culture*, 11(1), 59–84. <https://doi.org/10.1080/17547075.2019.1571306>
- Amoamo, M., Kawharu, M., & Ruckstuhl, K. (Eds.). (2021). *He pou hiringa: Grounding science and technology in te ao Māori*. Bridget Williams Books.
- Borell, B., Te Waru Rewiri, K., Barnes, H. M., & McCreanor, T. (2020). Beyond the veil: Kaupapa Māori gaze on the non-Māori subject. *Journal of Sociology*, 56(2), 197–212. <https://doi.org/10.1177/1440783319893503>
- Borell, N. (2020). *Te Kore, Te Po, Te Ao Marama*. Auckland Art Gallery. Retrieved 31 October, 2024, from <https://www.aucklandartgallery.com/whats-on/exhibition/te-kore-te-po-te-ao-marama>
- Costanza-Chock, S. (2020). *Design justice: Community-led practices to build the world we need*. The MIT Press. <https://doi.org/10.7551/mitpress/12255.001.0001>
- Edwards, S. (2013). Nā te mōhio ka mātau: Re-membering mātauranga Māori in localised practice. In S. Edwards & R. Hunia (Eds.), *Dialogues of Mātauranga Māori: Re-membering*. Te Wānanga o Aotearoa.
- Heke, D. (2022). *Atua Wahine – Mana Wahine. A whakapapa expressed through the physical activity of Māori women in contemporary Aotearoa* [Thesis, Auckland University of Technology]. <https://hdl.handle.net/10292/15024>
- Higgins, R., & Meredith, P. (2011). *Atua and tipua*. Ministry for Culture and Heritage Te Manatu Taonga. Retrieved 3 September, 2024, from <https://teara.govt.nz/en/te-mana-o-te-wahine-maori-women/page-1>
- IDIA. (n.d.). *Idia Toolkit*. Retrieved 1 September, 2024, from <https://www.idia.nz/toolkit>
- Irwin, K. (2019). Towards theories of Māori feminisms. In L. Pihama, L. T. Smith, N. Simmonds, J. Seed-Pihama, & K. Gabel (Eds.), *Mana wahine reader, a collection of writings 1987-1998, Volume I*. Te Kotahi Research Institute.
- Kahukiwa, R. (2019). *Hinetitama by Robyn Kahukiwa*. New Zealand History. <https://nzhistory.govt.nz/media/photo/hinetitama-robyn-kahukiwa>
- King, P. T. (2021). *Oranga mokopuna. Ethical co-designing for the pluriverse* [Thesis, University of Otago]. <https://ourarchive.otago.ac.nz/handle/10523/12111>

King, P. T., Cormack, D., Harris, R., Paine, S.-J., & McLeod, M. (2022). 'Never-ending beginnings': A qualitative literature review of Māori temporal ontologies. *Kōtuitui: New Zealand Journal of Social Sciences Online*, 0(0), 1–16. <https://doi.org/10.1080/1177083X.2022.2138467>

Lawrenson, R., Seneviratne, S., Scott, N., Peni, T., Brown, C., & Campbell, I. (2016). Breast cancer inequities between Māori and non-Māori women in Aotearoa/New Zealand. *European Journal of Cancer Care*, 25(2), 225–230. <https://doi.org/10.1111/ecc.12473>

McLeod, M., Harris, R., Purdie, G., Cormack, D., Robson, B., Sykes, P., Crengle, S., Iupati, D., & Walker, N. (2010). Improving survival disparities in cervical cancer between Māori and non-Māori women in New Zealand: A national retrospective cohort study. *Australian and New Zealand Journal of Public Health*, 34(2), 193–199. <https://doi.org/10.1111/j.1753-6405.2010.00506.x>

Meihana, P. N. (2023). *Privilege in perpetuity: Exploding a Pākehā myth*. Bridget Williams Books.

Milroy, W., & Temara, P. (2013). I te mate kua ora, I te ngaro kua kitea, I te pōuri kua kitea. In S. Edwards & R. Hunia (Eds.), *Dialogues of Mātauranga Maori: Re-membering*. Te Wānanga o Aotearoa.

Murphy, N. (2011). *Te Awa Atua, Te Awa Tapu, Te Awa Wahine. An examination of stories, ceremonies and practices regarding menstruation in the pre-colonial Māori world* [Thesis, University of Waikato]. <https://hdl.handle.net/10289/5532>

Pendergrast, A., & Pendergrast, K. (2022). Building the world for everyone. In A. Pendergast & K. Pendergast (Eds.), *More zeros and ones: Digital technology, maintenance and equity in Aotearoa New Zealand*. Bridget Williams Books.

Pihama, L. (2001). *Tihei mauri ora: Honouring our voices: mana wahine as a kaupapa Māori theoretical framework* [Thesis, University of Auckland]. <https://researchspace.auckland.ac.nz/handle/2292/1119>

Pihama, L., Smith, L. T., Simmonds, N., Seed-Pihama, J., & Gabel, K. (Eds.). (2019a). *Mana wahine reader, a collection of writings 1987-1998, Volume 1*. Te Kotahi Research Institute.

Rarere, M. (2022). The importance of whakapapa for understanding fertility. *Genealogy*, 6(2), 1-18. <https://doi.org/10.3390/genealogy6020026>

Reid, P., Paine, S.-J., Te Ao, B., Willing, E. J., Wyeth, E., Vaithianathan, R., & Loring, B. (2022). Estimating the economic costs of indigenous health inequities in New Zealand: A retrospective cohort analysis. *BMJ Open*, 12(10), 1-8. <https://doi.org/10.1136/bmjopen-2022-065430>

Skogstad, L. (2024). *Against human extraction design: Designing with Māori*. Springload. Retrieved 3 September, 2024 from <https://www.springload.co.nz/blog/against-human-extraction-design/>

Smith, L. T. (2019). Māori women: Discourses, projects and mana wahine. In L. Pihama, L. T. Smith, N. Simmonds, J. Seed-Pihama, & K. Gabel (Eds.), *Mana wahine reader, a collection of writings 1987-1998, Volume I*. Te Kotahi Research Institute.

Smith, L. T., & Hohepa, M. K. (1990). *Mana wahine, mana Maori: A case study*. Maori Education Research and Development Unit, Education Dept., University of Auckland.

Stoddart-Smith, C. (2016). Radical kaupapa Māori politics. In M. Godfery (Ed.), *The interregnum: Rethinking New Zealand*. Bridget Williams Books Limited.

Waiora Systems (2022). *Ngā Tohu Waiora — A framework to measure waiora*. Waiora Systems.

Tamarapa, A. (2019). *Kākahu kura/kahu kura (kākā feather cloak)*. Te Papa. Retrieved 31 October, 2024 from <https://collections.tepapa.govt.nz/object/64847>

Tapiata, H. (2017). *Hineahuone is a prime example: We have everything we need*. Retrieved 3 September, 2024 from <https://www.hanatapiata.com/blog/hineahuone>

Te Wānanga o Aotearoa (n.d.). *Understanding rangahau*. Retrieved 3 September, 2024, from <https://www.twoa.ac.nz/hononga-stay-connected/news-events/2017/11/21/understanding%20rangahau>

Bibliography

Barlow, C. (1991). *Tikanga whakaaro: Key concepts in Māori culture*. Oxford University Press.

Barnes, H., & McCreanor, T. (2019). Colonisation, hauora and whenua in Aotearoa. *Journal of the Royal Society of New Zealand*, 49, 1–15. <https://doi.org/10.1080/03036758.2019.1668439>

Benge, A., O'Brien, L., & Van Beek, K. (Eds.). (2024). *Otherhood: Essays on being childless, childfree and child-adjacent*. Massey University Press.

Berghan, G., Came, H., Coupe, N., Doole, C., Fay, J., McCreanor, T., & Simpson, T. (2017). *Te Tiriti o Waitangi-based practice in health promotion*. STIR: Stop Institutional Racism. <https://trc.org.nz/trea-ty-waitangi-based-practice-health-promotion>

Came, H., Kidd, J., & McCreanor, T. (2022). Re-imagining anti-racist theory for the health sector. *New Zealand Medical Journal*, 135(1554), 105–110. <https://nzmj.org.nz/media/pages/journal/vol-135-no-1554/re-imagining-anti-racist-theory-for-the-health-sector/88c3164c36-1696476927/re-imagining-anti-racist-theory-for-the-health-sector.pdf>

Cassim, S., Kidd, J., Rolleston, A., Keenan, R., Aitken, D., Firth, M., Middleton, K., Chepulis, L., Wong, J., Hokowhitu, B., & Lawrenson, R. (2021). Hā Ora: Barriers and enablers to early diagnosis of lung cancer in primary healthcare for Māori communities. *European Journal of Cancer Care*, 30(2), 1-8. <https://doi.org/10.1111/ecc.13380>

Chamberlain, S. G., Vogelsong, K. M., Weinberger, M., Serazin, E., Cairns-Smith, S., & Gerrard, S. E. (2020). Reboot contraceptives research—It has been stuck for decades. *Nature*, 587(7835), 543–545. <https://doi.org/10.1038/d41586-020-03287-0>

Country, tebrakunna., Lee, E., & Evans, J. (Eds.). (2021). *Indigenous women's voices: 20 years on from Linda Tuhiwai Smith's decolonizing methodologies* (1st ed.). Zed Books.

Dell, K. (2021). Rongomātau – 'sensing the knowing': An indigenous methodology utilising sensed knowledge from the researcher. *International Journal of Qualitative Methods*, 20, 1-13. <https://doi.org/10.1177/16094069211062411>

Edwards, S. (2009). *Titiro whakamuri kia marama ai te wao nei: Whakapapa epistemologies and Maniapoto Māori cultural identities* [Thesis, Massey University]. <http://hdl.handle.net/10179/1252>

Edwards, S., & Hunia, R. (Eds.). (2013). *Dialogues of Mātauranga Māori: Re-membering*. Te Wānanga o Aotearoa.

Elder, H. (2022). *Wawata: Moon dreaming*. Penguin Random House New Zealand.

Elkington, B., Jackson, M., Kiddle, R., Mercier, O. R., Ross, M., Smeaton, J., & Thomas, A. (2020). *Imagining decolonisation*. Bridget Williams Books Ltd.

Farr, M. (2018). Power dynamics and collaborative mechanisms in co-production and co-design processes. *Critical Social Policy*, 38(4), 623–644. <https://doi.org/10.1177/0261018317747444>

Godfery, M. (Ed.). (2016). *The interregnum: Rethinking New Zealand*. Bridget Williams Books Limited.

Harcourt, N., Awatere, S., Hyslop, J., Taura, Y., Wilcox, M., Taylor, L., Rau, J., & Timoti, P. (2022). Kia manawaroa kia puawai: Enduring Māori livelihoods. *Sustainability Science*, 17(2), 391–402. <https://doi.org/10.1007/s11625-021-01051-5>

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>

Jones, P.H. (2014). Systemic design principles for complex social systems. In: G. Metcalfe (Ed.) *Social systems and design. Translational systems science*, 1. Springer. https://doi.org/10.1007/978-4-431-54478-4_4

Kidd, J., Came, H., Doole, C., & Rae, N. (2022). A critical analysis of Te Tiriti o Waitangi application in primary health organisations in Aotearoa New Zealand: Findings from a nationwide survey. *Health & Social Care in the Community*, 30(1), 105–112. <https://doi.org/10.1111/hsc.13417>

Kidd, J., Cassim, S., Rolleston, A., Chepulis, L., Hokowhitu, B., Keenan, R., Wong, J., Firth, M., Middleton, K., Aitken, D., & Lawrenson, R. (2021). Hā Ora: Secondary care barriers and enablers to early diagnosis of lung cancer for Māori communities. *BMC Cancer*, 21, p 1-9. <https://doi.org/10.1186/s12885-021-07862-0>

Kidd, J., Cassim, S., Rolleston, A., Keenan, R., Lawrenson, R., Sheridan, N., Warbrick, I., Ngahehu, J., & Hokowhitu, B. (2021). Hā Ora: Reflecting on a Kaupapa Māori community-engaged co-design approach to lung cancer research. *International Journal of Indigenous Health*, 16, 192-207. <https://doi.org/10.32799/ijih.v16i2.33106>

Kim, E.-J., Nam, I.-C., & Koo, Y.-R. (2022). Reframing patient experience approaches and methods to achieve patient-centeredness in healthcare: scoping review. *International Journal of Environmental Research and Public Health*, 19(15), 1-19. <https://doi.org/10.3390/ijerph19159163>

Kimmerer, R. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants*. Milkweed Editions.

King, P. T., Cormack, D., Edwards, R., Harris, R., & Paine, S.-J. (2022). Co-design for indigenous and other children and young people from priority social groups: A systematic review. *SSM - Population Health*, 18, 1-10. <https://doi.org/10.1016/j.ssmph.2022.101077>

Macinnis-Ng, C., Hikuroa, D. C. H., & McAllister, T. (2023, March 30). *Indigenous knowledge offers solutions, but its use must be based on meaningful collaboration with indigenous communities*. The Conversation. <http://theconversation.com/indigenous-knowledge-offers-solutions-but-its-use-must-be-based-on-meaningful-collaboration-with-indigenous-communities-201670>

Mark, S., & Hagen, P. (2020). *Co-design in Aotearoa New Zealand: A snapshot of the literature*. Auckland Co-design Lab and Auckland Council.

Matata-Sipu, Q. (2021). *Nuku: Stories of 100 indigenous women*. Qiane Matata-Sipu of QIANE+co.

McAllister, T., Hikuroa, D., & Macinnis-Ng, C. (2023). Connecting science to indigenous knowledge: Kaitiakitanga, conservation, and resource management. *New Zealand Journal of Ecology*, 47(1), 1–13. <https://doi.org/10.20417/nzjecol.47.3521>

McKercher, K. (2020). *Beyond sticky notes: Co-design for real: Mindsets, methods and movements*. Inscope Books.

Mead, S. M. (2016). *Tikanga Māori: Living by Māori values* (Revised edition). Huia Publishers.

Meadows, D. H., & Wright, D. (2009). *Thinking in systems: a primer*. Earthscan.

Mills, C., Reid, P., & Vaithianathan, R. (2012). The cost of child health inequalities in Aotearoa New Zealand: A preliminary scoping study. *BMC Public Health*, 12(384), 1-11. <https://doi.org/10.1186/1471-2458-12-384>

Murphy, N. (2014). *Waiwhero: The red waters* (S. Ellison, Trans.). He Puna Manawa Ltd.

Nemani, M., Thorpe, H., Hemi, K., & Rolleston, A. (2024). 'You made us feel at home': Towards indigenous feminist methodologies with young wahine in sport and exercise. *Qualitative Research in Sport, Exercise and Health*, 16(1), 53–67. <https://doi.org/10.1080/2159676X.2023.2250536>

Nikora, L. W., & Ruru, J. (Eds.). (2021). *Ngā kete mātauranga: Māori scholars at the research interface*. Otago University Press Te Whare Tā o Te Wānanga o Ōtākou.

Pendergrast, A., & Pendergrast, K. (Eds.). (2022). *More zeros and ones: Digital technology, maintenance and equity in Aotearoa New Zealand*. Bridget Williams Books.

Pharazyn, R. (n.d.). *Stages of growth*. Ministry for Culture and Heritage Te Manatu Taonga. Retrieved 1 September, 2024, from <https://teara.govt.nz/en/artwork/10022/stages-of-growth>

Pihama, L., Smith, L. T., Simmonds, N., Seed-Pihama, J., & Gabel, K. (Eds.). (2019b). *Mana wahine reader, a collection of writings 1999-2019, Volume II*. Te Kotahi Research Institute.

Pihama, L., Southey, K., & Tiakiwai, S. (Eds.). (2015). *Kaupapa rangahau: A reader: A collection of readings from the Kaupapa rangahau workshop series*. Te Kotahi Research Institute.

Reweti, A. (2022). *Mā te whiritahi, ka whakatutuki ai ngā pūmanawa ā tāngata: Together weaving the realisation of potential - Exploring the social, cultural and health benefits of whānau-centred initiatives* [Thesis, Massey University]. <http://hdl.handle.net/10179/17890>

Reweti, A., & Severinsen, C. (2022). *Waka ama: An exemplar of indigenous health promotion in Aotearoa New Zealand*. John Wiley and Sons Australia, Ltd on behalf of the Australian Health Promotion Association. <https://doi.org/10.1002/hpia.632>

Robert, G., Locock, L., Williams, O., Cornwell, J., Donetto, S., & Goodrich, J. (2022). *Co-producing and co-designing* (1st ed.). Cambridge University Press. <https://doi.org/10.1017/9781009237024>

Rolleston, A. K., Cassim, S., Kidd, J., Lawrenson, R., Keenan, R., & Hokowhitu, B. (2020). Seeing the unseen: Evidence of kaupapa Māori health interventions. *AlterNative: An International Journal of Indigenous Peoples*, 16(2), 129–136. <https://doi.org/10.1177/1177180120919166>

Royal, T. A. C. (n.d.). *Women and land*. Ministry for Culture and Heritage Te Manatu Taonga. Retrieved 3 September, 2024, from <https://teara.govt.nz/en/papatuanuku-the-land/page-3>

Selby, R. (1999). *Still being punished*. Huia Publishers.

Smith, D., Wighton, A., Cornell, S., & Delaney, A. V. (2021). *Developing governance and governing development: international case studies of indigenous futures*. Rowman & Littlefield Publishers, Incorporated.

Smith, H. L. (2017). *Whatuora: Whatu kākahu and living as Māori women* [Thesis, University of Auckland]. <https://researchspace.auckland.ac.nz/handle/2292/36334>

Smith, L. T. (1998). *Decolonizing methodologies: Research and indigenous peoples*. Zed Books.

Stokes, G. (2022). Whakapapa plotting: An Aotearoa-specific method of spatial communication. *idea journal*, 19(1), 200–217. <https://doi.org/10.37113/ij.v19i01.468>

Tapiata, H. (2024). *Atua Wāhine*. HarperCollins Publishers.

Vikram, A., Siniscalchi, M., & Banerji, A. (2022). *A case for co-production*. BPS. Retrieved 3 September, 2024, from <https://www.bps.org.uk/psychologist/case-co-production>

Warbrick, I., Makiha, R., Heke, D., Hikuroa, D., Awatere, S., & Smith, V. (2023). Te maramataka - An indigenous system of attuning with the environment, and its role in modern health and well-being. *International Journal of Environmental Research and Public Health*, 20(3), Article 3. <https://doi.org/10.3390/ijerph20032739>

Wehi, P. M., Whaanga, H., Roa, T., & Cox, M. P. (2024). Woven languages: Understanding indigenous socioecological systems. *Trends in Ecology & Evolution*, 39(10), 881–884. <https://doi.org/10.1016/j.tree.2024.08.004>

Wilson, D., Moloney, E., Parr, J. M., Aspinall, C., & Slark, J. (2021). Creating an indigenous Māori-centred model of relational health: A literature review of Māori models of health. *Journal of Clinical Nursing*, 30(23–24), 3539–3555. <https://doi.org/10.1111/jocn.15859>

Artworks

Fig 1.

Robyn Kahukiwa, *Hinetitama*, 1980, Oil on board
Collection of Te Manawa Art Society Inc.

Reproduced courtesy of Te Manawa Museums Trust
Photograph by Natalie Friend

From <https://nzhistory.govt.nz/media/photo/hinetitama-robyn-kahukiwa>

Fig 7.

Kura Te Waru Rewiri, *la ra, la po (In Te Po there are many beginnings)*, 1994, Acrylic and tempera on canvas.

Private Collection, Wellington.

From Borell et al., 2020

