ANNE-MARIE JACKSON

Wāhine Māori Reflections on Wai

As Māori we are strongly connected to the ocean and to the water. These connections form the fabric of who we are and of our identity. As we age and mature, the nature of our relationship to the water changes as well. In this series of papers, we will share some of our insights and reflections about being wāhine Māori today and the connections of indigenous identity to the ocean, to water and to the world in general. We are four researchers from Te Koronga, a Māori research excellence kaupapa based at the University of Otago. Tēnei mātou te koronga.

Anne-Marie Jackson Ngāti Whātua, Ngāti Kahu o Whangaroa, Ngāpuhi, Ngāti Wai Chanel Phillips Ngāti Hine, Ngāpuhi Chelsea Cunningham Ngāti Kahungunu Ngahuia Mita Te Aitanga-ā-Māhaki, Te Koronga, University of Otago, School of Physical Education, Sport and Exercise Sciences

Figure 1. Te Koronga logo which was designed by Mr Keanu Townsend (Ngāti Whātua, Ngāti Kahu o Whangaroa, Ngāpuhi, Ngāti Wai, Te Roroa). Keanu describes the logo in the following way:

This design embodies kaitiakitanga, Matariki, knowledge of the sky, astronomy and navigation. The mountaintops signify striving for success and reaching the summit, which also represent the three baskets of knowledge. The manaia represents guardianship of the elements for next generations. The fish scales represent the ocean. The harakeke represents the land and the unity of different iwi. Pūhoro represent the flow of life and connects all of the elements together

(personal communication, Keanu Townsend, October 2016).

ANNE-MARIE JACKSON

How Tikanga Shapes Identity

Nō Ngāti Whātua, Ngāti Kahu, Ngāpuhi, Ngāti Wai ahau. He kairangahau Māori ahau i roto i te Kura Para-Whakawai. He kaihautū ahau o te rōpū rangahau o Te Koronga hoki.

My whakapapa (genealogical links) on my Mum's side are to Ngāti Whātua, Ngāti Kahu, Ngāpuhi and Ngāti Wai. These iwi (tribes) are located in Te Taitokerau (Northland). My Dad, who is non-Māori, is from Milton, a small town in South Otago. I grew up in rural Southland, a long way from my ancestral places, yet we were fortunate in that our Mum often took my younger sister and me to Northland as children, and we spent many summers as well as some of our schooling in Northland. There is a geographical aspect to identity, of belonging and of tūrangawaewae, or the places where one's feet (waewae) are literally woven (ranga) to their standing place (tū). In reflecting on my childhood, I can see now how, despite the geographical disconnect and growing up during the 1980s where there were heightened racial tensions, our parents strengthened our identity. I remember experiences from my own childhood that framed my identity, and one of the constants was the water – the ocean and rivers.

When I grew up I was always scared of the ocean. We spent a lot of time swimming and fishing in rivers around rural Southland. I think when you grow up in Southland, you always hear about the stories of Foveaux Strait, and of different whānau who may have died due to a boating or fishing accident. These considerations, coupled with what at the time appeared to be odd superstitions, or scare tactics directed at a child, were in fact different tikanga that my Mum would teach us, which made us cautious of the ocean. For example, my Mum would often say, "We don't go to the ocean to go swimming, we go to get a feed." She grew up in the Far North, in and around Dargaville on the west coast. The beaches there, Baylys in particular, are extremely unforgiving and are certainly not swimming beaches. However, Baylys is renowned for its kai, and this is a place where we would frequently collect kai, especially toheroa. I would always be told to "never turn your back on the ocean," "not to swim at night," or "not to go when you had your period" when I was a teenager.

As I have grown older, I have come to realise that these different kōrero (stories) were part of the tikanga or guidelines that were laid down for me as a child as protection mechanisms for being in and around the water, and the ocean in particular. Much of my research work today is about trying to understand the tikanga for activities in and around the water and how these relationships have changed today.

We spent a lot of time in summer in the backblocks of Northern and Western Southland, where the days are long and the nights are short, floating on lilos or rubber tyres down the rivers and streams. I would bike around with my best friend at the time, my next-door neighbour, to catch cockabillies down at the creek. As a whānau, we would be down at Blackridge, a local swimming hole, swinging off the rope and jumping into the river. I grew up in a time when you could get a key to the local swimming pool, and it would cost each family around $10 for the whole summer. These experiences were what framed my relationship with the water. As I think about some of my current research, the experiences that whānau share with me, our researchers and our students, illustrate their limited access to their waterways, or their freedom – due to the cost of living, for example – to be able to engage in these activities.

Growing up under the shadow of the Takitimu mountains, it was probably not until I was older that I realised the significance of the mountain range that I saw every day as a young person, and the stories, knowledge and connections that Takitimu holds in relation with the ancestral waka, Takitimu. We would spend hours on end fishing and eeling with my Dad around Takitimu and Fiordland; we were probably more hindrance than help. After a good day, I would watch him travel around to the old people's homes in the communities and drop off a fish, or shellfish, eels or whatever it was that we collected on that day. As a child and as a teenager, you are exposed to these normal practices as a whānau, which at the time you pay little attention to. Some of the work we undertake now is focused on trying to understand the significance of kōrero and mātauranga (knowledge) relating to significant sites that frame the relationship that we have with the water.[1]

Growing up in Ngāi Tahu, I have probably taken for granted some of the practices – and the kai in particular – that were a normal part of my upbringing. As a child of the '80s, I have distinct memories of muttonbirds or tītī "stinking out" our house, with my Mum having stern words with my Dad about "cooking those birds outside!" Now, as an adult, I recognise the significance of tītī in particular and the rich history of tītī when you grow up in the deep south. I have memories of collecting toheroa (which I have written about previously) as a child, and also of having to mince pāua, smoke eels, gut trout with Dad, and help him prepare the hāngī at my primary school – the list goes on. These practices of mahinga kai are still relatively intact today, and certainly impacted on my own identity and relationship with the water.[2]

There are many things that I have missed out in this narrative, and I have painted a somewhat romantic picture of growing up in rural Southland in the 1980s and 1990s. There were significant issues at the time such as strained Treaty of Waitangi relationships; being "the Māori family" in a small town; growing up outside of your ancestral landscape and how this shapes your identity; and growing up in a rural, agricultural town with 'limited educational opportunities,' which led to us attending boarding school in 'town,' in Invercargill. Each of these issues impacted on my identity in different ways. On reflection, my parents each shaped our identity through tikanga of the water in their different ways. Mum did this through tikanga via kōrero and oral guidelines and her upbringing in the North. Dad shaped our identity through the practice of tikanga – through fishing, for example. Tikanga through the water, and through kai in particular, have certainly shaped my own identity as a Māori person, and this is a lens through which I engage my son, who is 11, in his Māori identity.

If I think about my own experiences of childhood and those of my son now, there are some similarities, yet many societal differences that he is faced with, which were not evident when I grew up – or perhaps they were, but I just didn't notice them. The nature of our relationship with the water has certainly changed due to contextual factors such as environmental degradation, urbanisation – and also living in a risk-averse society. As a concluding statement, I want to emphasise that what has not changed is the underlying importance of tikanga, guiding our interactions with the water and thus framing our identity.

Nō Ngāti Whātua, Ngāti Kahu, Ngāpuhi, Ngāti Wai ahau. He kairangahau Māori ahau i roto i te Kura Para-Whakawai. He kaihautū ahau o te rōpū rangahau o Te Koronga hoki. **Anne-Marie Jackson** is a Māori researcher in the School of Physical Education, Sport and Exercise Sciences at the University of Otago. She is also co-director of the research group Te Koronga.

1. A-M Jackson, N Mita and H Hakopa, "Hui-te-ana-nui: Understanding Kaitiakitanga in our Marine Environment," report prepared for *Ngā Moana Whakauka – Sustainable Seas National Science Challenge*, 2017. Accessible at https://sustainableseaschallenge.co.nz/sites/default/files/2018-04/SusSeas%2C%20Hui-te-ana-nui%20-%20Understanding%20kaitiakitanga%20in%20our%20marine%20environment%2C%20July%202017%20FINAL_0.pdf.
2. C Phillips, A-M Jackson and H Hakopa, "Creation Narratives of Mahinga Kai: Māori Customary Food Gathering Sites and Practices," *MAI Journal*, 5:1 (2016), 65-75.

CHANEL PHILLIPS

Reflections of A Ngāti Hine Wahine on Being Tāngata Moana

Te Tauparapara a Hineāmaru

Ka papa te whatitiri	The thunder crashes,
Ka hikohiko te uira	the lightning flashes,
Kahukura ki te rangi	a rainbow adorns the sky.
He ai tū ka riri rongo mai ka hē	An angry calamity is heard that troubles
Ko Ngunguru	It is Ngunguru
Ko Ngangana	It is Ngangana
Ko Apārangi	It is Apārangi.
Ko te titi o te rua,	Poised at the pit,
ko te tao whakawahine	is the spear of womanhood
Ko te tao horo	The fatal spear (of Hineāmaru)
Ko te motumotu o te riri	The angry fire (of Hineāmaru)
Ko te awa o ngā rangatira Taumārere	The River of chiefs, Taumārere,
herehere i te riri	that binds up arguments
Te rere i Tiria	The falls at Tiria
Te puna i Keteriki, Keteriki,	The springs at Keteriki, Keteriki,
kete tana riki	the basket of springs
E tū atu nei Ngāti Hine pukepukerau	Standing in the many hills of Ngāti Hine.
Tihei wā mauri ora!	Let there be life!
Ko Motatau te maunga	Motatau is my mountain
Ko Taikirau te awa	Taikirau is my river
Ko Ngātokimatawhaorua te waka	Ngātokimatawhaorua is my canoe
Ko Ngāpuhi te iwi	Ngāpuhi is my tribe
Ko Ngāti Hine te hapū	Ngāti Hine is my people
Nō Te Taitokerau ahau	I am from Northland
Ko Chanel Phillips tōku ingoa.	My name is Chanel Phillips.

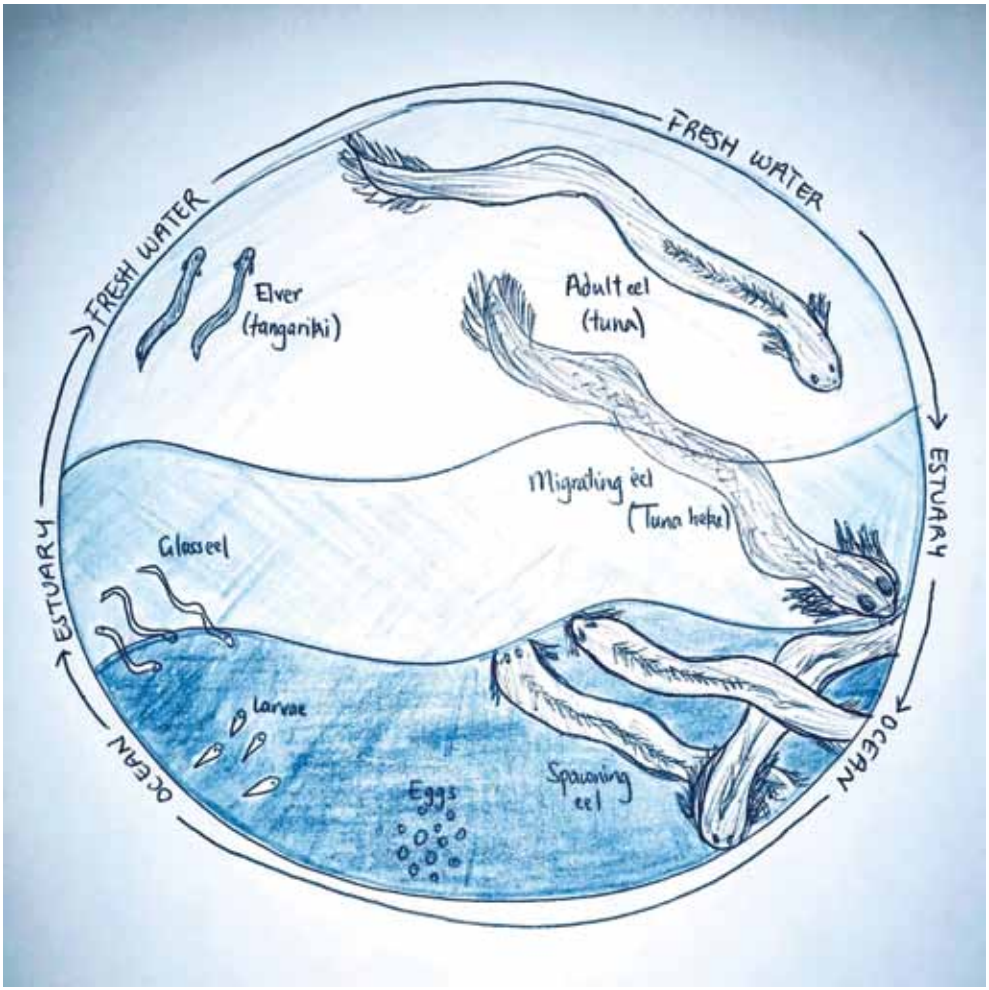

Figure 1: The life cycle of the tuna. Drawing from C. Phillips, June 2018.

As a Ngāti Hine woman, my understanding of my connection and relationship to the moana (ocean) and wai (water) is intricately woven into the lines of this Ngāti Hine tauparapara (incantation). It makes reference to our river of chiefs, Taumārere, the Otiria waterfalls I grew up swimming in, and the journey of the elvers (baby eels) as they make their way home – all under the shelter and mana of Ngāti Hine pukepuke rau, the many hills of Ngāti Hine.

My notion of water is holistic and cyclic. While tāngata moana commonly refers to 'ocean people,' the cyclic nature of water and its whakapapa (genealogy) makes me believe that all water is connected, and therefore the concept of tāngata moana embodies being people of both the saltwater and freshwater. For example, I work with whānau from other iwi who believe that Tangaroa (the deity of the ocean) originates at their mountain, not out at sea.

More specific to Ngāti Hine, I am reminded of the journey of our taonga (treasure), the tuna (eel), as they migrate from the mountains to the sea and return again through their offspring, the tangariki (elvers). This is depicted in the figure above and is referenced in the tauparapara above in the line "te puna i Keteriki Keteriki, kete tana riki." This refers to the traditional practice of our old people, who would gather the tangariki in kete (baskets) at the base of the Otiria waterfall and carry them upriver to the spring (puna), Keteriki, to help them on their journey.

The way that the tangariki make their way home (what Ngāti Hine refer to as "the journey to belonging") is how I understand the intricate connections of water and interpret the meaning of the phrase tāngata moana. The tuna relies on water of all types as they make their journey from fresh water through estuarine waters and out into the ocean, where they spawn their eggs and later die. Over time, the eggs hatch and slowly make their way back home to the rivers their parents came from. The ocean is both the birthplace and final resting place of the tuna.

The journey to belonging, as we call it, is then about how the tangariki make their way back home, to their rivers, the source of their identity. It is the same for the people of Ngāti Hine. We are of the waters that we come from. In this sense, for me tāngata moana means to be like the tangariki: born of the ocean, but understanding that the source of our identity comes from the mountains and rivers that sent us there. Again, in the same way that the ocean is the birthplace and final resting place of the tuna, we similarly believe that in our death, while our body goes back to the land, our wairua makes the journey to Cape Reinga at a place called Te Rerenga Wairua and travels along the ocean back to our ancestral homelands of Hawaiki.

The pepeha (tribal saying) that follows the tauparapara locates where I am from and therefore who I am. It is a mihi (greeting) to those people and places to which I belong and encompasses my identity as Ngāti Hine, as Ngāpuhi, as Māori. To recite my pepeha is to connect myself back to my tūrangawaewae (place of belonging) and to draw me to the lands and waters that sustained my tūpuna (ancestors) who brought me into this world.

My pepeha is encoded with place names that hold reverence for Ngāti Hine; with our names come our stories, and with our stories we strengthen everything about who we are, and how we come to know who we are. For example, my river Taikirau is named for the many (rau) tāiki (wicker baskets) that were used to hold the abundance of tuna caught from our river. For me and similarly the tangariki, it is through water that our identity is born, which is why when we ask someone who they are and where they come from in our language, it is literally asking someone whose waters are you (ko wai koe?) and from which waters do you descend (nō wai koe?).

Tāngata moana for me encompasses the cyclic nature of water, one that begins at our maunga (mountain), traverses our awa (river) and flows out to sea, returning back to the maunga once more.

Chanel Philips has a PhD in Māori Health and Physical Education from the University of Otago.

CHELSEA CUNNINGHAM

Where Whakapapa Engagement Can Take You

Nō Ngāti Kahungunu ahau. He tauira au i roto i te Kura Para-Whakawai.

When I think about my most vivid memories of water, I instantly think of our whānau trips to the rivers, Ngaruroro and Tukituki. Raised in Hastings, I was lucky enough to have shared experiences with my whānau of our ancestral landscapes and awa (waterways). These experiences and my whānau have played a vital role in where I am today as a wahine Māori, as a researcher and in the development of my Ngāti Kahungunu identity.

Our awa played a big part in our summers growing up. A regular day was to head down to the awa, take a chillybin full of kai and just be in and out of the water all day, with an occasional sandwich in between sessions. If that wasn't the case, we would often have whānau dinners at Nan's and then wait till the sun went down and head down to our eeling spot.

For as long as I can remember, I've always felt safe when around any waterways, and I give that credit to Mum. She was a competitive swimmer and surf lifesaver in her younger years, so anything I know about the water, particularly the river and ocean, is all from her and her experiences. Till this day, I always hear her voice telling me, "If it's pulling you, just relax, float and let it take you till it stops" – her wise words for getting out of strong currents or rips.

It's interesting to think now that all of my most memorable experiences of the water have been with my whānau. It's not surprising though, as we've always been close. Our eeling expeditions were always classic events – threatening to push one another in, being so proud and slightly arrogant when you got the first eel of the night, but then being low-key terrified to even touch it to get it off the hook.

Being within an academic realm now, I'm sure there are many who count off their experiences when it comes to finishing or working on a thesis, a masters or a doctorate. There are times when you are in a very deep space; you question yourself, "Why am I here?," "I can't do this, why did I think I can?" – the list goes on and on. I've been there plenty of times. These memories of awa adventures are often the first thing I try and tell myself to remember, they are my "why." Why I am even here in the first place, why I'm in an office writing, why I chose this research topic, why it is important and why I need to finish and get over myself.

I believe that I am in the best position I could be in right now. I get to research and spend my days thinking, talking and reading about my whakapapa. I am currently reading over my interview transcripts with a couple of my aunties about their engagement with our awa, Ngarururoro. The strength given by understanding this knowledge and our connection is so important to our well-being, especially when immersed in modern society. I will share some of our kōrero in the hope that it can influence and project an understanding of the power of water in life.

Our awa, Ngarururoro, owes its name to the tidal influx of fish. The explorer Mahu Tapoanui was in the area and his dog disturbed a shoal of upokororo (grayling) while crossing the river. The upokororo took fright and fled up the river, creating ngaru (waves).[1] The awa has since been known as Ngarururoro. It is a very historical river as well. It was at the river mouth where Taraia, the man who led the migration of Ngāti Kahungunu to the area, dipped his calabash into the water and drank from it. It was at that moment that he took possession of the land.

Back when Nan was growing up, the awa was much bigger, in terms of width and also current. Walking along the riverbank was a daily task for Nan, her siblings and her cousins; it was the route to school. After school, it was mostly just about swimming. All the aunties have mentioned how bountiful the awa was – eels, flounder and inanga. Aunty shares a story about her dad catching between "140 and 160 flounder in one night" for a wānanga at the pā for Labour Weekend; something that you probably couldn't even imagine today.

Unfortunately, today our awa is not engaged with as it once was by our people. In the 1960s, due to flooding, the awa was redirected so that it could take on larger volumes of water. The redirected river took the name Ngarururoro, while our awa took the new name of the Clive River in 1975. The awa that sits behind our marae, which used to be strong and also bountiful with kai, now almost has no current. Recently, it made headline news due to hundreds of dead mullet covering the surface of the water due to excess weeds. Our awa is, as Aunty says, "suffering a slow death." This is disturbing, considering the significance it holds for our identity.

My most recent visit to the awa was over the summer; I went biking along the riverbank, trying to imagine the stories my aunties had told me. It was then that I realised we need to recreate these stories, and make some of our own, because we can't afford to have another generation miss out on it. We stand and recite "Ko Ngarururoro te awa" – it's a part of us and our identity as Ngāti Kahungunu. My research is about reconnecting whānau to our ancestral landscapes in order to enhance our identity and well-being. We may not be able to swim in our awa, but we can paddle on it for the time being – it's in need of our mauri to revitalise it.

It is this that continues to drive me. Our awa needs us now, we need to engage with it, and I intend to do so the only way I know how, with my whānau.

Nō Ngāti Kahungunu ahau. He tauira au i roto i te Kura Para-Whakawai. **Chelsea Cunningham** is a PhD student in the School of Physical Education, Sport and Exercise Sciences at the University of Otago.

1. P Parsons, "Tāne-nui-a-rangi," *Kohupātiki Marae Centennial Booklet* (Clive: Kohupātiki Marae, 2013).

NGAHUIA MITA

Reflections of an East Coast Wahine on being Tangata Moana

He tamaiti ahau, ō ngā hau me ngā wai o te Tairāwhiti
I am a child of the winds and the waters of te Tairāwhiti

Tirohia ki ngā maunga e tū ake nei.
Kei waenganui i ērā, ko tēnei te kōrero.
Ka tū a Paoa ki runga i te maunga
hei whai rākau kia whakatikaina te waka.
Ko tērā te ipu i hāria e ōku tīpuna, ko tōna waka o Horouta.
I runga i taua maunga, i rapu i a ia te rākau mārō.
Ka tope mai i te rakau, hei haumi mō te waka,
arā ko Maungahaumi.
Mai i te tihi o te maunga, ka tārere te wai o Paoa ki Tūranga.
Ko tērā te awa e rere ana
i roto i a au, ko Waipaoa.
Mai i te maunga ki ngā piko o te awa, ko ngā wāhi pūrotu o Māhaki.
Nō reira, tēnei au, he uri o Māhaki
Titiro anō ki te wai rangatira o Waihīrere, ko tērā te waiheke hei
whakaorangia ōku tīpuna.
Ko tērā te tūranga o Ngāti Wāhia te hapū.
Ko te marae e tū iho nei, ki raro i te maru o Ahitītī, ko Parihimanihi.
Ko Te Poho-o-Māhaki te whare e mirimiritia ana ō mātou wairua. Ko te Kura-a-Māhaki te whare e whāngaia ana ō mātou tinana.
Ko Tūranganui-a-Kiwa tōku tūrangawaewae, hei whakatūāpapa i ahau.
He tamaiti au o ngā hau me ngā wai o te Tairāwhiti.

Look to the mountains standing steadfast –
within them is this story.
Paoa stood atop the mountain,
seeking the tree to fix the Horouta waka,
the vessel that brought my ancestors here.
On that mountain he found a suitable and strong tree,
which he felled, for the haumi of the canoe;
thus the mountain is known as Maungahaumi.
From the peak of the mountain soars the water of Paoa to Tūranga;
that is the river that runs through me, it is Waipaoa.
From the mountain to each bend of the river are the beautiful places of Māhaki.
Here I am, a descendant of Māhaki.
Look again to the chiefly water of Waihīrere, the waterfall
that gave life to my ancestors,
the standing place of the whānau of Ngāti Wāhia.
Parihimanihi is the marae that stands tall and everlasting under the protection of Ahitītī.
Te Poho-o-Māhaki is
the house that looks after our spirits;
Te Kura-a-Māhaki is the house that feeds our bodies.
Tūranganui-a-Kiwa, Gisborne, is my ultimate standing place.
I am a child of the winds and the waters of the East Coast.

The ocean resonates strongly with me. I grew up participating and competing in waka ama (outrigger canoe) races, which led me to cultivate a love of waka and of Tangaroa. In 2014 I had the opportunity to voyage on a waka hourua (double-hulled sailing canoe) named Haunui from Rapaki to Tūranganui-a-Kiwa, Gisborne. This is an entry from a diary I kept during this voyage:

> Tonight we've seen some phosphorescent dolphins, which were "out of this world;" dolphins have a nice āhua (nature) about them – they seemed like kaitiaki (guardians) watching over us. After night shift, we watched te ata hāpara (dawn) – the sun took his time but the mountains, sea and sky looked amazing. Lesson for the day – connection to Tangaroa, find it and nurture it. Find it nurture it and love it.[1]

Reflecting on this entry and that voyage, I believe it was pivotal in providing me with a lived experience of the interactions between all the different atua (deities) that govern the natural world, especially Tangaroa. I felt the interactions of Tangaroa with other atua, such as Ranginui (deity of the sky) and Tawhirimātea (deity of wind and weather). My experience on the voyage was a powerful example of how connected to the environment and to these atua my ancestors were. Being part of the voyage and connecting physically, mentally and spiritually with the ocean for five days enabled me to see how a connection to the ocean can positively uplift all aspects of our being.

Growing up in the coastal city of Tūranganui-a-Kiwa, Gisborne, on the East Coast of the North Island, I have always had an intimate connection with the ocean. Throughout my childhood I was constantly exposed to oceanic environments, whether it be through waka ama, swimming or adventuring on the beach. I've been involved with waka ama from a young age, which has given me ample opportunities to be on the river and on the ocean. When I reflect on my experiences growing up and now, I have always had an affinity with the ocean and water. I believe this affinity is associated with my whakapapa. The piece I gave at the beginning of this essay is a poetic excerpt from my pepeha (tribal saying) and refers to the people and places that I descend from.

The story of Paoa and the Horouta waka, described in my pepeha, features significant sites and the presence of water. Thus I believe my affinity with and comfort on the water is associated with the connection and understanding that my ancestors had with, and of, their oceanic and water environments. These have been the entry points, from a personal perspective, to my research.

In the summer of 2014/15 I completed a Ngā Pae o te Māramatanga summer student internship, undertaking archival research in the Hocken and Alexander Turnbull libraries. The purpose of this internship, known as Tangaroa Ara Rau, was to examine Māori and Pacific archives in these libraries pertaining to Tangaroa.[2] In total, I analysed 35 different items across the two libraries. Completing this internship opened my eyes to the depth of knowledge and understanding that we, as Māori and as people of the Pacific, have about the ocean.[3] With each of these projects, my knowledge of both academia and Te Ao Māori has grown.

I have learnt about my own whakapapa and ancestral canoe, developed a Māori model of health based on a waka ama, examined the importance of waka hourua, relationships between people and place, and developed a historical overview of traditional understandings and interactions with the ocean. It was with this research journey behind me that I embarked on my Masters study, which led me to question the bigger picture about what, as Māori, constitutes our collective connection to the ocean. Before my Masters, my research had focused largely on waka and waka ama and their relevance to health and cultural identity. However, after completing these projects, I became increasingly aware that waka are important and are a taonga (treasure). However, of equal importance are the environments we connect with through waka. Thus I am interested in examining our connection to the ocean. How did we become connected? How is this connection expressed? What factors affect this connection? Further, because of my interest in and passion for Māori health and well-being, my interest originally stemmed from the question of how having a connection to the ocean interacts with and affects health from a Māori perspective.

To answer these questions, I worked with a small hapū (sub-tribe) based rōpū, Hauteruruku ki Puketeraki, in Karitāne on Te Tai o Araiteuru (the North Otago coast). I was able to gain an insight into what connection to the ocean looks like for local people, how this affects their health and well-being and how, by using waka as a vehicle, this whānau are enabling others to create and maintain their own connections. What this looks like for other whānau, hapū and communities (including my own) will be different, as is the nature of the ocean and ourselves as Māori. However, this is what both excites and inspires me to continue this work to uncover the intricacies of my own connections to the ocean and to Tangaroa, and those of my whānau, so that we are able to maintain positive health as a people.

Ngahuia Mita is a researcher in Te Koronga. She graduated with a Master's degree in Physical Education with distinction from the School of Physical Education, Sport & Exercise Sciences at the University of Otago.

1. Ngahuia Mita, personal diary entry, 18 May 2014.
2. Ngahuia Mita, "Tangaroa Ara Rau: Examining Māori and Pacific archives in the Hocken and Alexander Turnbull Libraries," unpub. internship report (University of Otago, 2014-15).
3. Ibid.

PAM MCKINLAY AND JESSE-JAMES PICKERY

Without the Ocean, We are Lost

The Bull and the Burning Ocean and Other Modern Tales from the Sea was our starting point for the artworks.[1] *The Bull and the Burning Ocean* took the form of a series of performed vignettes from the perspective of creatures who inhabit the sea, as they fight for survival in a world undergoing rapid changes caused by global warming. It was a performance piece in the Art + Oceans Project, made in response to research by Sustainable Seas scientists Candida Savage and Anne-Marie Jackson, plus CARIM researchers Anna Kluibenschedl and Ro Allen and Alexander Goikoetxea (fish genetics). It was first performed to open and close the exhibition, "Ōku Moana (My Oceans)," set in the 'narrative space' setting[2] of an installation called *Call of the Ocean: Line in the Sand.* Two parts of this work were later included in the parent exhibition, the Art + Oceans exhibition held at the HD Skinner Annex, Otago Museum, and are discussed below.

CALL OF THE OCEAN

In the photograph *Call of the Ocean: Tethys Hinemoana*, the first part of the title refers to a reciprocal call. The face in the photograph is an anthropmorphism of nature. While this is often seen as a feature of 'primitive' cultures, we believe this is actually one of our most sophisticated and yet simple ways to engage with 'nature.' Putting a face on the ocean allows us to engage with her as an entity and gives agency back to this body. We call the Ocean and we are in turn called by her.

The second part of the title references two ancient personifications of the ocean from Greek and Māori lore. Tethys was a figure from the time of the Titans. She was the daughter of Gaia (Earth) and was revered as the primal font of water which nourished the earth, as mother of the rivers, oceanids and clouds. Ancient stories reflect modern science as we begin to appreciate the water cycle and its impact on the weather and climate change, and the role the ocean takes in dictating climate and weather.

Tethys is also the name of the primordial ocean in deep-time geological history. First described by Melchior Neumayr in 1885[3] as a Jurassic seaway, the Tethys Ocean was the large ocean body between the ancient continents of Gondwana and Laurasia. Displaced by plate tectonics over many millennia, the Black, Caspian, and Aral seas are thought to be the surviving remnants of the Tethys. As the effects of climate change become more noticeable with rising sea levels, the Aral Seas are predicted once again to become a conjoined water mass, and a further chapter will be written in the font of Tethys.

Figure 1. Pam McKinlay and Jesse-James Pickery, *Call of the Ocean: Tethys Hinemoana*, 2018, photograph.

The counterpart of Tethys in the great Pacific Ocean (Te Moana Nui a Kiwa) is Hinemoana, a personification of the sea in Te Ao Māori. In some stories she is the wife of Kiwa and in others of Rangi the sky, and the origin of shellfish and all forms of seaweed. The seaweed family ever clings to their foster parents, Rakahore and Tuamata, rock and stones, in order to provide shelter for the other offspring of Hinemoana.[4]

We were also fortunate to be sharing space in the exhibition with artist Heramaahina Eketone, whose work *Ngā Kaitiaki* aligns with the call of Hinemoana Tethys.[5] The voice of Tangaroa replies to the karanga of the ocean with his own lament as he stands above a broken patu representing the degradation of the oceans.

Heramaahina says of this work:

> There are three kaitiaki (guardians of the ocean), the most famous being Tangaroa with Kiwa on his right and Kaukau on his left. Hinemoana, the personified form of the ocean, is represented through the colours used. One of the features of this piece are the pātiki (flounder) designs painted onto the carving that are a memorial to the decline of this food source, from the time when 70 fisherman on the Otago harbour made their living from the catch, to there being none today. This poupou is standing above the broken patu essentially asking you, me, us, "What's going on? What have you done?"[6]

Figures 2 and 3. Heramaahina Eketone, *Ngā Kaitiaki*, poupou carved from customboard with acrylic paint and patu carved from rimu.

FORTUNE SHELLS

Tethys Hinemoana gazed down on an installation of ceramic shells in *Where is the Line in the Sand?* "Line in the sand" is a saying which means the point (physical or metaphorical) beyond which one will proceed no further. Here we refer to tipping points in the marine environment, the consequences of which will cause a cascade of irreversible events in the immediate surroundings.[7] What we do on land has long-term and immediate impacts on our coastal and ocean environment, from water quality to long-term climate changes and changes in ocean chemistry. The stressors in marine environment are complex, not singular. The results will be catastrophic, should we go beyond the safe boundaries of these factors collectively.

As the shell work developed, we heard of several contemporary mass die-offs in shellfish beds around the country and, in response, decided to fire the shells as empty shells or shecks. The mass die-offs appear to have been caused by a number of factors including rising temperatures, increased ocean acidity from carbon dioxide-rich waters and anoxic conditions caused by man-made excesses of sedimentation.[8] These events tied Candida Savage's research into tipping points and stressors in estuarine health.

We used our knowledge of the science of firing and glaze chemistry to produce embedded carbon in the ceramic shells and glaze effects to tell the story of the tipping points encountered by the kaimoana in our visual story. Control of the oxygen/gas and temperature during the firing process determined the type of colours in the glaze and the amount of embedded carbon. The shells were over-fired to push the 'toxic' glaze effects in the majority of the shells, where the true (natural) blue, pink and green glazes were burnt off and the toxic oily reds and lustres remained. Raku firing creates an anoxic environment when the raku chamber is flooded with carbon dioxide gas at certain times during the process. Controlling the combustible material and the flow of smoke from the raku chamber determined how white or black the resulting ceramic surface would be.

The shells in this piece were originally intended to be 'fortune shells,' alluding to fortune cookies, in which we would place slips containing whakatauki (proverbs) as signifiers of future personal engagement in the environment and as metaphors for life. The whakatauki were found woven within the threads of Anne-Marie Jackson's (et al) report, "Hui-te-ana-nui: Understanding Kaitiakitanga in our Marine Environment," commissioned by Ngā Moana Whakauka: Sustainable Seas National Science Challenge. We took great heart from research into traditional Maori knowledge, which has brought together many strands that can inform ways to sustainably manage our marine resources from the perspective of kaitiakitanga, or guardianship. In the final piece, members of the public were invited to take away whakatauki from a kete alongside the empty shecks.

Figure 4. Geoff Reid, Shellfish die off at Long Bay–Okura Marine Reserve.
From Facebook photographs, 5 April 2108. Image courtesy of the photographer.

Figures 5 and 6, Pam McKinlay and Jesse-James Pickery, work in progress: ceramic shells, raku shells and detail of shell.

HUI-TE-ANA-NUI

To look to the future is also to look at our past and present. "Hui-te-ana-nui" looked at early texts containing matauranga Māori regarding the marine environment in the archives of the Hocken and Alexander Turnbull libraries. The report is a rich summary of whakapapa and traditional stories and sayings.[9]

Nā te hiahia kia titiro, ā, ka kite ai tātou te mutunga
You must understand the beginning if you wish to see the end

One of the cornerstones of science is to further knowledge. We are encouraged to explore, discover and share old and new knowledge that surrounds us, as in the three baskets of knowledge known as Ngā Kete o te Wānanga, a cohesive system of all forms of knowledge which can be drawn on and enacted collectively. Their constituents ought not to be considered in isolation from one another – the baskets are never completely filled and there is always space for new learning. The sea, the domain of Tangaroa, has great spiritual significance. The natural balance of the world is modelled in terms of kaitiakitanga (guardianship, care and wise management) by the roles and responsibilities of the Earth's first guardians, Ngā Atua. All iwi can trace their ancestry to the first guardians through whakapapa. In this way the mana of Io-Matua-Kore is connected to Every One universally by whakapapa.

Whakatauki are also passed down through the generations to preserve practical knowledge of natural ocean geography such as currents, tides and hidden reefs necessary for navigation and locating iwi resources.

Ka ū a Te Hana ki te tahuna tuatahi, ka haere, ka kau i te roma tuarua, i Te Waipana
Te Hana reached the first sandbank, passed over it, then swam the second channel, called Waipana.[10]

For Maori, the relationship between people and the environment embraces a spiritual connection as enacted through kaitiakitanga. Kaitiakitanga in the domain of Tangaora is guardianship, care and wise management of the marine resource. This includes noting resource indicators, such as when the 'resource' signals the state of its own mauri, e.g. depletion of stocks or disease or imbalance in the local ecosystem. These measures and observations fall into the realm of both science and local wisdom.

Toitū te marae a Tāne-mahuta, Toitū te marae a Tangaroa, Toitū te tangata.
If the land is well and the sea is well, the people will thrive.

Māori histories and knowledge help develop indicators to trial and evaluate methodologies of management, not only as lore but for all resource management. Mauri embraces the life-supporting capacity of an ecosystem and arohatanga, the connection between the people and the environment. Mauri signifies the spiritual connection of place and emphasises the human relationship in the environment. We lease this land from our grandchildren – mind where you tread.

He wahine, he whenua, I ngaro ai te tangata[11]
Without women and land, humanity is lost

Figure 7. Pam McKinlay and Jesse-James Pickery, *Where is the Line in the Sand?*, 2018, ceramic shells, Installation view: shells with kete, photograph.

To paraphrase this wise whakatauki, putting moana at the heart of the saying:

He moana, I ngaro ai te tangata
Without the ocean we are lost

The oceans are the seas of all life on our planet, supporting life within it and functioning as our food basket and producing the air we breathe. Unlike the creatures of the sea, we can't breathe water. We all live in an open room and we all have a stake in our oceans' future. Traditional knowledge offers the LONG view. Sayings and proverbs from traditional histories embody both practical wisdom for wise conduct in relating to the environment and are also metaphors for life. Our hope is that our artworks can cause a pause, a moment of reflection and effect a change in spirit – it doesn't change what you look at, but the way you look at it.[12]

Kaitiakitanga comes from a spiritual place. In the words of Anne-Marie Jackson, "If the spiritual aspects have been adhered to, then right conduct or behaviour will follow."

Pam McKinlay has a BA and Dip HSc (clothing/design and textile science) from the University of Otago. She works at the Dunedin School of Art and Research Office at Otago Polytechnic. Her art practice is in the sphere of Sci Art.

Jesse-James Pickery seeks resonance in sound, light and earth in a cross-disciplinary practice. He has a BVA from the Dunedin School of Art, majoring in ceramics and is studying for a Masters in Science Communication at University of Otago.

Heramaahina Eketone of Ngāti Maniapoto and Waikato descent is currently teaching Kāwai Raupapa an introduction to the Māori arts certificate at Te Wananga o Aotearoa. She has done art works for/ in collaboration with various community organisations including The University of Otago, The Otago Polyfest and Puaka Matariki.

Photographs: Figures 1-3, 5-7 Pam McKinlay. Figure 4. Geoff Reid

1. Pam McKinlay, *The Bull and the Burning Ocean and Other Modern Tales from the Sea*, Pamplette No. 5, 2018. First performed by Pam McKinlay and Ahi Kaitai-Mullane at the satellite exhibition "Ōku Moana (My Oceans)" as part of the International NZ Science Festival, July 2018, at the Community Gallery, Dunedin.
2. Pam McKinlay, "On Caustics: A Conversation," *Junctures: The Journal of Thematic Dialogue*, 15 (2015), 68. 'Narrative space' is a broad term which is referred to in genres and settings as varied as art, novels and film (storytelling), theatre/drama and virtual reality (roleplaying video games) and real-life environments (such as exhibitions and architecture). Since the time of the Renaissance, narrative space in art has provided a platform for continuous narrative in which several events can be shown in a single setting. However, the story need not be a story in the traditional sense, nor a linear narrative – a narrative space may be a space which is used to convey or explore different themes and meanings, such as a time-scape in a three-dimensional landscape. If, as Kant says, time and space are two of the fundamental categories that structure human experience, then narrative is how we communicate the story or sense of that experience. It is a way of organising our experiences and making meaning.
3. *Evolutionary Biology of Ostracoda: Its Fundamentals and Applications. Developments in Palaeontology and Stratigraphy, Volume 11*, eds N Ikeya, K Ishizaki and T Hanai (Amsterdam, Oxford, Tokyo, New York: Kodansho and Elsevier Science, 1988), 857ff.
4. Elsdon Best, *Maori Religion and Mythology, Being An Account of the Cosmogony, Anthropogeny, Religious Beliefs and Rites, Magic and Folk Lore of the Maori Folk of New Zealand, Part 2*, Dominion Museum Bulletin No. 11 (Wellington: PD Hasselberg, Government Printer, 1982), 253-6.
5. The karanga (call) was traditionally given by women. It weaves a spiritual rope to pull the waka (canoe) of the manuhiri (visitors) onto the marae (sacred meeting place). See New Zealand Trade and Enterprise, Te Taurapa Tūhono, *Te Kete Tikanga Māori – Māori Cultural Kit*, https://www.nzte.govt.nz/tools-and-templates/te-kete-tikanga-māori-māori-cultural-kit.
6. *ART+OCEANS Exhibition Catalogue, 2018*, curated by Pam McKinlay and Jenny Rock (Dunedin, 2018).
7. Gwynne Dyer, "'Armageddon Summer' is Just the Beginning," *Otago Daily Times*, 3 August 2018, 7.
8. Isobel Ewing, "Acres of Shellfish Dead in North Auckland Estuary", *NewsHub*, 14 April 2018, https://www.msn.com/en-nz/news/national/acres-of-shellfish-dead-in-north-auckland-estuary/ar-AAxePld (accessed 8 April 2018). "The shellfish beds are decimated – soon, we believe the shore birds will follow as their food sources decline."
9. A-M Jackson, N Mita and H Hakopa, "Hui-te-ana-nui: Understanding Kaitiakitanga in our Marine Environment," report prepared for *Ngā Moana Whakauka – Sustainable Seas National Science Challenge*, 2017. An output of the National Science Challenge, Sustainable Seas aims to "unlock the innovation potential of Māori knowledge, resources and people to assist New Zealanders to create a better future."
10. HP Raukatauri , "No. 2. Nga Korero O Te Hana, Tamahine O Maru-Patua Raua Ko Hou-Pipito", *Journal of the Polynesian Society*, 20: 2 (1911), 86-93.
11. S Mead and N Grove, *Ngā Pēpeha a Ngā Tīpuna* (Wellington: Victoria University Press, 2007), 134; Annie Mikaere, "Maori Women: Caught in the Contradictions of a Colonised Reality," *Waikato Law Review*, 2 (1994), https://www.waikato.ac.nz/law/research/waikato_law_review/pubs/volume_2_1994/7.
12. Dunedin artist Jenna Packer, from Track Zero panel discussion, Dunedin, 30 July 2018.