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21ST CENTURY PAPAKĀINGA

A blueprint for resilience

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Abstract

Exploitation of geothermal taonga at Ohaki has resulted in irreparable damage to whānau land, tribal land and the marae reservation, including major land subsidence, devastation of wāhi tapu, and groundwater impacts. The whānau, determined to shift from *grievance mode* to *(eco)development mode, are* committed to caring for and regenerating their whenua. This article outlines a whānau journey of re-establishing papakāinga. Their narratives provide insights and key eco-development factors which provide a blueprint for resilient whānau-based living, based on the practice wisdom of their tūpuna. Key factors include: whakapapa, whenua, whanaungatanga; science, technology and innovation; and partnerships and collaboration. These components and the overall model have been *tested* in the context of another whānau grouping whose positive feedback and applicability of the model gave the authors confidence to share it wider. Hopefully encouraging other whānau to consider papakāinga establishment, and more confident in determining their own resilient futures.

Keywords

intergenerational whānau, mātauranga-a-hapū, papakāinga, resilience, sustainability, tikanga

Introduction

Mai i te Waiheke o Huka, whakarāwhiti atu ki te Mānia o Kāingaroa, heke mai nei i te tihi o Maunga Kākaramea, puta atu ki te Pae Maunga o Paeroa. Ko Orākei Korakō te ūkaipō, tae rawa atu ki Pōhaturoa, ki Ātiamuri. Ko te awa o Waikato e pōkarekare nei ki te waenganui.

—Ngāti Tahu pepeha

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From Huka Falls in the south, eastward across the Kāingaroa Plains, descending from the summits of Maungakakaramea, turning westward to the Paeroa Ranges, and extending further west to Orākei Kōrakō, the homeland, and Pōhaturoa to Ātiamuri. The Waikato River glistening throughout.

(Translation by the authors)

This article introduces the reader to a journey undertaken over more than 20 years by Waereti Tait-Wall (Te Arawa, Ngāi Tūhoe) and Tess Kora (Ngāti Tahu, Ngāti Tuwharetoa, Te Āti Haunui a Pāpārangi, Kai Tahu). Affectionately described as "a couple of provincial bunnies" by Victoria University of Wellington social work lecturer Harry Walker (Ngāti Porou, Ngāti Rangi) (personal communication, September 20, 2000), Waereti and Tess are the co-developers of the 21st Century Papakāinga model, a blueprint for the establishment of papakāinga on Te Arawa and Ngāti Tahu lands for small groups of their respective whānau. Waereti's first language is te reo Māori, and Tess's first language is English, reflecting a four-generation suppression of te reo and an 80-year separation of our iwi from our ancestral lands. Both have unequivocable belief in the land to heal its people with the prophetic words of the Ngāi Tūhoe prophet Rua Kenana: *Heal the land, heal the people*. The underlying philosophy of this collaborative action-based research is that through the exploration of old and new tools whānau can restore balance to whenua that has been decimated and re-establish papakāinga living in the 21st century.

As a descendant of Tahumatua, the eponymous ancestor of Ngāti Tahu, and mokopuna of Te Whiwhi Mihinui and Tumeke Wereta, Tess will take the lead in this commentary. She has listened and captured the unheard voices of whānau over the last 20 years: kōrero heard at reunions, tangihanga, weddings, birthdays, land hui, wānanga. She has documented the commitment by a small group of whānau to make and encourage heart connections back to their ancestral lands, and their endeavours to make and maintain whakapapa, whenua and whanaungatanga connections.

Tess is a trustee, beneficiary and kaitiaki of the Tahorakuri A1 Section 30 Ahu Whenua Land Trust. This may not be the usual way to begin an academic article, but we ask the reader to let colonial conventions go. Listen to the kōrero tuku iho, observe the practice wisdom shared, and reflect on what this might mean for yourself, your whānau and wider Aotearoa New Zealand society. As co-author Matua Rereata Makiha has stated:

> We take our whānau way back to that thinking to anchor their whakaaro and their practice kia mau ki ngā kōrero tuku iho, and not get wrapped up in the . . . Pākehā science that gets rolled out now and again.
>
> Collaborating whānau to whānau, papakāinga to papakāinga rather than getting outside consultants to come in. You do it yourself based on your own because, of course, what works up home might not work down your way because they're different environments—different awaawa, different reporepo. Totally different. People think they are all the same—they're not.

The narrative sets out the historical context, the challenges faced by this whānau who are wanting to re-establish papakāinga based on their ancestral whenua, and the hīkoi they have been on. The authors then describe their approach for capturing and sharing the journey of their whānau and its implications for supporting whānau and hapū ways of being and living. This is followed by a reflection and discussion about factors whānau have found critical to their own success thus far, with the hope that other whānau and wider communities who are interested in 21st century papakāinga and who may be investigating their own ways forward may find the kōrero useful.

Narrative

Tess's 1,000 Year Plan

In 1998, the first of my 12 mokopuna was born. I looked into his eyes and overnight my thinking, my plans, my dreams and my aspirations turned to what I call the 1,000 Year Plan. With the birth of each mokopuna after that the desire strengthened to secure their access to a flourishing cultural legacy of resilience handed down from our tūpuna. My 1,000 Year Plan would draw on this legacy to create an Aotearoa where the following are a reality:

- Mana motuhake is established.
- Hapū formation is a constant.
- Te reo Māori is our first language with whānau fluent in te mita o Ngāti Tahu; economic autonomy is underpinned by the principle of reciprocity.
- Papakāinga are flourishing throughout the motu as a taken-for-granted equitable position of strength for participation in wider contemporary New Zealand society and the rest of the world.
- Whakapapa whānau corridors of *fair trade*

are reinstated as a cornerstone of whānau, hapū-based specialisations, trade routes and relationships with values.
- Practices and beliefs handed down from our tūpuna that are integral to our health and well-being are alive and well.
- Proactive whānau-, hapū- and iwi-relevant policies and practices are an integral part of te aohurihuri and are legislated and enacted.
- Our reporepo are restored, and Hine-tū-i-te-repo is abundant with a diversity of life, helping us protect and maintain balance between our lands and waterways, both of which are lush with kai.
- Future generations observe and revisit annually the 1,000 Year Plan that ensures we remain in harmony with the natural rhythms of life and the various realms that are ours. The key task being to heal and maintain harmony with the land.

On the birth of my first mokopuna, Waereti suggested that I was now part of a huge intrigue that she called the *Mokopuna Conspiracy*. With a wisdom developed over several decades of observation and practice, she was very clear the eldest mokopuna should be the repository of a cultural knowledge base, of the oral traditions of our people handed down through the generations. Ngāi Tūhoe elder John Rangihau captures the depth of this cultural practice: "They had no written language and so they passed them by word and by means of oral competence" (Rangihau, 1975, p. 2). The eldest mokopuna were the "black box" so to speak, the "spoilt brat pack" raised by kuia and koroua. I feel privileged to have observed and worked with these mokopuna in Te Arawa, Ngāi Tūhoe, Ngāti Porou and Ngāti Kahungunu.

And it has been my very own Mokopuna Conspiracy with every one of them born that has provided and continues to provide the catalyst to further examine our whenua, learn more about our ties, rekindle our heart connections back to the land, and to probe and challenge mainstream precepts and worldviews that are not ours for solutions that work for us. Whakapapa, whenua, whanaungatanga: I want my mokopuna to know who they are, where they are from, who they belong to. I want them to know their tūrangawaewae, their place to stand i te ao Māori, i te aohurihuri. Like the whakatauki says, they also need to know their papakāinga:

> Tangata akona ki te kāinga, tungia ki te marae, tau ana
>
> If a man is taught at his home, he will stand with confidence on the marae, conducting himself properly, confidently and competently

If our people, our children learn at home on our papakāinga, our marae, they can move confidently in any forum—whānau, hapū, iwi, Māori, mainstream—as national and global citizens. I want to create a world fit for mokopuna, investing the time and effort required to nurture and shape the minds and practices of our rangatahi, our young people, at the same time ensuring papakāinga on our ancestral land are established in harmony with Papatūānuku and the traditional values, practices and beliefs captured in the Ngā Pou Here i te Ao Māori (NPH) framework (Rangihau, 1975), a blueprint for such a future.

The legacy

The stories that are held by our old people within each whānau grouping are replete with examples of initiatives and enterprises undertaken by our forebears. These stories continue to inspire and motivate us to develop our ideas into social, environmental and economic opportunities today, because embedded in the stories is the mātauranga, the practice wisdom, the benchmarks for best practice that assured our survival in an often hostile and challenging environment. These stories are essential as they are a blueprint for resilience passed down from our tūpuna that will inform current and future generations:

> I know this land . . . my *take* in it are *take* tūpuna and noho tūturu , also tūpāpaku. I have worked on it; I am one of the owners. (H. Matatahi in Māori Land Court, 1905, p. 282; italics added).

Ngāti Tahu is a small iwi located in the Waikato Basin surrounded by four larger iwi: Te Arawa, Ngāi Tūhoe, Ngāti Tuwharetoa and Ngāti Raukawa. The eponymous ancestor of Ngāti Tahu is Tahumatua. Some elders recite whakapapa in which he preceded Toroa, the captain of the Mātaatua waka, by two generations; others that he was of Te Arawa descent. Our kaumātua and kuia spoke of oral traditions that claim he arrived in Aotearoa on his own waka, Puaharangi, a bird, a hōkioi, about 1130 AD. He circumnavigated the central North Island and finally settled on the banks of the Waikato River at Orākei Kōrakō. Our people "developed a complex and deep relationship with their surroundings that is beyond words. They were situationally aware, possessing a detailed knowledge of the shape and form of the

ancestral lands they traversed in their daily lives" (Kora et al., 2021, p. 9).

There were smaller settlements near bush margins on Tauhara Maunga and the patches of bush between Oruanui and Tutukau that were a source of birds and other forest resources for Ngāti Tahu. The river provided kōkopu, inanga, kōura and kākahi. When the weather allowed, waka were on the move every day:

> I remember when we went to Ohaki seeing half a dozen waka lined up on the riverside behind the wharekai . . . one-man waka right up to five- and six-man waka….My nannies would jump into their waka and paddle over to the other side of the river to their maara kai. (W. Kinita, personal communication, May 4, 2020)

Places with geothermal areas were favoured and used for warmth, cooking, bathing, and medicinal purposes. There were also rituals associated with various events, and a myriad of pools were an integral part of the Ngāti Tahu way of life. All had mana over various kōkōwai and kūpapapapa grounds, food-gathering māra, fishing and bird-snaring grounds, ngāwhā and waiariki. These were passed down over generations by our ancestors, spreading from Nga Awa o Purua to Pōhaturoa.

> [It is] a very large kāinga, there are two pā … at Orākei Korakō, also houses and cultivations and dead are buried there. (Te W. Matatahi in Māori Land Court, 1886, pp. 75–76)

> The river was a highway of trade; I remember different waka from other iwi stopping in here bringing goods for trading. (N. Williams, personal communication, May 6,2020)

> Great is the pain and grief afflicted us by reason of the Crown…Gone are the burial sites, gone are the settlements, gone are the cultivations. Sir, great is our pain and grief. (K. Heretaunga et al., 1895, as cited in Ngāti Tahu-Ngāti Whaoa Rūnanga, 2019, p. 28)

Te Ohaki was the head settlement of Ngāti Tahu from ancient times and remained off the beaten track for 19th century tourists. Indeed, few outsiders took any interest in this geothermal area until the Ministry of Works began exploration and leased much of the area in 1971. At one time, this kāinga contained 30 inhabited houses—now it seldom has more than three or four, sometimes only one (Vaile, 1939).

The main attraction of Lake Rotokawa was the pārera, a food of great consequence: "My Nanny . . . she remembered the lake covered with the moulted feathers of the ducks (W. Kinita, personal communication, May 4, 2020). Temporary kāinga only were allowed so as not to scare the ducks away. The right to take ducks at Rotokawa was restricted to Ngāti Tahu, and the resource was carefully managed to avoid exploitation.

> These were the great kāinga of Ngāti Tahu at which tikanga were whakahaere'd in respect of both lands and people. When persons died there would be great assemblages of people and affairs would be fully discussed. That was the state of affairs when Ngāti Tahu were ora as a tribe. There was no māngere when attending to such matters whether in respect of riri or any other kind of business. (I. Te Waru in Māori Land Court, 1905, p. 282)

The call came from our koroua

By the time I arrived at Ohaki for the very first time in 1981, our whenua had been decimated by the drilling of wells for extraction of geothermal fluid by the Crown, which began in 1965 (Contact Energy, 2015). Development of the had been expedited by a *Memorandum of Heads of Agreement for Granting of Leases of Land for Ohaaki Power Station* which provided for the lease to the Crown of lands for a period of, 50 years, with two rights of renewal, a maximum of 150 years (Stokes 2003, p. 82). According to Stokes (2003, p. 132), the Crown only agreed to the lease because it "did not want to be seen using the Public Works Act to take nearly 400 hectares of Maori land and finally agreed to a lease." A point that makes even greater sense given the government had already used the Public Works Act to take our former papakāinga and ūkaipō at Orakei Korako for hydropower development. Though we managed to maintain ownership of our whenua at Ohaki, we were forced to compromise on our objection in principle to this development. Our shallow reservoir and numerous geothermal taonga and wahi tapū are now gone due to unsustainable exploitation of our resource. In return for the lease, we receive $1 per year, which even the leasee has acknowledged "the ongoing payment of $1 per year for the term does not provide a sustainable income to address economic development opportunities" (Contact Energy 2013, p. 50). Not only was our rangatiratanga and ability for economic development eroded but more than 20 surface and subsurface

sites and places of cultural significance were rapidly desecrated too.

During the 1860s the Native Land Court systematically fragmented and alienated our rohe. Now, only 4,500 hectares of the whenua our tūpuna had once roamed following seasonal kai and trading goods is in Ngāti Tahu-Ngāti Whaoa ownership (Ngāti Tahu-Ngāti Whaoa Rūnanga, 2019).

In the 1980s, control and management of our whenua and our taonga had not been in the hands of our people for several generations, and there was no longer anyone living on the whenua. So, we gathered to discuss the lease of our land to the Crown. My mum was handed on whakapapa from the koroua, which she maintained over more than 30 years. At the same time, I began my own journey to secure access to a flourishing cultural legacy for current and future generations.

And there was no guide!

The NPH framework espoused by Ngāi Tūhoe kaumātua John Rangihau was one that resonated with me and enabled me to apply a lens that helped make sense of our whānau, and of hapū and tribal histories known to the whānau (Rangihau, 1975). This framework is a blueprint for resilience—a pathway forward for current and future generations. I knew I had to capture those stories, the voices of Ngāti Tahu, if I was to have any chance of reconnecting, rebuilding and rejuvenating papakāinga on our ancestral whenua.

Databasing tools were key to identifying the asset base of whānau: people, lands, fiscal matters. *Let the data speak* became a catch cry when seeking buy-in from owners. In 1999, Tess established a database which has captured that, in 1999 there were 743 of our whānau members located across the country: 50% within the tribal rohe and the rest mostly resident in Auckland, Hastings, Wellington or Christchurch; with 10% of beneficiaries were living in Australia.

Attempts to extract our information held by other institutions—the Māori Land Court, libraries, universities, council property files, archival records, government departments and the private sector—very quickly ensured a change from naively believing this to be a relatively easy task to engaging full-on with the weight of red tape and bureaucracy. It was critical to come to grips with the complexities surrounding the multiple ownership of Māori freehold title land, such as the 2,000-plus beneficial owners of the 55-hectare block of land who see their shares get smaller and smaller with successive generations. The inalienability of whenua meant land had to be productive before financial institutions' policies could change; and legislation for Māori land was cumbersome.

A comprehensive and responsive approach

In 2003 it was important to us that we terminate administration of A130 whenua by the Tribal Lands Trust and instead establish an ahu whenua governance structure, the Tahorakuri A1 Section 30 Ahu Whenua Land Trust (the Trust), to reinvest the whenua into the hands of beneficial owners. This reinvestment was essential because it enabled the Trust to begin taking the steps needed to establish an income-generating eco-papakāinga to reconnect, rebuild and rejuvenate our land, and to develop it as part and parcel of the marae. It just makes sense!

The Trust engaged with specialist expertise across all fields, initially within our own spheres, then moving outwards to include organics, ethical finance, biodiversity, landscape architects, suppliers, Indigenous and eco-architects. Scientists worked alongside us to help assess the land's capability to establish papakāinga; builders and forestry and climate change specialists were approached to support papakāinga initiatives.

In 2013 reconsenting for the operations of the power station was required, and, after 19 years of failed attempts by Ngāti Tahu, agreement was reached with Contact Energy to address, redress and mitigate the colossal and irreversible impacts of the operations of the Ohaki Geothermal Power Station on our land. The power station had been constructed between 1982 and 1989 and was commissioned in 1989. Our first action as the Trust administering our lands was to seek surrender from the lease with Contact Energy those clauses that restricted access to our land; the second action was to collaborate across all sectors. They came to the table. They made a commitment to support the kaupapa, to help seek solutions and resources within their own particular core business and spheres of influence with a vested interest to collaborate towards mutually beneficial outcomes. Ultimately, they made a commitment to turning wasteland into 21st century papakāinga in line with the ancient stories, the practice wisdom handed down from our tūpuna.

Research approach

Describing the methodology for this article is challenging because we are not discussing a simple, discrete research project with neat and tidy findings, outputs and outcomes. This article is

really a narrative about our journey, which began over two decades ago. A journey to research and develop a model to establish income-generating eco-papakāinga and an incentive to bring our whānau home.

On a simple level, the 21st Century Papakāinga model emerges from an absolute belief in the land to heal its people and an underlying philosophy of collaborative action-based research to achieve this. The theory or documenting of this model is a consequence of those actions and applied research at its best. We have used storytelling, within a modern context, to capture and disseminate our narrative. The key methods used to tell this story are outlined in more detail below.

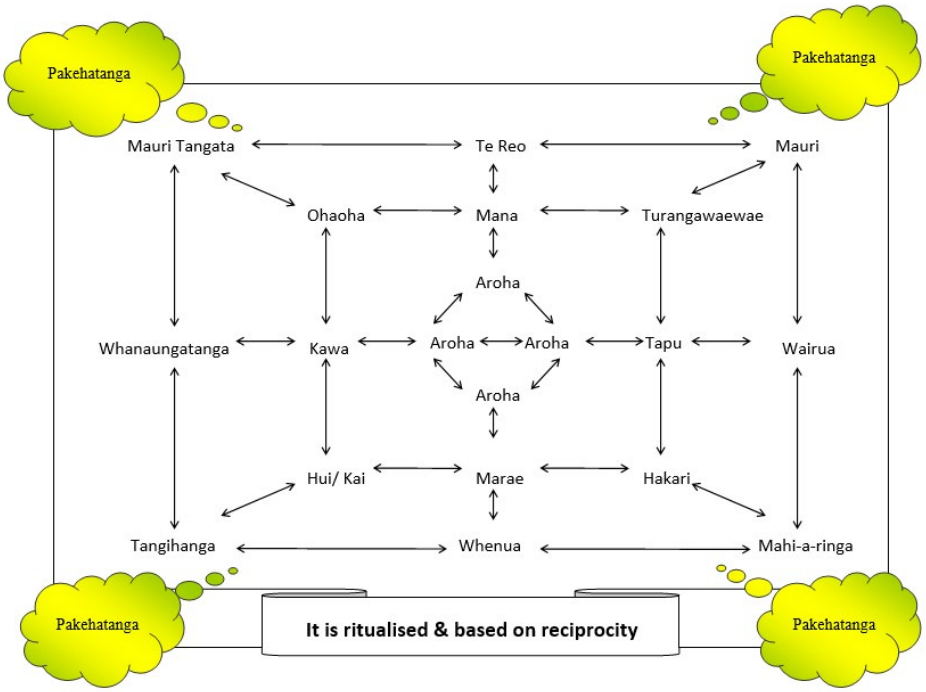
The process involved many iterations over a long period of time based on action, reflection, and further action. This iterative and reflective approach which shifted between practice and theory, aligned with our intention to engage in applied research and a praxis founded on customary practices to inform our contemporary development, based on traditional knowledge and kōrero tuku iho (Freire, 1985).

The main stages were the application of the NPH values-based framework (Rangihau, 1975); wānanga; and the application of oral traditions and contemporary storytelling. Together, these methods comprised a comprehensive and responsive approach.

Ngā Pou Here i te Ao Māori: A values-based framework

The NPH diagrammatic representation shown in Figure 1 was developed by Māori academic and leader of the Ngāi Tūhoe iwi John Rangihau over a period of 25 years of observations and interviews with those still practising tikanga in their daily lives and living by Māori cultural values. The analytical framework was applied to our specific context, through which common cultural aspects of values, practices and beliefs could be examined and used to assess where whānau are along a continuum of cultural knowledge and practices. This

FIGURE 1 Nga pou here i te ao Māori (Pillars of value in the Māori world; name of the values based framework) (adapted from Rangihau, 1975)



Pakehatanga = the ways of Pākehā; Pakehatanga = the ways of Pākehā; Mauri Tangata = life force and wellbeing of people; Te Reo = the language; Mauri = life force and wellbeing; Ohaoha = generosity; Turangawaewae = place of standing; Whanaungatanga = kinship; Kawa = cultural protocols; Aroha = love; Tapu = sacred; Wairua = spirit; Hui = meetings; Kai = food; Marae = courtyard in front of the meetinghouse; Hakari = feast, celebration; Tangihanga = funeral rites; Whenua = land; Mahi-a-ringa = manual labour

was necessary to understand and make sense of our world, as whenever Māori gather together these concepts and principles govern our behaviour towards one another. These core values, practices and beliefs together provide for the recognition, respect and protection of whakapapa, whenua and whanaungatanga, including the importance of mana and manaakitanga, to safeguard the mauri of the land and the people connected to it. Papakāinga is a way of whānau living together underpinned by a blueprint for resilience that is ritualised and based on reciprocity, whereby people care for the land and the land cares for the people.

The narrative shared earlier in this paper attempts to capture the stories of one whānau and where they position themselves along a continuum of a traditional knowledge and practice base. It tells of their journey to relearn, regrow and reconnect to the land. Whakapapa, whenua and whanaungatanga were broad themes used to provide a baseline for capturing, gathering and collating relevant data.

Key to the transmission of a culture is the equipping of current and future generations with the knowledge, values, beliefs and practices that will ensure they stand tall and confident in their identity and connections to each other and their whenua.

Wānanga

As a mechanism for seasonal reporting, discussing, considering, reviewing, reflecting and planning further action by whānau, wānanga enables us to learn about and reflect on past events. In short, wānanga provide a solutions-based focus to what was happening on the land and surrounding environs, and the external influences impacting on practices. This, along with *kanohi ki te kanohi* presence at whānau and iwi events, is how kinship ties are maintained and embers rekindled—ahi kaa roa.

No longer living on the land but gathering together in an attempt to take care of the land, it was from these whānau, hapū and iwi forums that the unheard voices were captured, listened to, and became the basis for the rangahau, the action-based research formulating our strategic direction.

Only a small spark is required to create momentum. The importance of physical meetings and exchanges is summarised by Wayne Ngata (Te Aitanga a Hauiti, Ngāti Ira, Ngāti Porou):

> Kanohi ki te kanohi or face to face communication is a facet of human behaviour. It is indeed a key principle of being and doing as Māori. It also allows one to not only see who or what one is communicating with, but also to hear, feel and smell the relationship. (Ngata, 2017, p. 178)

A one-day, in-person hui in our whare tipuna, Tahu Matua, was held with whānau, strategic partners and allies to share the refined 21st Century Papakāinga model and discuss next steps. The hui was a culmination of many others held by the hapū and provided a means to feed the process back to whānau and project partners, and to signal a move towards the next stage of implementation.

The methodology used draws on cybernetics (Ashby, 1956), a concept first introduced to Waereti and Tess by Father Eric Ryan, a Catholic priest based in Whangarei whose doctoral research on the "whakapapa of the West" provides an interesting look at the criticality of ensuring accuracy of feedback (E. Ryan, personal communication, February 22, 2019). The methodology is reflective, iterative and agile, with Tess and Waereti using a process of circular causality, where the outcomes of actions are taken as inputs for further action—they are prepared to change modes based on feedback from a value base.

Storytelling and oral histories

John Rangihau (1975, p. 2) once wrote, "As you know the Māori language is not a written one. . . . Just imagine, just imagine a whole culture then, built upon the oral tradition." Storytelling and oral histories are an integral part of Indigenous research. These stories are not told solely for the purpose of telling a tale but rather as a means of contributing to a collective story in which every Indigenous person has a place. Russell Bishop (1996, as cited in Smith, 1999, p. 145) argued that "storytelling is a useful and culturally appropriate way of representing the 'diversities of truth' within which the story teller rather than the researcher retains control." Smith (1999, p.145) expands on this:

> For many indigenous writers stories are ways of passing down the beliefs and values of a culture in the hope that the new generations will treasure them and pass the story down further. The story and the storyteller both serve to connect the past with the future, one generation with the other, the land with the people and the people with the story.

Captured voices formed the primary data source for documenting the narrative. Refining the model that has evolved over the past two decades

centred on hapū and whānau-based information. Attempts to extend the secondary database led to the realisation that our information is held elsewhere by institutions not our own. This isolation and disconnection from our mātauranga is in part owed to the deliberate fracturing of our collective way of living. This was illustrated by the 19th century "distinguished" politician, Sir Francis Dillion-Bell (n.d.) when he claimed, "The first plank of public policy must be to stamp out the beastly communism of the Maori!" (as cited in Ministerial Committee for the Department of Social Welfare, 1986, p. 58).

Comprehensive and responsive approach

The Ngāi Tūhoe prophet Rua Kenana (1869–1937) was charged by the wairua world to heal the land. His response to that charge was "Heal the land, heal the people" (M. Stewart, personal communication, November 24, 1999), which became the underlying philosophy of the collaborative action-based research we have undertaken in seeking solutions and transformative change to re-establish papakāinga on whenua decimated by past and current actions of the Crown.

Our journey naturally became one of collaboration, one where we were propelled, by ourselves, into the mainstream world of another knowledge base and power to probe, challenge and ultimately understand and come to grips with how we might best utilise and integrate this knowledge base into our plans for establishing papakāinga and 21st century whānau living on our ancestral lands.

We engaged with experts and specialists across a broad spectrum of the community, beginning within our own ranks of kuia, koroua, whānau across the country, and whanaunga working within various mainstream and public sectors. We then reached out to local government, which have a major role to play in working through the regulatory requirements. Understanding the legislative directives of the Māori Land Court, which at the end of the day is accountable to the Crown, and the complexities created by the fragmentation and alienation of our lands became essential to strengthen the model. The primary strategic goals being considered in matters before the court are (1) whakapapa links to the land; (2) organic direction; (3) accrual of long-term benefits to beneficiaries.

Over time, and as the Trust's momentum has grown, more partners and allies have come on board and more strategic relationships have formed. While acknowledging the significant difficulties involved in hapū and whānau developments on ancestral land, not least of which are the complexities of multiple ownership, there is also a real sense of urgency in gathering the kōrero for the blueprint.

21st Century Papakāinga: A blueprint for resilience

Whānau by whānau, papakāinga by papakāinga.
—Matua Rereata Mākiha

In this section we present a base model, that attempts to bring together concepts, key components and approaches that we have developed over the last two decades and can now be used as a blueprint with which whānau are able to gauge and position themselves along a continuum of thinking, planning and actioning strategies to establish income-generating papakāinga. The journey to establish our papakāinga at Ohaki will be referenced and described, highlighting both the hīkoi and the processes taken to get there.

The model is characterised by three broad and interwoven themes: whakapapa, whenua and whanaungatanga, with the thematic aspects all driven by (1) an integrated "whānau-up approach" ensuring collective social, cultural, environmental and economic needs remain driven by whānau; and (2) an overarching and fundamental approach advocated by John Rangihau that "people development" (1986, p. 7) must necessarily go hand in hand with economic development, which remains relevant today:

It may not be too long though before it is realised by professional groups that intervention vis- à-vis social problems may not be limited solely to social strategies but will need to depend on an amalgam of cultural & economic remedies. Māori People have long held the view that: "People development" is synonymous with "Economic development." If you align that viewpoint with: A people inseparable from their culture, you then have a recipe that takes us out of "welfare" and into "development" (Rangihau, 1986, p. 7).

Mason Durie (1999) is very clear that the least developed Māori resource is not fisheries, nor forestry, but in fact people—and yet their development is likely to realise the highest returns to whānau and Māoridom in general.

Whakapapa, whenua and whanaungatanga

The three broad themes of whakapapa, whenua and whanaungatanga established our pathway back to our maternal lands at Ohaki, from which we have been disconnected for 80 years—a four-generation loss of our reo me ona tikanga, but also one that provided "heart connections back to the land and to each other" as Waereti commented

during a whānau joint project called Ngā Tapuwae O Ngā Tupuna in 2001.

Ironically, we recited whakapapa; we walked the whenua; we laughed, sang and listened to the stories from our pakeke, our kuia and koroua, and whānau we had not yet met; and at the same time we heard of the irreparable damage done to our lands by the Crown. What the wānanga a whānau did provide was the impetus for a small group of us to continue gathering, to stay on the journey, and perhaps answer the primordial call: Ko wai ahau? No hea ahau? My mum was handed down whakapapa from the koroua and carried on the journey at every whānau event, information was collated of shares and interests across both mum's and dad's lands, photos were hoarded, stories documented, and a series of Ko wai ahau? books created for mokopuna on their first and 21st birthdays—a simple gesture to ensure that they will never lose their whakapapa again. From this point on they should know at least three generations back and three generations forward.

Whānau databasing tools and processes were developed and implemented in our attempts to identify the whānau asset base: people, lands and resources. Multiple land shares and interests were profiled. For example, calculations made in 2012 showed that Waereti's whānau holdings across Te Arawa represented a *paper* asset base of $1.5 million. Across my own whānau lands, we had shares and interests in 44 blocks on my dad's side and 37 on my mum's side, most of which were minimal amounts of the total shares originally allocated to that particular land block. Part of that journey was about how we might develop a mechanism to convert a paper asset base to one that could support papakāinga development, create jobs, and generate income and investment in ourselves.

At the same time, whānau demographical snapshots were created: who we are, how many there are of us, our ages and stages, our genders and locations. But more than that, we endeavoured to capture data on fluent reo speakers, skill bases, employment, training and qualifications—primarily to assess the needs of whānau, but also to be able to follow whānau progress. For example, in 1999 there were 743 whānau alive who were descended from our kuia and koroua. About half were located in six different urban areas; the other half remained in our tribal territories. We also looked at the collective *buying power* of the Trust's beneficiaries and calculated that if 350 of those 2,000-plus beneficiaries contributed $5 per week into a papakāinga developmental fund, that would amount to more than $250,000 in three years. By *letting the data speak*, we helped whānau to grasp the importance of returning to the land to establish papakāinga.

This databasing process readily happened on marae; at home on the papakāinga; and at whānau, hapū and iwi events. Each whānau has their respective researchers and counters who know where everybody lived, their birthdays, their ages. These whānau members played a key role for planning purposes.

Mason Durie's (1997) statement on whanaungatanga provided a guide on how whanaungatanga might develop moving forward—how to maintain the reconnections made at our first whānau reunion at Ohaki in 1981. Today whanaungatanga is the active process of by which whānau are empowered—dependent on active leadership, an economic base, effective communication, the creation of new resources, facilities to meet the changing needs of whānau, and legislation compatible with whānau values and aspirations. Even more fundamentally, whanaungatanga incorporates core Māori cultural values. As described in the nationally significant Waitangi Tribunal (2011) report *Ko Aotearoa Tenei*, whanaungatanga is the defining principle of mātauranga Māori—the philosophy that explains the intimate relationships between iwi, hapū, whānau and the natural world.

Heart connections experienced through whānau, whenua and whanaungatanga, and associated with papakāinga, provide a sense of place and belonging. Cultural connections to each other and places of significance elevate those places from simply a house to a *home*, which is important for the resilience of Māori culture and communities.

Sustainable land use management plan

In the mid-2000s, we were fortunate to meet an amazing Te Arawa woman instrumental in us undergoing a major shift in our thinking about Papatūānuku and how she should be looked. We have never looked at our whenua in the same way again—our eyes were opened to the Kyoto Protocol, reducing the carbon footprint of whānau, greenhouse gases, climate change, carbon sinks, carbon offsets, sequestering, carbon economy, vertical farming, and so on.

Future-proofing wealth on our land for the generations to come became a driving force for the development of our 21st century papakāinga. In 2010 the visual conceptual plan to establish our papakāinga was mandated by the Trust as the basis for our compensation settlement negotiations with Contact Energy, and the Trust declared our whenua to be *green*.

Science, technology and innovation

The visual conceptual plan was again at the forefront of our endeavours to procure an informed and clear understanding of the capability of our whenua, particularly after the mismanagement and overexploitation of our geothermal resources by the Crown. The plan includes the historic, contemporary and predicted future state of our whenua. In response, the Trust has taken the last two years to assess the capacity and capability of our whenua to establish our 21st century papakāinga sustainably and safely. This assessment has been underpinned by the NPH framework, and combines mātauranga-a-hapū together with science, technology and innovation. There are multiple layers to consider for a land capability assessment, including cultural, metaphysical, biophysical, policy and planning provisions, particularly as we are working within seriously degraded geothermal environments.

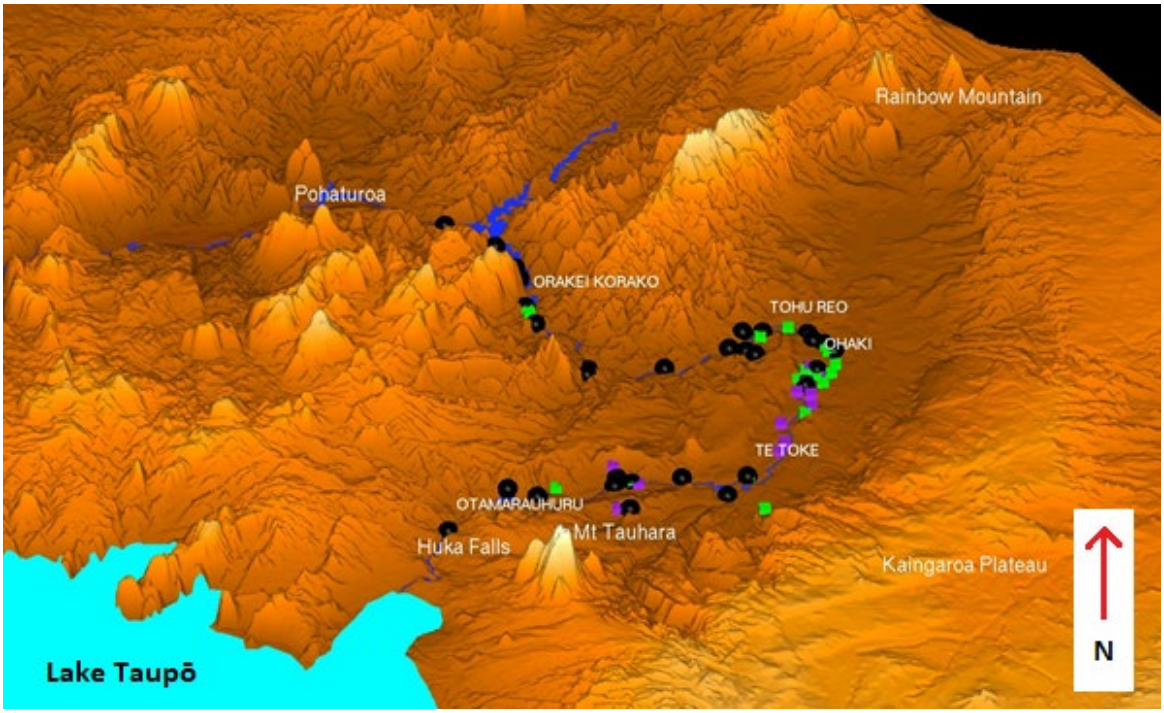
As part of a two-year collaborative effort between the Trust and GNS Science, a New Zealand Crown Research Institute a three dimensional geographic information system (GIS) spatial view of the Waikato Basin and Ngāti Tahu establishments alongside the Waikato River was created (Figure 2). At the end of the two-year project, two small strips of land were identified as needing further assessment before habitation or cultivation could be considered, but for the rest we could action plans accordingly (Kora et al., 2021).

We are also collaborating with the Department of Civil and Environmental Engineering at the University of Auckland on a mapping overlay project called Satellites to Spades. As part of our papakāinga project, they are also supporting us to research the potential for pumice to be utilised as a building material.

Elsewhere too, whānau are strategically utilising technology and innovation to address the challenges surrounding whakapapa, whenua and whanaungatanga initiatives. Technology can help capture the historical and cultural data from the past, present and future—in essence, we are using technology to help compile whānau and papakāinga historical databases, archival records and libraries. As Matua Rereata Makiha observes:

> We are mapping all our papakāinga locations, so had the drones up in some of the test places. And what that's going to do is that the kids are going to use geo-locator technology for each papakāinga

FIGURE 2 Waikato Basin synthesising GNS science and mātauranga a hapū (knowledge specific to a subtribe) showing various establishments of the local tribe— Ngāti Tahu (White et al., 2021)



black dots = settlements; green dots = cultivation areas; purple dots = hunting and gathering areas

> and then we're going to load all the old photos, the stories and also, more importantly the whakapapa of each papakāinga. So, you can whakapapa back from the papakāinga to the current generation. And then you have a look at what skills that exist within that wider whānau connection and most of our whānau global now, go right across to Germany, Holland in some places, USA, Canada, Britain, lots in Australia, some up in Hawai'i. And so, the future is trying to work within a whānau-centred data control layer rather than letting the government have control.

Whānau are also designing and developing computer software and storage technologies that retain data sovereignty and control within Aotearoa, and within whānau. This puts us in a potentially powerful position for ensuring mana motuhake and meaningful outcomes for whānau.

Whakapapa whānau corridors

The corridors are grounded in strategic whakapapa-based alliances—corridors of *fair trade* across the motu, both traditional and contemporary.

In preparation for the rolling out the 21st Century Papakāinga model, a brief assessment was undertaken by overlaying the model onto Waereti's whānau land located on a 15-hectare peri-urban land block in Te Arawa. The NPH framework was used in the first instance with a very quick assessment of who was currently living on the land, the infrastructure in place, and the two distinct governance groups wanting to administer the land. Waereti was very clear that the values, practices and beliefs captured by the NPH framework and observed and practised on their affiliated marae are a key part of whanaungatanga for them and are "surely understood and observed by at least 90% of this whānau indicating strategies and offering solutions for the land and for the people." In this way, the NPH framework provides a template for their whānau to move forward. It is practised on the marae, and whānau carry out tasks required to manaaki manuhiri—a key principle required of their collective leadership approach.

Further to this, a high-level concept plan has recently been drawn up to provide a snapshot of Tess's own 20-year hīkoi to establish papakāinga on this whenua as a means to *let the data speak*. This provided the impetus for her as tuakana to say to her whānau: "I want to be back living on that land by midsummer" And she will: There is a preference that both the whānau Trust and government agencies work together to action their plans to care for the environment and all the rest of the concepts and principles of the NPH framework. Collaboration is required across a broad front of local and central government, private and community sectors, and within Māoridom at large—and this is key to progressing any strategic rollout of 21st century papakāinga.

Conclusion

A journey began over 20 years ago to work through the complexities surrounding our whenua to gain tino rangatiratanga and mana motuhake—self-determination over our land. There were long and unwieldy processes to be worked through and different approaches to be taken, with whānau input being critical to ensure we all remained in the driver's seat—taking ownership and seeking solutions always from a position of strength. The 21st Century Papakāinga model has already been distributed to all parties involved, and whānau are considering implementation strategies that are solution-focused about what should be happening on their land, and this includes collaboration with other whānau, with private and public sector interests, and science, technology and innovation. We are excited to make it work. Whānau plan to celebrate Matariki every year from now on, and to use this time every year to reflect on the state of the whenua and make plans moving forward.

As the Māori economy grows, whānau, hapū and iwi enterprises seek to build relationships with investment partners for mutually beneficial outcomes. This approach has been one the Trust has followed throughout the research and development of the 21st Century Papakāinga model. We have sought expertise first within our own ranks and then identified specialist expertise that can help us ensure social, cultural, environmental and economic outcomes for ourselves and for our whenua.

Though not the usual way to conclude an academic article, we again ask the reader to let go of colonial conventions and listen to the vision and kōrero from one of our Ngāti Tahu whanaunga. We asked Jason Phillips to provide a tohu for our hīkoi more than 10 years ago. He is a passionate Māori artist, tohunga tā moko, tohunga whakairo, tohunga taonga pūoro and tohunga matakite.

Drawn under divine guidance, Hōkioi: Ko Puaharangi (Figure 3) symbolises our whakapapa, whenua, maunga, awa and, most prominently, the kaitiaki of our people. With a menacing pose, Puaharangi is swooping down, talons and wings outstretched, his eyes piercing, focused, all-seeing. Significant for me is the privilege of having such a powerful guardian. His eyes and talons are focused

FIGURE 3 Hōkioi Bird: KO PUAHARANGI (artist, Jason Phillips)

Hōkioi = a mythological bird to Māori, similar to an eagle or hawk;
Ko Puaharangi = name of the mythological bird on which Tahu arrived in Aotearoa according to oral tradition

on his goal, knowing he will catch his prey. May he symbolise the aim and goals of this project—to focus and achieve the mission at hand. His outstretched wings symbolise that we, the project, our lands and people are safely guided, sheltered and protected by the mighty Puaharangi, which can still be seen in the skies as certain cloud formations—or felt when on a hot day a cool wind comes to ease you. Sometimes Puaharangi is still heard in the pitch black night as an echoing screech coming from a distance.

May we, like the hōkioi, also move forward, be focused and achieve the goals we have set. His eyes also represent vision, foresight, seeing things from above—a bird's eye view. How perfect it would be when we hear no negativity. May it be a stance that our people also take as we move forward and focus on the gods. Like those powerful talons, may we also grasp this opportunity, which, I have no doubt, must be good! The eagle in spiritualism represents healing. Significantly, the whole design takes on an arrowhead shape—as we all know, arrows don't go backwards.

Authors' note

Lead author Waereti Tait-Wall (1948–2021) passed away after a very long and difficult fight with cancer, only a few short weeks prior to completion of the final draft of this article. The final editing was accomplished at her bedside. She was elated to be part of the collaboration to get this papakāinga model down and into the public domain as a blueprint for resilient whānau-based living: I ngā tapuwae o ngā tūpuna—in the footsteps of our ancestors. Nō reira, friend, whanaunga, colleague and mentor, piri atu rā koe ki te korowai o Ranginui, hei whetū pīataata ki te tīpare o Matariki.

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We acknowledge first Lucy Kora (Mihinui whānau), who led the charge! Haukapuanui Vercoe, Tess's eldest mokopuna, proofed the different versions of this article to make sure that he could see himself in the overall kōrero and that the "rangatahi voice" captured. He also ensured our written reo remained accurate and consistent. Sonny Te Atakarauria Vercoe, mokopuna no. 3, did the final proof of the written reo for his brother Haukapuanui, while the latter attended to the

arrival of my first mokopuna tuarua. At the same time, Sonny reassured Tess that the "conspiracy" was alive and well when he said on finishing the proof, "Nan, can you copy me in on the Report?" We would also like to thank the wider whānau who whakapapa to the whenua and papakāinga referred to in this article.

Glossary

ahi kaa roa	long-burning fires of occupation, continuous occupation, title to land through occupation
ahu whenua	a common type of land trust designed to promote the use and administration of one or more Māori land blocks or general land owned by Māori on behalf of its owners
aohurihuri	ever-changing world
Aotearoa	New Zealand
aroha	love
awa; awaawa	river
hakari	a feast, celebration
hapū	subtribe
hĪkoi	journey
Hine-tū-i-te-repo	Goddess of swamplands
hōkioi	A mythological bird to Māori, similar to an eagle or hawk
Hōkioi: Ko Puaharangi	title of an artwork by Māori artist, Jason Phillips, commissioned to symbolise the journey of reconnecting our past to our present and future;
hui	meetings
inanga	whitebait; *Galaxias maculatus*
i te ao Māori	in the Māori world
i te ao hurihuri	in the changing world
iwi	tribe
kai	food
Kai Tahu	principal tribe of the South Island extending from the White Bluffs, Mount Māhanga and Kahurangi point in the north to Stewart Island
kāinga	home, homes
kaitiaki	guardians
kākahi	freshwater mussel (*Echyridella menziesii*)
kanohi ki te kanohi	face to face
kaumātua	elderly man
kaupapa	principles and ideas which act as a base or foundation for action
kawa	cultural protocols
kia mau ki ngā kōrero tuku iho	hold fast to the ancestral knowledge handed down
Ko wai ahau?	Who am I?
kōkopu	whitebait, *Galaxias fasciatus*
kōkōwai	red ochre
kōrero	talk
kōrero tuku iho	stories handed down
koroua	elderly man
kōura	freshwater crayfish (*Paranephrops planifrons*)
kuia	elderly women
kūpapapapa	sulphur, brimstone
maara kai	vegetable garden
mahi-a-ringa	manual labour
mana	prestige
mana motuhake	autonomy, self-government, self-determination, independence, sovereignty, authority; mana through self-determination and control over one's own destiny
manaaki manuhiri	show hospitality to guests on the marae
manaakitanga	hospitality, kindness, generosity, support; the process of showing respect, generosity and care for others
māngere	laziness
Māori	Indigenous peoples of New Zealand
māra	garden, cultivation
marae	courtyard, sometimes refers to a wider complex; the open area in front of the meeting house where formal greetings and discussions take place
Mātaatua waka	ancestral canoe of which the Mātaatua People now have territories in Northland and the Bay of Plenty
Matariki	a star cluster significant to Māori
mātauranga	knowledge
mātauranga a hapū	knowledge specific to a subtribe
maunga	mountain
mauri	lifeforce and wellbeing
mauri tangata	life force and wellbeing of people
mokopuna	grandchlld, grandchildren

motu	island, islands
Ngā Pou Here i te Ao Māori	values-based framework; literally, pillars of value in the Maori world
Ngāi Tūhoe	North Island iwi whose territory centres on the Te Urewera region
Ngāti Ira	original occupants of territory south of Hikurangi and Tūpāroa
Ngāti Kahungunu	North Island iwi whose territory stretches from the Mahia Peninsula to Cape Pallisers
Ngāti Porou	North Island iwi based in the East Cape and Gisborne
Ngāti Rangi	people whose contemporary settlement is around Waiouru, Ohakune and the upper Whangānui River in the Central North Island
Ngāti Raukawa	people with traditional bases in the Waikato, Taupo and Manawatu/ Horowhenua regions of New Zealand
Ngāti Tahu	a North Island iwi whose territory extends from Huka to the south across the Kāingaroa Plains
Ngāti Tuwharetoa	descendants of Ngātoro-i-rangi, the priest who navigated the Arawa canoe to New Zealand; the Ngāti Tūwharetoa region extends from Te Awa o te Atua at Matatā across the central plateau of the North Island to the lands around Mount Tongariro and Lake Taupō
ngāwhā	boiling mud pool
No hea ahau?	Where am I from?
ohaoha	generosity
ora	healthy
Pākehā	people of European descent
Pakehatanga	the ways of the Pākehā
pakeke	adults
papakāinga	home, village, communal Māori land
Papatūānuku	Earth mother
pārera	grey duck (*Anas superciliosa superciliosa*)
pepeha	a form of self-introduction incorporating one's ancestry and history
Pōhaturoa	a mountain that holds significance for Ngāti Tahu
Puaharangi	the bird on which Tahu arrived in Aotearoa according to oral tradition
rangahau	research
rangatahi	youth
reo me ona tikanga	Māori language and its cultural practices
reporepo	wetland
riri	to scold, tell off; be angry, annoyed, enraged
rohe	territory, district
take	origins; problem, issue, topic
take tūpuna	ancestral land right
tangihanga	crying, funeral, rites for the dead, obsequies; one of the most important institutions in Māori society, with strong cultural imperatives and protocols
taonga	treasure, possession
tapu	sacred, restricted, prohibited
Te Aitanga a Hauiti	people descended from the eponymous ancestor, Hauiti
Te Arawa	North Island iwi based in the Rotorua region
Te Āti Haunui a Pāpārangi	people of the Whanganui River area also known as Ngāti Hau
te mita o Ngāti Tahu	dialect of Ngāti Tahu, a North Island iwi whose territory extends from Huka to the south across the Kāingaroa Plains
te reo	the language
te reo Māori	the Māori language
tikanga	cutom, lore, protocol
tino rangatiratanga	self-determination, sovereignty, autonomy, self-
tohu	sign, symbol
tohunga matakite	master seer
tohunga tā moko	master tattooist
tohunga taonga pūoro	master musician
tohunga whakairo	master carver
tuakana	elder sister
tūpuna	grandparents, ancestors
tūrangawaewae, turangawaewae	place of standing
wāhi tapu	sacred place, sacred site
waiariki	hot spring, geothermal pool
wairua	spirit
waka	canoe, vehicle
wānanga	extended meeting, workshop
whakaaro	thoughts, thinking

whakapapa	geneology
whānau	family, extended family
whanaunga	relatives
whanaungatanga	relationship, kinship, sense of family connection
whare tipuna	ancestral meeting house
wharekai	dining hall
whenua	land

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