

# Pehiāweri Marae Papakāinga

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## A Model for Community Regeneration in Te Tai Tokerau

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## Abstract

This thesis by design explores the ways in which architecture can facilitate the reconnection of Māori people to their lands, and the resumption of ahi kā (or, a living presence). This project is based on the philosophy that housing solutions for Māori should be integrated with economic and social development initiatives that are co-created and co-designed with the community. Through this research, the papakāinga concept has been explored as a model for the cultural, social, economic and environmental regeneration of communities in Aotearoa New Zealand, and implemented through the design of a papakāinga project located at Pehiāweri Marae in Glenbervie, Whāngarei, Aotearoa New Zealand.

The disproportionate levels of housing deprivation experienced by Māori, when contrasted with the general population, is well-documented. Many Māori families have been effectively locked out of attaining home ownership (and the benefits of inter-generational equity) through conventional means, yet are unable to leverage their ownership interests in Māori land to secure home ownership. In addition to this, culturally-appropriate housing that is sensitive to Māori whānau dynamics and responsive to the relationship Māori have with their whenua is scarce. This research project seeks to address aspects of these complex issues within one specific housing project, and is timely given the current state of severe housing deprivation in Northland, and in the context of Ngāpuhi-nui-tonu moving towards settlement.

The theoretical component of the thesis has sought to bridge kaupapa Māori research and architectural investigation. The research has therefore been heavily process-oriented, with the view to developing and testing alternative design and research methods for working with Māori communities. Applied design/research methods have included recording of oral histories and cultural mapping to inform design strategies that reflect the culture and history of the community, and the use of wānanga and participatory design techniques to meaningfully engage the community in the design process. In this process the role of the architect is reframed as skilled facilitator and interpreter, drawing upon their technical social, and cultural expertise to empower people to take a pivotal role in the design of their own communities through participatory processes.

The design component of this project has culminated in the development of a 10 year masterplan for Pehiāweri Marae, and the design of an 8 unit + communal facilities papakāinga. A number of issues and opportunities have emerged through the development of the masterplan, including the potential reorientation of the wharehui, and siting of future planned projects, including a kohanga reo, playgrounds, and a whare pora. The papakāinga development includes a mix of 1, 2 and 4 bedroom units arranged in clusters of 2-3 dwellings, which have been designed for flexibility and with the ability to be configured as intergenerational whānau homes, or separate dwellings as needs change over time. The papakāinga also includes additional communal facilities that will support interdependence and community resilience whilst retaining a balance between private, shared and communal spaces. I hope that this research will also be of use to other Māori landowners in realising their own housing aspirations, both in Te Tai Tokerau and around the motu.



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## Introduction

Adequate, affordable housing for Māori is an ongoing issue in the context of a dominant Eurocentric design and development paradigm that ignores Māori values, traditions and practices. Colonisation, and the accompanying systemic alienation of Māori people from Māori land, has resulted in the increasing over-representation of Māori in negative socio-economic statistics. In addition to this, efforts by Māori communities to exercise their tino rangatiratanga and develop and exercise their capabilities in the design and planning of their own environments has frequently been frustrated by a colonial culture of planning and design that does not adequately consider the community's values, needs and aspirations.

The project site, Pehiāweri Marae – located in Glenbervie, Whangarei – is one of the most active and well-utilised marae in Northland. The community has stated that their aspirations for the papakāinga project move beyond housing, and include keeping their culture alive, revitalizing te reo Māori, and sparking a strong sense of community. Pehiāweri is an ideal pilot site for a regional regeneration project due to the presence of an active and well-utilised marae, and close proximity to a major regional economic centre. The mana whenua and kaitiaki of Pehiāweri have the opportunity, through their papakāinga development, to support resilient communities and become champions of self-production, independence and interdependence across key areas such as energy, food and transport.

I hope that our papakāinga will operate as an exemplar development, and that our experiences, learning and successes will benefit not just our whānau, but our broader hapū and iwi. I believe papakāinga as a model has extraordinary, yet largely unrealised, potential for the social, cultural, economic and environmental regeneration of Māori communities.

## Ko wai ahau?

*Ko Parihaka te maunga  
Ko Hātea te awa  
Ko Ngātokimatawhaorua te waka  
Ko Ngāpuhi ratau ko Te Arawa ko Whakatōhea ōku iwi  
Ko Ngāti Hau te hapū  
Ko Pehiāweri tōku marae  
Ko Haki Toki Kake tōku koroheke  
Ko Debra Lee Kake tōku māmā  
Ko Berthold Koene nō Holland tōku papa  
Ko Bonnie Jade Kake tāku ingoa  
Ko Jade ahau*

My Māori mother and Dutch father met in Melbourne, Australia in the late 1970's. I was raised on their shared utopian vision for an environmentally responsible and socially sustainable way of life for themselves and their children. In 1982 (prior to my arrival), my parents were involved in the establishment of Billen Cliffs, an intentional community located in the Northern Rivers region of NSW, that united individuals who shared a common interest in rural lifestyles, affordable innovative housing, and land regeneration. I grew up in a house built by

my father, and our family lived in accordance with the principles of permaculture; our household water was harvested from the roof, our power was collected from the sun, and the majority of our food was grown in my mother's garden.

A childhood at Billen Cliffs, where discussions of social and environmental sustainability were common, guided me to the study of architecture. After graduating from high school, I was accepted into a Bachelor of Architectural Design at the University of Queensland, which I completed in 2009. Despite a youth spent in Australia, I maintained an enduring connection with Aotearoa New Zealand, fortified through my close relationship with my koro, Haki Toki Kake, and his elder sister Ruiha Wakefield, the much-loved and respected matriarch of our whānau.

Conversations with grandfather, and my own experiences on home soil, provided a new context for my formal education: the contrasts of poverty, historic policy regarding indigenous peoples, and the intersections of architecture and planning, became personalised and complex, causing me to become increasingly politicised. A growing understanding of historical and ongoing breaches of Te Tiriti o Waitangi, the subsequent systemic alienation of Māori people from Māori land, and the rising tino rangatiratanga (political self-determination) movement, sparked my interest in transferring lessons from my experiences in Australia for the benefit of our people at home in Aotearoa.

After I graduated from University in 2009, I was encouraged by my Auntie Eliza (Auntie Louisa's eldest daughter) to reach out to our whanaunga (extended family member), Rau Hoskins, a respected leader in the field of Māori architecture (who has also co-supervised this thesis). In 2012 I moved to Aotearoa, and with Rau's encouragement in 2013 I enrolled in a Master of Architecture degree at UNITEC Institute of Technology. After working and studying part-time throughout 2013-14, in 2015 I entered my final year of study. Parallel to this, I also joined the Te Pokaitahi o Ngāpuhi Nui Tonu ki Ngāti Hau wānanga, led by kaiako Pierre Lyndon, which helped me to deepen my understanding of our Ngāpuhi tikanga, history and whakapapa.

For my final year project, I have chosen to develop a proposal around the establishment of papakāinga on our family's ūkaipō or ancestral land. There are clear parallels between my upbringing on an eco-community in Australia, and emerging contemporary indigenous housing models. Although most intentional communities founded within the settler-colonial context draw on European models, the concept and underpinning values strongly align with the Māori concept of papakāinga.

In this project, I have sought to draw on my lived experiences, my bicultural heritage and the best aspects of my Western education, whilst remembering that my primary accountability is (and always will be) to our Māori communities. I have treated the theoretical component as a testing ground for the development and extension of indigenous models of architectural practice, with an emphasis on the formulation of appropriate design methodologies for working within Māori communities so that I, and other Māori researchers and designers, may better serve our communities.

Mauri ora.



## Background

Papakāinga has been a long-held aspiration of the whānau of Pehiāweri, with a masterplan indicating future provision for papakāinga drawn up in the early 1980's. Pehiāweri Marae has been investigating the development of papakāinga for the past 2-3 years, with Pehiāweri Marae Chair Les Wakefield attending the papakāinga workshops run by Te Rūnanga-Ā-Iwi-O-Ngāpuhi in 2013.

Papakāinga is also an aspiration held by the descendants of our adjacent whenua, Pehiāweri B1B. Whilst all of the 99 owners of Pehiāweri B1B also belong Pehiāweri Marae, a complicated past has meant that the two blocks (which were originally part of one much larger block, encompassing much of the surrounding area) are on separate titles, governed by different legislation. It is envisioned that the housing at the marae will be wholly owned by the marae and will exist to feed the marae kaupapa, whilst the papakāinga on Pehiāweri B1B is more likely to include a mixture of private homes and homes under trust ownership, with some operating as a home base for extended whānau who live and work away from home.

It has always been my intention through this project to leverage my education requirements as a student of the Master of Architecture (prof) programme to directly benefit my own whānau, whilst also producing research outputs that contribute to the broader body of knowledge around culturally-appropriate indigenous housing. It was fortuitous that our marae was ready to undertake this project at a time when I was preparing to complete my final year thesis.

## Scope

This research project, whilst considering broader implications both nationally and internationally, is firmly focussed on the site and the intended beneficiaries. It would be presumptuous to assume that the solution developed will be suitable for application in other contexts, although I do hope that aspects of my thesis project will also be of some use to Māori and other indigenous communities in realising their own aspirations.

## Research Questions

What is the process of re-establishing ahi kā communities on Māori land? What role can architecture play in facilitating these processes?

The primary research questions are supported by a number of sub-questions:

- a) What are the aspirations of the people of Pehiāweri?
- b) What are the significant aspects of Ngāti Hau mana whenua tikanga, te reo, tohu and local history that should inform the design?
- c) What characterises culturally-appropriate Māori housing? What are the key design features that enable specific tikanga and cultural practice? What are the unique characteristics of appropriate Pehiāweri housing solutions?
- d) Given the justified criticisms of mainstream practice with regards to delivering appropriate housing solutions for Māori, what would an appropriate design methodology for working with Māori communities look like?

- e) How can participatory design techniques meaningfully engage non-designers in the design process, and how is the role of the architect redefined within such processes?
- f) What architectural strategies have been successfully employed in other (local and international) cooperative housing developments?

## Literature Review

The purpose of the literature review is to establish the current state of knowledge in relation to the research questions, and to highlight key messages from previous work that can be built upon in the forthcoming chapters.

With regards to sub-question (a) *What are the aspirations of the people of Pehiāweri?* – a small number of written and visual sources exist. These include the *Pehiāweri Marae and Church Site Vesting Act 1981*,<sup>1</sup> the original building consent drawings for Pehiāweri Marae, and some archival documents and photographs. A difficulty that we have with regards to our marae records is that we have neither a purpose-built archival facility at our marae, nor any system for archiving historical documents. As we are a pre-settlement iwi, we also do not currently have this capacity within our iwi or hapū. This makes it difficult to ensure our taonga are cared for, and as a result much of the historical information pertaining to Pehiāweri is stored in the homes of individual whānau members. Some sources are known to whānau members but unable to be located or retrieved at this present time, although in some cases facsimiles of the original are retrievable. Consequently, we are heavily reliant on oral sources, communicated in the marae environment.

With regards to sub-question (b) *What are the significant aspects of Ngāti hau mana whenua tikanga, te reo, tohu and local history that should inform the design?* – there is limited academic research on Ngāti Hau history and cultural knowledge. Hana Maxwell's "Nga Maumahara: Memory of Loss"<sup>2</sup> is a practice-based thesis by design which investigate Ngāti Hau losses of lands, resources and people between 1865-1920. Maxwell's research demonstrates the importance of the relationship between Ngāti Hau and their ancestral lands, and her investigation of Ngāti Hau tūpuna, sites of significance and histories forms a solid platform on which to build further research on the significant aspects of Ngāti hau tikanga, te reo, tohu and local history that will inform the design.

Additionally, research has been undertaken over the past few years as part of the Treaty of Waitangi Claims process. Ngāti Hau's claims were heard before the tribunal at Akerama Marae on the 16th and 17th of February 2015. Claim numbers included WAI 246, 2060, 1516, 147 and 861. The next stage of the claims process will be heard in February 2016. Primary research into Māori Land Court records and other archival sources will be utilised to complement the academic research undertaken by Hana Maxwell. Oral sources communicated in a marae-based environment extend beyond the information recorded in written sources, and will be used to support, validate or refute the latter.

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<sup>1</sup> *Pehiāweri Māori Church and Marae Site Vesting Act 1981*,  
<http://www.legislation.govt.nz/act/private/1981/0002/latest/DLM110054.html>

<sup>2</sup> Hana Maxwell, "Nga Maumahara: Memory of Loss" (Masters thesis, Auckland University of Technology, 2012),  
<http://aut.researchgateway.ac.nz/bitstream/handle/10292/4469/MaxwellIH.pdf?seque>.

With regards to sub-question (c) *What characterises culturally-appropriate Māori housing? What are the key design features that enable specific tikanga and cultural practice?* – the primary reference is *Ki te hau Kāinga: New Perspectives on Māori Housing Solutions*, a report prepared in 2002 by Rau Hoskins, Rihi Te Nana, Peter Rhodes, Philip Guy and Chris Sage for Housing New Zealand Corporation.<sup>3</sup> The report addresses the lack of culturally appropriate housing for Māori and identifies the need to develop new housing solutions tailored to the specific needs of Māori communities. Papakāinga is identified as a viable and appropriate model for achieving Māori social, cultural, environmental and economic aspirations; the report outlines both general masterplanning principles and specific design issues. Of particular importance are the concepts of tapu and noa, and how these impact the arrangement and adjacency of spaces that are conducive to Māori whānau dynamics and cultural practices.

Complementary to this, the work completed on the Te Aranga Māori urban design principles<sup>4</sup> can be used to inform planning at an urban or neighbourhood scale. The applicability of Te Aranga principles to papakāinga design is primarily centred on the translation of mana whenua cultural narratives into design outcomes in the built environment, through the principle of Tohu and Mahi Toi. Te Aranga also addresses the connection between papakāinga development and kaitiakitanga, through the principles Taiao and Mauri Tū, which seek to restore and remediate our natural environments. Ahi kā is perhaps the most relevant principle, and reflects the desire of mana whenua to regain a living presence on their ūkaipo through the establishment of papakāinga.

*Tū Whare Ora - Building Capacity for Māori Driven Design in Sustainable Settlement Development*,<sup>5</sup> prepared in 2008 by Shaun Awatere, Craig Pauling, Shad Rolleston, Rau Hoskins and Karl Wixon for Nga Pae o te Maramatanga builds on the content in *Ki Te Hau Kainga* and provides more detailed analysis and guidance relating to the development of papakāinga. The report advocates for the integration of mātauranga Māori through collaborative design processes that acknowledge kaupapa Māori and consider the inextricable link between whenua and whānau/hapū/iwi. The report draws on nine Māori cultural values and posits them within an urban development framework. These principles are process-oriented, and have partially informed the later development of the more outcome-oriented Te Aranga principles.

In terms of practical guidance for communities with aspirations for papakāinga, a number of regional toolkits have been developed. A *Papakāinga Development Guide*<sup>6</sup> was prepared in 2008 by Karl Wixon for Te Puni Kōkiri, the Māori Land Court and Hastings District Council.

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<sup>3</sup> Rau Hoskins, Rihi Te Nana, Peter Rhodes, Philip Guy, and Chris Sage, *Ki te Hau Kainga: New Perspectives on Māori Housing Solutions: A Design Guide prepared for Housing New Zealand Corporation* (Wellington, N.Z.: Housing New Zealand Corporation, 2002), <http://www.hnzc.co.nz/our-publications/design-guidelines/ki-te-hau-kainga-new-perspectives-on-maori-housing-solutions/ki-te-hau-kainga-new-perspectives-on-maori-housing-solutions.pdf>. A preliminary (unpublished) update of *Ki te hau Kāinga* has since been undertaken (completed in August 2014), with the view to completing a more comprehensive update in the near future.

<sup>4</sup> Rau Hoskins and Jade Kake, “Te Aranga Principles”, *Auckland Design Manual*, last updated October 30 2013, [http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te\\_aranga\\_principles](http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te_aranga_principles).

<sup>5</sup> Shaun Awatere, Craig Pauling, Shad Rolleston, Rau Hoskins, and Karl Wixon, *Tū Whare Ora – Building Capacity for Māori Driven Design in Sustainable Settlement Development* (Lincoln, N.Z.: Landcare Research Manaaki Whenua, 2008).

<sup>6</sup> Karl Wixon, *Papakāinga Development Guide*, (Hastings, N.Z.: Hastings District Council, 2008).

The guide adopts a step-by-step approach, providing iwi/hapū/whānau with straightforward advice and practical tools and in the process increasing the design and planning capacity of iwi/hapū/whānau. Tauranga Moana<sup>7</sup> and Waikato have also developed their own papakāinga development guides and have some good models and processes developed through the Western Bay of Plenty and Waikato Māori Housing Forums.

Whilst planners have undertaken significant research relating to urban settlements, and a number of papakāinga-specific tools and guides have been produced regionally, there is a small body of work specifically concerned with the development of architectural proposals for papakāinga. The only architecture master's thesis I am aware of that addresses a similar topic is Terry Badham's 2011 "The garden of knowledge: Sustainable contemporary Māori development - creating new frontiers with a clear rear view mirror".<sup>8</sup> Whilst Badham's project explores Māori housing solutions within an urban environment, this project will explore solutions within a rural – specifically, Northland – context.

Fleur Palmer is currently completing a PhD (due for completion in 2016), entitled "Future proofing: building sustainable papakāinga to support Māori aspirations for self-determination". Palmer's work aims to challenge the historical legacy of discriminatory legislation that has alienated Māori people from Māori land, and to consider the multiple conditions that restrict Māori from building sustainable communities. Whilst Palmer's research is focussed on communities in the Far North (Kaitia area), my research is a shorter project focussed on the Whāngarei area, and will complement the work completed by Palmer relating to both papakāinga and tino rangatiratanga. As Palmer's PhD is currently in progress, there have been opportunities to share learnings and methods.

John Reid's 2011 PhD, "Māori Land: A Strategy for Overcoming Constraints on Development"<sup>9</sup> is a long-term action research project with seven groups of Māori land owners with aspirations for holistic papakāinga, encompassing economic, cultural, social and environmental aspirations. Reid's thesis identifies common roadblocks to development, including finance, inappropriate methods employed to build technical knowledge and capability within communities, distrust and suspicion within the community, leadership without mandate, inappropriate support from government agencies, and the persistence of colonial narratives.

In relation to sub-question (d) *Given the justified criticisms of mainstream practice with regards to delivering appropriate housing solutions for Māori, what would an appropriate design methodology for working with Māori communities look like?* – although this question is discussed in 'Ki te hau kāinga' to some extent, there are few sources that explore the intersection between kaupapa Māori research, Participatory Action Research (PAR), and architecture. Whilst Māori architects have been active in working within Māori communities

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<sup>7</sup> SmartGrowth, *Te Keteparaha Mo Nga Papakāinga – Māori Housing Toolkit*,

<http://www.westernbay.govt.nz/our-services/cultural-relations/maori-housing-toolkit/Pages/default.aspx>.

<sup>8</sup> Terry Marie Christopher Badham, "Papakāinga te whau o te matauranga : hei ronaki wa i te ao Māori ki a puawai he oranga hou hei kitenga tangata = The garden of knowledge: suitable contemporary Māori development: creating new frontiers with a clear rear view mirror" (Masters thesis, Unitec Institute of Technology, 2011), <http://unitec.researchbank.ac.nz/handle/10652/1757>.

<sup>9</sup> John Reid, "Māori Land: A Strategy for Overcoming Constraints on Development" (PhD thesis, Lincoln University, 2011).

over the past three decades or more, they represent a limited pool and often occupy part-time academic positions, and thus their publication output is lower than that of full-time academics.

The vast majority of what has been written on the use of participatory action research within the built environment is firmly located within a Western context, and rarely have these methods been successfully deployed and documented within Māori or other indigenous communities. Internationally, there is a significant body of knowledge on Participatory Action Research, some of which posits PAR within a cultural context (including the work of Kurt Lewin, Paulo Freire, and Orlando Fals Borda<sup>10</sup>). Linda Groat and David Wang's *Architectural Research Methods*<sup>11</sup> and Sanoff's *Community Participation Methods in Design and Planning*<sup>12</sup> do explore the use of PAR methods in architectural practice, but are inevitably unable to span the intersection with kaupapa Māori.

There is also growing body of knowledge on kaupapa Māori research methodology, with Linda Smith's *Decolonizing Methodologies*<sup>13</sup> considered the seminal text. Although not architecture-specific, the intersection between kaupapa Māori and PAR is explored in some detail by Reid, who provides a useful discussion on the relationship between Participatory Action Research and culturally-based processes for group learning, such as wānanga, and by Naomi Simmonds who explores wānanga as a kaupapa Māori research method in her 2014 PhD thesis, entitled "Tū te turuturu nō Hine-te-iwaiwa: Mana wahine geographies of birth in Aotearoa New Zealand".<sup>14</sup>

With regards to sub-question (e) *How can participatory design techniques meaningfully engage non-designers in the design process, and how is the role of the architect redefined within such processes?* – participatory design assumes 'users' are the experts of their own domain and should be actively involved in the design process. In *Community Participation Methods*, Sanoff outlines a number of specific participation techniques, which may be suitable for adaptation to a wānanga context. Other sources include *Social Design*<sup>15</sup> by Robert Sommer, and *Consensus Design: Socially Inclusive Processes*<sup>16</sup> by Christopher Day.

Looking beyond Aotearoa, *Cohousing: A Contemporary Approach to Housing Ourselves*<sup>17</sup> is considered to be the definitive text on the cohousing model, and can be used as the starting

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<sup>10</sup> Kurt Lewin, "Action Research and Minority Problems", *Journal of Social Issues* 2, no. 4 (1946): 34–46.

Paulo Freire, "Creating alternative research methods. Learning to do it by doing it", in *Creating Knowledge: A Monopoly*, eds. Budd Hall, Arthur Gillette, and Rajesh Tandon (New Delhi: Society for Participatory Research in Asia, 1982), 29–37.

Orlando Fals Borda, "Participatory (action) research in social theory: Origins and challenges", in *Handbook of Action Research*, eds. Peter Reason and Hilary Bradbury (London: Sage Publications, 2006), 27–37.

<sup>11</sup> Linda Groat and David Wang, *Architectural Research Methods* (New York: Wiley, 2002).

<sup>12</sup> Henry Sanoff, *Community participation methods in design and planning* (New York: Wiley, 2000).

<sup>13</sup> Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples*, 2nd ed. (London and New York: Zed Books, 2012).

<sup>14</sup> Naomi Simmonds, "Tū te turuturu nō Hine-te-iwaiwa: Mana wahine geographies of birth in Aotearoa New Zealand" (PhD thesis, The University of Waikato, 2014).

<sup>15</sup> Robert Sommer, *Social Design: Creating Buildings with People in Mind* (Upper Saddle River, New Jersey: Prentice Hall Trade, 1983).

<sup>16</sup> Christopher Day, *Consensus Design* (New York: Architectural Press, 2003).

<sup>17</sup> Kathryn McCamant, Charles Durrett and Ellen Hertzman, *Cohousing: a Contemporary Approach to Housing Ourselves*, 2nd ed. (Berkeley, California: Ten Speed Press, 1994).

point to respond to sub-question (f) *What architectural strategies have been successfully employed in other (local and international) cooperative housing developments?* Pioneered primarily in Denmark, cohousing seeks to reestablish the sense of belonging and community of traditional villages. The basic kaupapa of the cohousing movement is the desire to be more connected with each other and the land, and as such is closely aligned with Māori values and aspirations. An analysis of the cohousing model, of which there are local examples, will provide valuable insight and transferrable knowledge towards the development of papakāinga.

Other sources include *Creating cohousing: building sustainable communities* by Kathryn McCamant, *The Cohousing Handbook: Building a Place for Community*<sup>18</sup> by Chris Scotthanson and Kelly Scotthanson, and *Cohousing in Britain: A Digger's Review* (Sarah Bunker, Chris Coates and Martin Field, eds.)<sup>19</sup> Between these texts, a comprehensive overview of cohousing in Europe, Britain and North America is provided. Robin Allison, initiator of the Earthsong community in Rānui, Auckland, has also written extensively on the outcome and process of establishing a cohousing community, and provides a good example of the local applicability of the cohousing model.<sup>20</sup>

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<sup>18</sup> Chris Scotthanson and Kelly Scotthanson, *The Cohousing Handbook: Building a Place for Community* (Gabriola Island, Canada: New Society Publishers, 2005).

<sup>19</sup> Sarah Bunker, Chris Coates, and Martin Field, eds., *Cohousing in Britain: A Digger's Review* (London: Diggers & Dreamers Publications, 2011).

<sup>20</sup> Robin Allison, *World Habitat Awards 2008: Final stage submission for Earthsong Eco-Neighbourhood* (Rānui, Auckland, N.Z.: Earthsong Eco-Neighbourhood, 2008), [http://www.earthsong.org.nz/docs/Earthsong\\_Habitat\\_award\\_7e.pdf](http://www.earthsong.org.nz/docs/Earthsong_Habitat_award_7e.pdf).

## Methodology

### Research Methodology

Kaupapa Māori Research methodology is the overarching philosophy guiding this research, and specific architectural research methods and tactics have been selected, interrogated, and further developed through the lens of kaupapa Māori. A kaupapa Māori research methodology “asserts the centrality and legitimacy of te reo Māori, tikanga and mātauranga Māori. Within a Kaupapa Māori paradigm, these Māori ways of knowing, doing and understanding the world are considered valid in their own right”.<sup>21</sup> The guiding kaupapa is grounded in Māori-values, whilst the specific methods/techniques draw on Western knowledge and include conventional spatial analysis, interpretive-historical research, and wānanga-based participatory action research methods.

Beyond kaupapa Māori, the research has been structured and developed in accordance with the tikanga of Pehiāweri Marae and Ngāti Hau. At the heart of the kaupapa is the need for research to be of positive benefit to the Māori research community of interest, and to Māori communities more broadly. As Māori researchers, we have a responsibility to seek to address the socio-economic issues that currently exist, and to “mediate and assist in the alleviation of negative pressures and disadvantages experienced by Māori communities”.<sup>22</sup> Developing, building and managing our own affordable, self-sufficient housing with economic dimensions is a decolonising and mana-restoring act, enabling us to exercise our rangatiratanga, act as kaitiaki for our whenua and manaaki our own people. This project has been undertaken by the hau kāinga of Pehiāweri, with researchers and community members working together ‘pakihiwi ki te pakihiwi’ as collaborators and active participants.

Given that I am conducting research with my own community (and promoting the practice of Māori researchers/designers working within their own communities), ‘insider-researcher’ is an important concept, and one that warrants further discussion. The term insider-researcher is used to describe a situation where the researcher belongs to the research community of interest.<sup>23</sup> According to Linda Tuhiwai Smith, specific problems with the insider model emerge in indigenous research – because there are multiple ways of being an insider or an outsider in indigenous communities, and because insider researchers have to live with the consequences of their actions on a day-to-day basis, as do their whānau and communities. According to Smith, insider researchers need to “be humble because the researcher belongs to the community as a member with a different set of roles and relationships, status and position”. The researcher also needs to have a high degree of self-awareness and be reflective “about the ways in which their insider status affected the rapport and trust they developed with research participants”.<sup>24</sup>

As I approached this research, I was cognisant of the fact that although there is a growing body of knowledge on kaupapa Māori research methodology, and some on architectural

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<sup>21</sup> “Principles of Kaupapa Māori”, *Rangahau: Māori Research*, <http://www.rangahau.co.nz/research-idea/27/>.

<sup>22</sup> Ibid.

<sup>23</sup> Mark Sherry, “Insider/Outsider Status”, in *The Sage Encyclopedia of Qualitative Research Methods*, ed. Lisa M. Given (Thousand Oaks, C.A.: Sage Publications, 2008): 433-434, accessed September 28, 2015, doi: <http://dx.doi.org/10.4135/9781412963909.n216>.

<sup>24</sup> Sherry, “Insider/Outside Status”, 433.

research methods (Linda Groat and David Wang's 2002 *Architectural Research Methods*<sup>25</sup> is the first book-length work explicitly dedicated to architectural research), and alternative architectural practice-based methods (notably Sanoff's *Community participation methods in design and planning*<sup>26</sup>), there is a shortage of serious scholarship that bridges this gap. There is a rising tide of Māori-driven scholarship, and I believe the body of kaupapa Māori architectural research is lagging behind other disciplines such as education, health and the social sciences. This thesis is therefore an attempt, in a small way, to bridge this gap, and to begin to test and document architectural research methods within the context of one kaupapa Māori community-based design project.

By understanding international theory relating to architectural research epistemology, it is possible to situate kaupapa Māori research within a global context. In *Architectural Research Methods*, Groat and Wang outline a number of frameworks for understanding the (necessarily) multiple systems of enquiry within architectural research, tracing historical development and presenting a tripartite model in line with current scholarship.

**Table 1 – Tripartite framework of research paradigms.**<sup>27</sup>

<b>Basic Beliefs</b>	<b>Positivism/ Postpositivism</b>	<b>Interpretive/ Constructivist</b>	<b>Emancipatory</b>
Ontology (nature of reality)	One reality; knowable within probability	Multiple, socially constructed realities	Multiple realities shaped by social, political, cultural, economic, ethnic, gender, and disability values
Epistemology (nature of knowledge; relation between knower and would-be-known)	Objectivity is important; researcher manipulates and observes in dispassionate manner	Interactive link between researcher and participants; values are made explicit; created findings	Interactive link between researcher and participants; knowledge is socially and historically situated

An emancipatory research paradigm emerged during the 1980s and 90s in response to a growing discomfort with dominant research paradigms. As outlined by Guba and Lincoln in the *Handbook of qualitative research*, an emancipatory system of enquiry is holistic, and is concerned with historical situatedness (encompassing an awareness of and responsiveness to political, cultural and historical context), the extent to which the research seeks to erode ignorance and misunderstanding, and the transformative power of the inquiry.<sup>28</sup> An emancipatory research paradigm is also necessarily political – according to Creswell, author of *Research design: qualitative, quantitative, and mixed methods approaches*, emancipatory research “needs to have a political agenda as well as an agenda to reform, change the lives

<sup>25</sup> Linda Groat and David Wang, *Architectural Research Methods* (New York: Wiley, 2002).

<sup>26</sup> Henry Sanoff, *Community participation methods in design and planning* (New York: Wiley, 2000).

<sup>27</sup> Groat and Wang, *Architectural Research Methods*, 32, figure 2.10.

<sup>28</sup> Egon G. Guba and Yvonna S. Lincoln, “Competing paradigms in qualitative research”, in *Handbook of qualitative research*, eds. Norman K. Denzin and Y.S. Lincoln (Thousand Oaks, C.A.: Sage Publications, 1998), 213.



of the participants, the institutions, and the researcher”.<sup>29</sup> Research paradigms can be understood in relation to the overarching research methodology, and a kaupapa Māori methodology – which validates Māori ways of knowing and being and seeks to have a transformative impact – could be considered to fit within this emancipatory paradigm.

### **Defining architectural research**

In Chapter 5 of *Architectural Research Methods*, ‘Design in Relation to Research’, Groat and Wang draw a clear distinction between design *as* research and research *about* (and thus informing) the design process. It is Groat and Wang’s position that research about the design process can help to inform the design process, but that design is not research in and of itself. The primary argument presented is that attempting to subsume the generative creative process (which is non-propositional) under the domain of analytical research (which is inherently propositional) is logically inconsistent and problematic at best. Groat and Wang therefore propose research *about* the design process, which seeks “by well-defined propositional frameworks, to understand more deeply the processes involved in the nonpropositional process of design”.<sup>30</sup> I generally concur with their position regarding design in relation to research, and will attempt to articulate and reflect on this throughout this chapter.

In considering the role of research (and the role of the architect-researcher), Groat and Wang go on to outline a number of different models for episodic research within generative design activity, which provide opportunities to feed research into the design process:<sup>31</sup>

1. **Design as Analysis and Evaluation** – Includes architectural programming (pre-data collection), and post-occupancy evaluation (post-data collection)
2. **Design as Action Research** – Embeds the researcher into the process as an active participant within a concrete situation
3. **Design as Learned Skill: The Generative/Conjecture/Analysis Model** – Considers design as a learned skill that is improved with practice, with elements of research incorporated into the design process
4. **Design in Collaboration** – Shifts away from the model of the architect as sole artist or technician towards architect as facilitator and interpreter in participatory, community-based processes

I believe these models are not mutually exclusive, and that connections can be made between activities to form a complementary suite of methods.

### **Situating architectural research methods within a kaupapa Māori framework**

As a Māori person (specifically, a wahine Māori) working within a Western professional discipline, yet seeking to apply my skills (developed within Western academic institutions and through my professional experiences) to work for and with my own community, I have regarded this thesis as an opportunity to critically interrogate my own assumptions and ideas

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<sup>29</sup> John W. Creswell, *Research design: qualitative, quantitative and mixed method approaches*, Thousand Oaks, C.A.: Sage Publications, 2003, 9-10.

<sup>30</sup> Groat & Wang, *Architectural Research Methods*, 106.

<sup>31</sup> Ibid.

regarding the practice of architecture, and to consider the role of the architect as an agent of positive social change under a Māori kaupapa.

As Māori, we are able to conceive of architecture as whakapapa that links us to our environments, our histories and each other. Our approach and worldview is holistic, emphasising the connectedness of all things, the importance of kaitiakitanga and our responsibility to empower our tamariki and rangatahi. Built interventions can be considered as an indivisible part of our overall cultural landscape, which encompasses our mountains and rivers, our past and present, and constitutes a vital part of our collective identity.

Another aspect of architecture, as considered from a Māori worldview, is the way in which we conceive of our buildings as culturally-patterned spaces. In Te Ao Māori, the sacred (tapu) and the everyday (noa), comprise a set of agreed upon protocols (kawa) that inform human behaviour and influence the creation and use of space, with the degree of flexibility or rigidity dictated by tapu and noa. The way we use space is therefore in accordance with tikanga (correct procedure); events and interactions within our spaces are structured through culturally patterned relationships and the application of appropriate cultural protocols.

This concept is also understood and acknowledged within Western theoretical frameworks. Behaviour setting is a theoretical construct which, applied critically, firmly posits indigenous cultural landscapes – which do not draw distinctions between behavioural, spatial and temporal aspects – within an established theory of architecture. At its essence, behaviour setting theory describes the interdependent relationship between behaving persons and things, time and the immediate environment. According to social scientists Roger Barker and Herbert Wright, behaviour settings are a type of space that is created and experienced when certain aspects of people-environment interactions, such as territoriality, boundaries and ecological structure, intersect.<sup>32</sup>

Anthro-architect Amos Rapoport locates behaviour-setting theory within an architectural context by conceiving of the built environment as tripartite; fixed (buildings), non-fixed (human spatial behaviours) and semi-fixed (furnishings).<sup>33</sup> Expanding on this, in *House, Culture and Form*, Rapoport identifies physical aspects as being secondary to socio-cultural aspects in the creation of architectural space; “the specific characteristics of a culture – the accepted way of doing things, the socially unacceptable ways and the implicit ideals... affect housing and settlement form”.<sup>34</sup> These ways of conceiving of architecture have informed the research design, with research methods developed from a Western worldview critically interrogated and reconsidered in the context of Te Ao Māori.

In seeking to reconcile a Māori way of doing things with architectural modes of practice, a community-based approach has proven both necessary and inevitable. A community-based approach necessarily involves people playing an active role in designing, developing and delivering the projects they want and need for themselves and their communities. In its broadest sense, community-based design responds to a need within a given community

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<sup>32</sup> Paul Memmott and James Davidson “Exploring a cross-cultural theory of architecture”, *Traditional Dwellings and Settlements Review*, 19, no. 2 (2008): 56.

<sup>33</sup> *Ibid.*, 58.

<sup>34</sup> Amos Rapoport, *House Form and Culture* (Englewood Cliffs, N.J.: Prentice-Hall Inc., 1969), 47.

(particularly those whose voices and opinions have not typically been valued, such as indigenous and migrant communities) that is not currently being met through conventional channels.

In community-based processes, a designer or team of designers will work with community members to identify problems and develop solutions to those problems. The designer does not seek to place themselves above the people they are designing with, instead utilising their particular skillset in a way that benefits the group. The role of the architect is reframed as skilled facilitator and interpreter rather than artist or author, drawing upon their technical, social and cultural expertise to empower people to take a pivotal role in the design of their own communities through participatory design processes and consensus decision-making.

Linda Groat describes this shift away from architect-as-artist or architect-as-technician to the alternative position of “architect-as-cultivator”<sup>35</sup>. Groat’s architect-as-cultivator has three elements or characteristics – firstly, an emphasis on collaborative and participatory process; secondly, interdisciplinary design, which draws on the strengths and skills of other disciplines; and thirdly, a social conscience and a “sensitivity for the cultural as the soul of design”.<sup>36</sup> Within the context of international scholarship I think the role of the architect-as-cultivator, as articulated by Groat, elucidates my own position. This position has influenced my choice of research methods and overall approach to the design process.

## Research Methods

This research project has been predicated on the assertion that design should be an embodiment of the culture, history and aspirations of the community, and methods have been developed and adapted to reflect this.

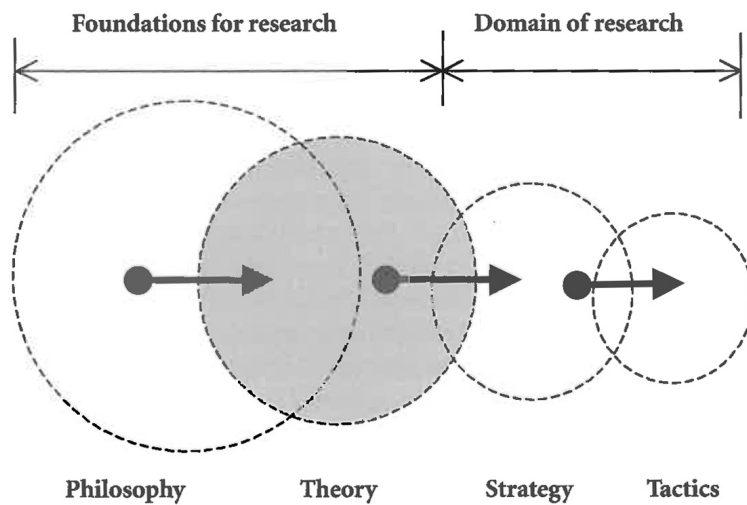
A chart developed by Groat and Wang (figure 1 below) has been used to organize research methods into categories, and to make clear the link between research and architectural design. I have drawn heavily on the methods outlined in *Architectural Research Methods*, and have also used their language to frame ideas I have developed in relation to working with Māori communities within an architectural context.

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<sup>35</sup> Linda Groat, “A conceptual framework for understanding the designer’s role: technician, architect, or cultivator?”, in *Design Professionals and the Built Environment: An Introduction*, eds. Paul Knox and Peter Ozlins (New York: John Wiley & Sons, 2000).

<sup>36</sup> Ibid.

**Figure 1 – Philosophy = Theory = Method chart**<sup>37</sup>



The research methods selected and developed for this project have been organized using the Philosophy, Theory and Method chart above. These are expanded on in the table below.

**Table 2 – Philosophy, Theory, Strategy and Tactics for Pehiāweri Marae Papakāinga project**

Philosophy	Theory	Strategy	Tactics
Māori worldview	Kaupapa Māori + Emancipatory research paradigm	Analytical Research	Site analysis
			Precedent analysis
		Interpretive- Historical Research	Archival research
			Narrative interviews/oral histories
			Cultural mapping
		Qualitative research	Observation
			Wānanga / consensus-building activities

### Analytical research methods

Analytical methods form a core part of the architect's tool kit. Analysis is generally spatial, with diagrammatic overlays prepared in plan at a variety of scales, including building, site, neighbourhood and city. This can also take the form of comparative analysis, drawing out patterns between different buildings/neighbourhoods/cities. As these are generally well-

<sup>37</sup> Groat and Wang, *Architectural Research Methods*, 87, figure 4.7.

understood within architectural practice, the mechanism of these will not be covered in any detail here, with exposition limited to the relationship between analytical methods and research.

### *Site inventory and analysis*

According to LaGro, (author of *Site Analysis: a contextual approach to sustainable land planning and site design*), site inventory, which is “the process of mapping the site’s relevant physical, biological, and cultural attributes”,<sup>38</sup> precedes, and is distinct from, site analysis.

Data gathered through the site inventory process is used to assess the site’s suitability for specific uses and programme objectives. Mapping the site’s opportunities and constraints is a core component of site analysis, and forms the basis for site-responsive design.

### *Precedent analysis*

Precedent analysis is the systemic analysis of plans that enables comparison between precedents. The primary goal of precedent analysis is to learn from earlier examples through explicit analysis.

The use of precedent analysis as a research tactic fits within the Generative/Conjecture/Analysis Model of architectural research, with analysis feeding into the design process through what Donald Schön refers to as ‘reflective practice’ – the practice of deliberate reflection on action so as to engage in continuous learning.<sup>39</sup>

Architects, such as Rudolf Perold, Geoffrey Baker, Paul Righini and Bernard Leupen, have defended the validity of reflective practice as design research, through the application of research – derived from analytical methods – in reflective practice.<sup>40</sup>

Precedent analysis has been selected as an appropriate method to respond to sub-question (f) *What architectural strategies have been successfully employed in other (local and international) cooperative housing developments?* This technique was considered a useful means to draw comparisons between a vast range of projects, to articulate relationships between spaces, and to identify reoccurring patterns.

Analysis has been undertaken in plan, at a site scale, using diagrammatic overlays. Analytical diagrams selected include:

- Figure-ground (to articulate the relationship between built and unbuilt space)

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<sup>38</sup> James LaGro, *Site Analysis: a contextual approach to sustainable land planning and site design*, 2nd ed. (Hoboken, N.J.: John Wiley & Sons, 2008), 20.

<sup>39</sup> Donald A. Schön, *The reflective practitioner — How professionals think in action* (Aldershot, Hants.: Arena, 1995).

<sup>40</sup> Rudolf Perold, “Design (re)thinking: reflective practice as design research” (presentation, Design, Development and Research Conference at Cape Peninsula University of Technology, Cape Town 26 to 27 September 2011), [https://www.academia.edu/931961/Design\\_re\\_thinking\\_reflective\\_practice\\_as\\_design\\_research](https://www.academia.edu/931961/Design_re_thinking_reflective_practice_as_design_research). Geoffrey Baker, *Design strategies in architecture: an approach to the analysis of form*, 2nd ed. (London: Routledge, 2006). Paul Righini, *Thinking architecturally: an introduction to the creation of form and place*, revised ed. (Cape Town: University of Cape Town Press, 2009). Bernard Leupen, Christopher Grafe, Nicola Körnig, Marc Lampe, and Peter de Zeeuw, *Design and Analysis* (New York: Van Nostrand Reinhold, 1997).

- Circulation (to articulate the hierarchy of movement patterns through space)
- Private and shared space (to articulate the relationship between private and shared spaces)
- Green space (to identify vegetation patterns)
- Parking (to identify car parking patterns)

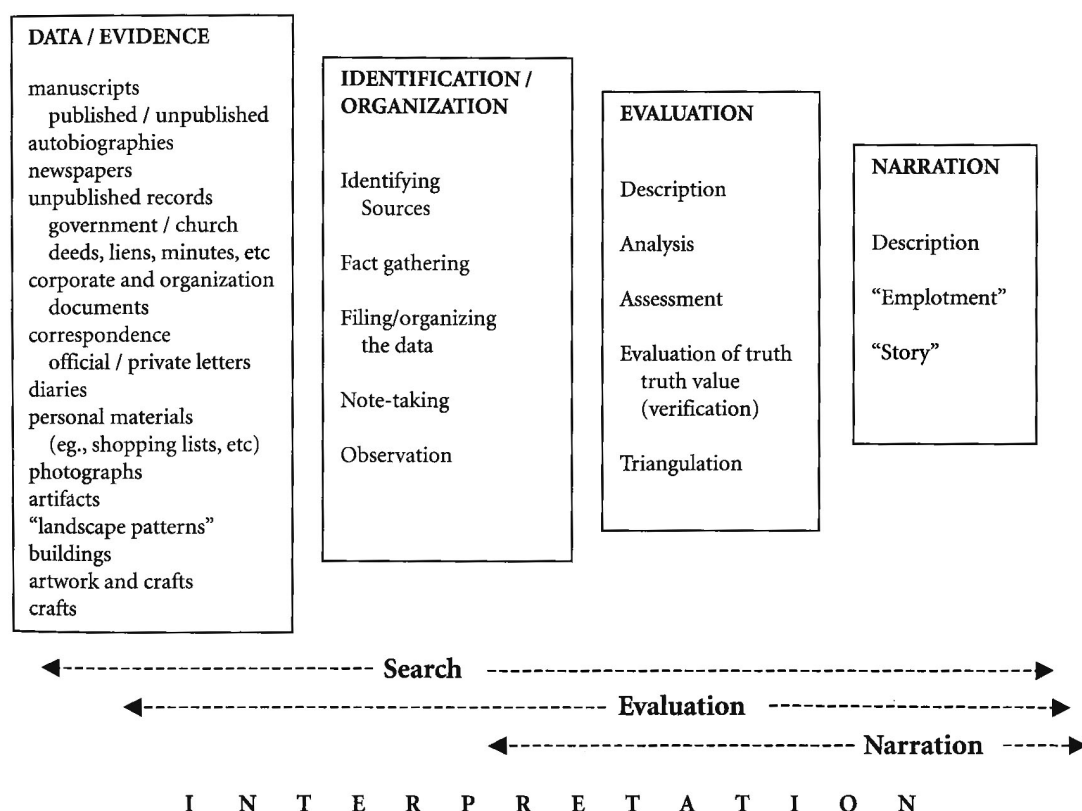
Symbology and graphic conventions have been kept consistent across all precedents analysed for clarity and ease of comparison.

The results of the analysis have then been summarised and interpreted to inform a set of design strategies, applicable to Pehiāweri B1B papakāinga.

### Interpretive-historical research methods

Interpretive-historical research involves gathering historical information, and *interpreting* this information to form a coherent narrative. As with all historical inquiry, a degree of interpretation is required, with critical evaluation of historical sources informing the development of a believable and defensible narrative.

**Figure 2 – Chart of interpretive research** <sup>41</sup>



### Archival research

Archival research involves seeking out and extracting evidence from original archival records.

<sup>41</sup> Groat and Wang, *Architectural Research Methods*, 137, figure 6.2.

Archival research was considered to be an appropriate method of inquiry in response to sub-question (b) *What are the significant aspects of Ngāti hau mana whenua tikanga, te reo, tohu and local history that should inform the design?* Archival research is a practical means of recording site-specific history from the past 150 years (dating from 1865, when the land was placed under legal title).

Archival research sources utilised include the Whāngarei Māori Land Court Minute books (with records dating back to the Native Land Act of 1862) and the Northland Room at the Whāngarei City Library (containing local historical information not available elsewhere). Primary archival sources are complemented by secondary sources, in particular research undertaken by Ngāti Hau researcher Hana Maxwell.

#### *Narrative interviews / oral histories*

Interviews in interpretive-historical research are used to target memories, rather than reactions to present-day situations (which may be the focus of qualitative methods). Interviewing kaumātua and kuia can also be a way to access collective cultural histories, passed down through oral traditions. By the time the interviewer organises the interview material, it is necessarily an interpretation of an interpretation. It is in this context that the role of insider-researcher is pertinent, with the researcher having sufficient cultural and contextual knowledge to interpret the kōrero given.

Oral history has been selected as a method to respond to sub-question (b), as above, validating mātauranga Māori and complementing the archival information recorded over the past 150 years. As much of the research informing this project concerns events in living memory (in the past 50 years), I have been able to verify (to a greater or lesser degree) most of the recollective evidence gathered through interviews and oral history recordings. Collective cultural information that is passed on intergenerationally, such as whakapapa and cultural narratives, have their own integrity and in-built methods of fact-checking and ensuring reliability – these have been interpreted but not heavily scrutinised for the purposes of this project.

One of our kaumātua and one of our kuia were identified through discussion with community members for interview, as they both have extensive cultural knowledge and memories of our marae and the surrounding area. I have allowed the process of identifying individuals to ‘interview’ to emerge naturally, through guidance from kaumātua, kuia and marae kaimahi, and through my own experiences on the marae. Wānanga settings, where individuals are free to volunteer information in a culturally-safe environment, have been favoured over one-on-one interviews.

#### *Cultural mapping*

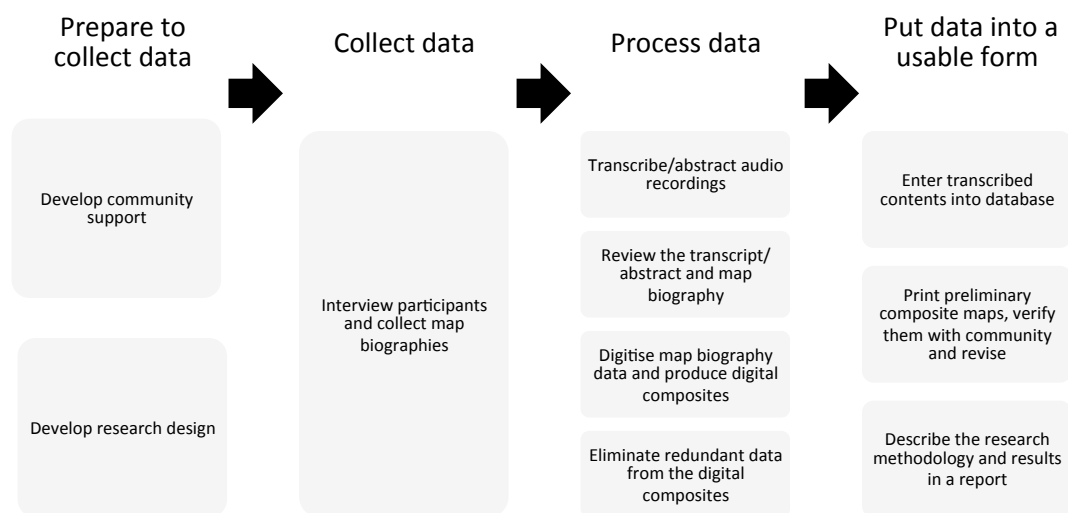
Cultural mapping is the process of spatially mapping both intangible and tangible cultural information.

In recent years, cultural mapping has been perceived as a valuable tool for environmental monitoring and conservation, treaty claims processes, and managing relationships between government authorities and tangata whenua.

Cultural mapping has been selected as a further method for responding to sub-question (b) as a means to translate cultural values and narratives (collected and interpreted through the narrative interview/oral history process) into design outcomes. Sites of significance are mapped spatially and analysed through the site analysis phase. The locations of sites of significance are then used to inform the siting of new buildings and landscape elements through the masterplan, and detailed kōrero/cultural narratives are used to inform design strategies at a building level.

A summary of the cultural mapping method I have developed for this project is outlined below. This method has primarily been developed with reference to Canadian resource *Chief Kerry's Moose*<sup>42</sup> and local examples, such as Harmsworth's method and framework for working with indigenous values and GIS<sup>43</sup>, and a plan developed by Whāngarei hapū for protecting sites and areas of significance<sup>44</sup>.

**Figure 3 – Major Tasks of the Mapping Project**



Protocols need to be developed to handle the protection and control of map data. These include determining how to control the release of data, how much data to release, to whom, when, and at what level of detail.

A potentially suitable model, based on the Ngāti Hine Papa Pounamu model, is as follows:

1. Level 1 = Full access

Data at this level is unrestricted and suitable for public access. This data could be

<sup>42</sup> Terry N. Tobias, *Chief Kerry's Moose: A Guidebook to Land Use and Occupancy Mapping, Research Design and Data Collection* (Union of BC Indian Chiefs and Ecotrust Canada, 2000), <http://archive.ecotrust.org/publications/chiefkerrysmoose.html>

<sup>43</sup> Harmsworth G 1998. Indigenous values and GIS : a method and a framework. Indigenous knowledge and development monitor 6(3): 3-7.

<sup>44</sup> Tui Shortland and Lou Ann Ballantyne, *The Research Methodology & Plan for Protecting Sites and Areas of Significance: Iwi/hapū Input to Whāngarei District Council Sites of Significance* (Whāngarei, N.Z.: Repo Consultancy Ltd., 2010).



held within the Council GIS system, where Council staff and members of the public could access it, or printed on publically accessible maps.

2. Level 2 = Limited access

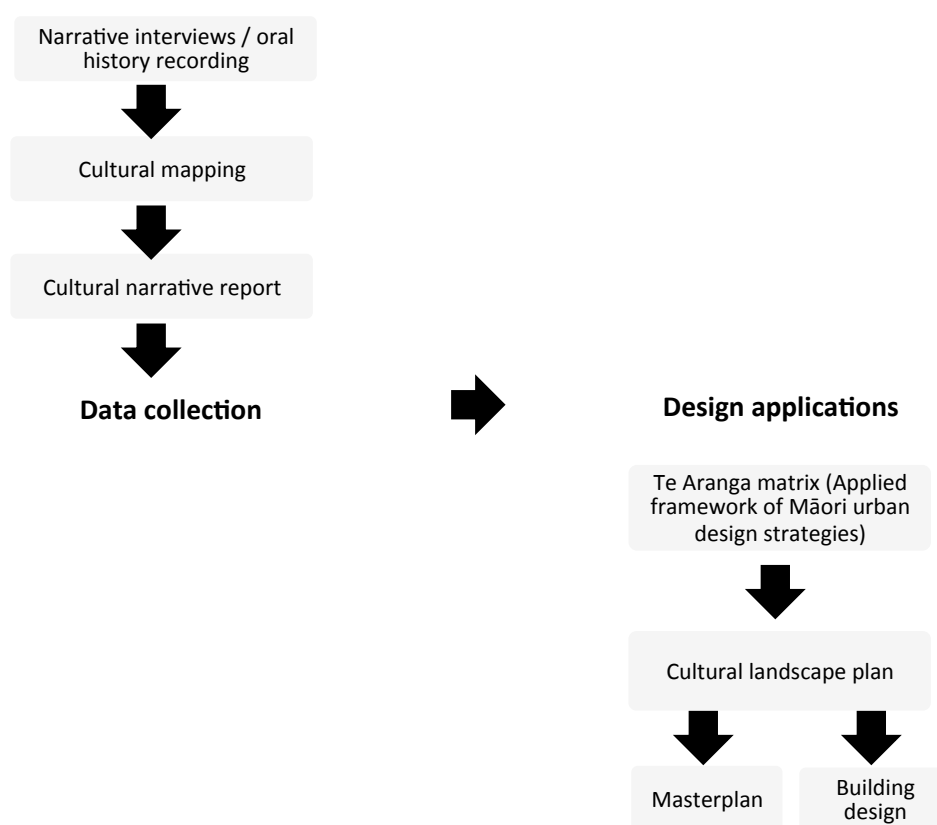
Data at this level is sensitive and has some limitations. The local council and/or other external groups receive only maps showing cultural sites, whilst whānau, hapū or iwi retain control of the database, which contains detailed cultural and historical kōrero about each site.

3. Level 3 = Restricted access

Data at this level is highly sensitive and held by whānau, hapū or iwi. Data is released on a case-by-case basis, and only after careful consideration and discussion and ratification by kaumātua/kuia.

A possible framework for translating cultural narratives into design outcomes is outlined below.

**Figure 4 – A framework for translating cultural narratives into design applications**



The cultural narrative report (figure 4) is a written document, primarily containing detailed kōrero extracted from the map database, but which may also include the following:

- Transcriptions/abstracts of oral histories
- Description of methodology

- Historical/archival data – Māori land court records, newspaper archives, other written sources.

The next step in the process is to translate the cultural narratives into a set of place-based, site-specific applications. Mana whenua of Tāmaki Makaurau have begun to develop Te Aranga matrices that utilise the Te Aranga principles<sup>45</sup> and translate them into place-based cultural landscape strategies, which are used to guide urban development projects in their rohe. I propose that the Cultural Narrative Report can be used as the basis for developing a set of text-based, site-specific urban design strategies, articulated through a Te Aranga matrix.

The Cultural Landscape plan is developed through spatial application of the strategies developed through the matrix. The cultural landscape layer is then overlaid with the spatial analysis and precedent analysis to develop the masterplan. Strategies developed through the cultural landscape plan are largely interpretive (in that specific meanings/implications for built forms are drawn from cultural narratives) and can be applied at both an urban and architectural level.

### **Qualitative research methods**

Qualitative research consists of first-hand encounters within a specific context, and relies on interpretation and analysis through words. Data collection methods include field notes, audio/video recording, and abstracts/transcripts. Denzin and Lincoln, authors of *Qualitative Research Methods* (and various other texts on research method), provide a generic definition of qualitative research:

Qualitative research is multimethod in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of empirical materials..<sup>46</sup>

There is some overlap with interpretive-historical methods, with a shared emphasis on holism and some shared methods of data collection. However, the distinction can be drawn in terms of temporality – interpretive-historical methods are focused on the past, whereas qualitative methods focus on contemporary phenomena.

### *Observation*

Observation is used to collect data on naturally occurring behaviours in their usual contexts. The two types of observation are nonparticipant observation (which involves the researcher as a nonparticipant), and participant observation (whereby the researcher is an active participant).

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<sup>45</sup> The Te Aranga Māori Design Principles are a set of outcome-based principles founded on core Māori cultural values and designed to provide practical guidance for enhancing outcomes for the design environment. The Principles have arisen from a widely held Māori desire to enhance mana whenua presence, visibility and participation in the design of the physical environment fulfilled, while also complementing and improving existing urban planning practices. Hoskins and Kake, “Te Aranga Principles”, *Auckland Design Manual*.

<sup>46</sup> Norman Denzin and Yvonna Lincoln, *Strategies for Qualitative Inquiry* (Thousand Oaks, California.: Sage Publications, 1998), 3.

Observation has been considered alongside wānanga/consensus-building activities as a means to respond to sub-question (a) *What are the aspirations of the people of Pehiāweri?* Observation has been selected as a useful method for collecting data incidentally and outside of the more structured wānanga environment.

Given my position as insider-researcher, nonparticipant observation would be inappropriate (and likely impossible). Data collection methods include field notes, audio/video recording, and abstracts/transcripts.

#### *Wānanga / consensus-building activities*

Participatory action research (PAR) is a qualitative research method that emerged in the 1980s as part of the new emancipatory research paradigm. PAR breaks down barriers between the researcher and the researched, emphasising community participation, and developing both researcher and community capacity. PAR also has the added dimension of social impact – “the long-term goal of participatory research is to empower people to effect social change”<sup>47</sup>. The use of wānanga, which is a uniquely Māori format for the transfer and creation of knowledge, has been considered alongside Western participatory design methods in an attempt to posit PAR within kaupapa Māori epistemology,

Despite a growing body of kaupapa Māori research, there is little methodological guidance pertaining to the use of wānanga as a research method. However, Naomi Simmonds in her 2014 PhD thesis, entitled “Tū te turuturu nō Hine-te-iwaiwa: Mana wahine geographies of birth in Aotearoa New Zealand”, argues that “wānanga... as a kaupapa Māori [method]... is valuable in its own right and offers important insights into the construction and production of knowledge and to understandings of subjectivity, space and place”.<sup>48</sup> John Reid also discusses wānanga in his thesis “Māori Land: A Strategy for Overcoming Constraints on Development”. Reid articulates an alternative intercultural framework for indigenous development, including the use of “wānanga – to create environments for collaborative and critical learning based on story-telling, mentoring and experiential learning”.<sup>49</sup>

I have selected participatory action research through wānanga as a suitable method of inquiry for responding to sub-question (a) *what are the aspirations of the people of Pehiāweri?* (d) *Given the justified criticisms of mainstream practice with regards to delivering appropriate housing solutions for Māori, what would an appropriate design methodology for working with Māori communities look like?* And (e) *How can participatory design techniques meaningfully engage non-designers in the design process, and how is the role of the architect redefined within such processes?*

Wānanga has been nominated as a suitable environment for facilitating consensus decision-making processes, and for enabling a community to articulate their own values and aspirations. I propose that wānanga could be framed as a ‘group tactic’ within a participatory action research method, adhering to the principles of PAR and structured by tikanga in a marae-based environment. Furthermore, I propose that wānanga as a method for

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<sup>47</sup> Sanoff, *Community Participation Methods*, 63.

<sup>48</sup> Simmonds, “Tū te turuturu nō Hine-te-iwaiwa”, 88.

<sup>49</sup> Reid, “Māori Land Development”, 136.

architectural research could draw on Western participatory and consensus design methods, whilst adhering to the protocols established through tikanga.

Participatory design assumes ‘users’ are the experts of their own domain and should be actively involved in the design process. Participatory design refers not only to tools and techniques, but also their successful deployment at a particular time with a particular group of people. Whilst the majority of participatory and consensus design theory originates in North America or Europe, decision-making by consensus is well-understood within Te Ao Māori, with decisions made through clearly identified roles and commonly understood protocols. According to Timoti Gallagher, decision-making by consensus was a key facet of pre-European Māori society:

In regards to pre-1840 Māori decision making, consensus decision-making was preferred to majority rule. Debate was encouraged in formal situations (such as rūnanga or marae), and proper protocols (kawa) was followed. If one was to break kawa, then he or she would be scolded with verbal attacks and would lose mana as a result. Rūnanga meetings were open and non-exclusive and decisions were based on appeasement to the community, which allowed the rangatira to maintain support (and therefore mana) from the community..<sup>50</sup>

In the wharehui, the formal setting where we have maintained our tikanga and reo to the greatest degree, consensus is still largely the way decisions are made. Given that consensus is a core tenet of decision-making within Māori society, I believe there is significant potential to develop consensus design methods that take the best of Western thinking and reframe and reinterpret it within a kaupapa Māori framework.

In *Community Participation Methods in Design and Planning*, Sanoff outlines a number of specific participation techniques. For this research project, a number of techniques have been trialed and incorporated into a wānanga environment, including: the use of awareness tactics to build community awareness and socialise ideas, and the use of site planning kits (models) in facilitated workshops to explore ideas and build community consensus.

It has been suggested that a group of 8-12 is an appropriate sample size for participatory design workshops, as this represents manageable numbers for the purposes of facilitation. However, the kaupapa of the marae is an inclusive one; numbers are not controlled, and wānanga are open to whomever wishes to attend. Overall, approximately 30 people were involved in the wānanga process, across 6 hui, over the period of April-August 2015. Additionally, a further 10-15 were involved in an earlier hui, held in March 2013, in relation to owner aspirations for Pehiāweri B1B.

## Ethics

Māori ethics are inherent in Kaupapa Māori methodology based on culturally appropriate engagement and research specifically targeted to Māori. This is a Māori designed, led and driven project intended to enhance Māori well-being, and is in accordance with the principles of Te Tiriti o Waitangi, in particular the principle of tino rangatiratanga under Article 2. We

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<sup>50</sup> Timoti Gallagher, “Tikanga Māori Pre-1840”, *Te Kāhui Kura Māori* 0, no. 1 (2008), <http://nzetc.victoria.ac.nz/tm/scholarly/tei-Bid001Kahu-t1-g1-t1.html>.

have undertaken this project as Ngāti Hau ki Whāngarei hapū, and more specifically the people of Pehiāweri Marae.

The majority of participants (and the researcher) all belong to Pehiāweri Marae and the Ngāti Hau hapū of Ngāpuhi. Due to our family linkages it is not unlikely that there will be close kinship connections, however in Te Ao Māori this is usual and is not seen as presenting problems; it tends to facilitate this type of research creating trust and accountability understandings. I have used pseudonyms where requested to do so by interviewees, or alternatively have gained approval from interviewees to formally acknowledge them as a source of information. However, for the most part personal identification has not been necessary, as the purpose of collecting kōrero has been to inform site analysis and design development.

I acknowledge that some issues could potentially arise due to my position as insider-researcher. The role of insider tends to facilitate trust and access to information, but carries the risk of the researcher gaining access to sensitive information that community members do not want disclosed publically. Additionally, this holds significant personal risk for the researcher because “it can unsettle beliefs, values, relationships and the knowledge of difference histories”.<sup>51</sup> For this reason, “insider researchers need to build particular sorts of research-based support systems and relationships with their communities... defining clear research goals and ‘lines of relating’ which are specific to the project and somewhat different from their own family networks”.<sup>52</sup>

Support and guidance has been sought from my supervisors, leaders within our own hapū and marae, and our kaumātua/kuia, to ensure cultural and social sensitivity. My secondary supervisor Rau Hoskins is also from Ngāti Hau hapū and has provided both academic and specific cultural support. I have sought advice from the marae as to what and how information is to be dispersed to wider audiences, including investigating different levels of knowledge sharing. I have taken a deliberately cautious approach, with any sensitive (or potentially sensitive) information left out of this document. Apart from my personal whakapapa, whakapapa information has been disclosed only to the level already published in other sources (specifically, Hana Maxwell’s brief of evidence as part of Ngāti Hau’s Waitangi Tribunal claims, and her 2011 thesis “Nga Maumahara”<sup>53</sup>).

Prior to the commencement of the research project, organisational consent was formally granted by the marae and lodged with the Unitec Research Ethics Committee (UREC). The people of the marae regarded this as somewhat unnecessary, but they were happy to cooperate for the purposes of meeting the institutional requirements for my studies. Whilst the process of attaining insitutional ethics approval may at times seem strange and counter-intuitive to Māori researchers, I believe this is an opportunity to frame ethics in our terms, and to hold to the validity of our mātaraunga and ways of doing things. Ultimately, we know that we will be held accountable to, and by, our communities.

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<sup>51</sup> Smith, *Decolonizing Methodologies*, 139.

<sup>52</sup> Smith, *Decolonizing Methodologies*, 137.

<sup>53</sup> Hana Maxwell, *Presentation Summary of the Brief of Evidence of Hana Maxwell*, (brief of evidence for the Waitangi Tribunal, WAI 1040, WAI 246, 13 February 2015).  
Hana Maxwell, *Nga Maumahara*.

## Historical & Political Context

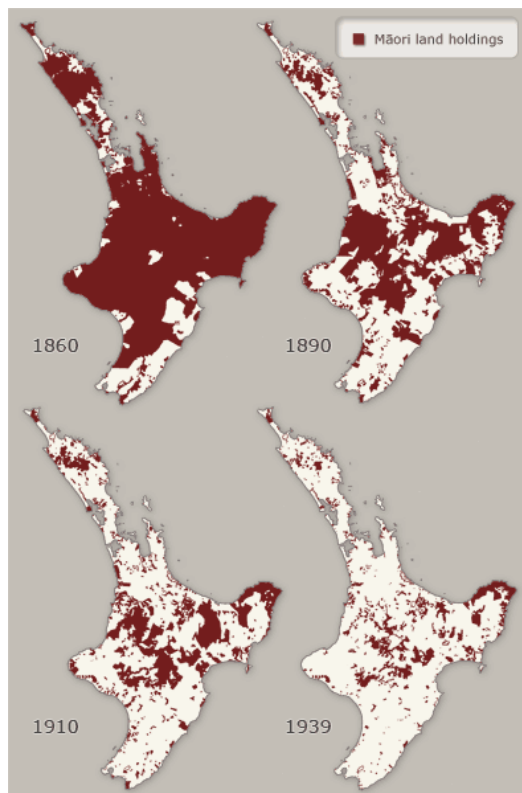
### Issues

#### Impact of Colonisation

Colonisation, and the accompanying alienation of Māori people from Māori land, has resulted in the increasing over-representation of Māori in negative socio-economic statistics. In Te Taitokerau, this has had a particularly devastating impact on Māori rangatahi, who have disproportionate rates of unemployment and suicide comparative to non-Māori, and Māori within other age groups. According to 2012 Ministry of Health statistics, the Māori youth suicide rate was 2.8 times the non-Māori youth rate.<sup>54</sup> There is a lack of incentives for rangatahi to stay in Te Tai Tokerau beyond secondary education, and a lack of options for those who choose to do so.

The current state of Māori social deficit is deeply rooted in our history of dispossession from our lands, through colonial practices that continue to this day. The whenua provided a stable intergenerational economic base, and was a source of not only nourishment but also collective identity, as evidenced through our whakapapa, which as Māori links us directly to Papatūānuku. This displacement proved detrimental to Māori culture, language, identity and economic development.

**Figure 5 – Māori land loss 1860 – 1939**<sup>55</sup>



<sup>54</sup> Ministry of Health, *Suicide Facts: Deaths and intentional self-harm hospitalisations* (Wellington, N.Z.: Ministry of Health, 2012), <http://www.health.govt.nz/publication/suicide-facts-deaths-and-intentional-self-harm-hospitalisations-2012>.

<sup>55</sup> Claudia Orange, *Illustrated history of the Treaty of Waitangi* (Wellington, N.Z.: Bridget Williams Books, 2001), 318-319.

At the time Te Tiriti o Waitangi was signed in 1840, the majority of Māori land remained in Māori possession. Through a series of unlawful Crown acquisitions and land sales, Māori land ownership declined as the settler population grew, and by 1911, the Māori land base had declined to just under 7 million acres, or 11% of Aotearoa New Zealand's landmass.<sup>56</sup> Today, Māori freehold land comprises a little over 3.5 million acres, or 5.5% of the New Zealand landmass. Successive legislative mechanisms were instituted by the Crown to justify the alienation of Māori people from Māori lands and included the Native Lands Act 1862, the Suppression of Rebellion Act 1863, the New Zealand Settlements Act 1863, the Native Schools Act 1867, the Tohunga Suppression Act 1907 and the Native Health Act 1909.<sup>58</sup>

Many rural Māori were subsequently forced, either through direct land seizures or coercion, to move into paid employment within settler society, away from whānau and cultural supports. This state-sponsored urban shift formed part of the broader colonial project, intended to systemically alienate Māori people from their lands whilst also providing the growing urban economy with the much-needed Māori labour force. In 1945, the Māori population was largely rural, with only a quarter of Māori living in urban areas. Post-World War II, the Māori population became increasingly urban, and by 1996 approximately 83% of Māori lived in urban areas.<sup>59</sup>

For those shifting to urban areas, housing was mostly provided through Māori Affairs and State Housing loan schemes, or through housing provided by their respective employment. The passing of the 1986 State Owned Enterprises (SOE) Act had a particular impact on urban Māori, with the passing of the Act seeing many Māori evicted from forestry and railway homes, which were then on sold to developers.<sup>60</sup> Notably, the implementation of the Act, and subsequent restructuring of State Advance to Housing New Zealand, also saw the withdrawal of State support for papakāinga housing, presenting significant barriers for those wishing to return to their home communities.<sup>61</sup>

## Contemporary Housing Issues

Due to economic and other disparities, many Māori families have been effectively locked out of attaining home ownership (and the benefits of inter-generational equity) through conventional means, yet are unable to leverage their interests in Māori land to secure home ownership. The benefits of good housing are linked to diverse wellbeing indicators, such as the wellbeing of children, education, health, employment and the intergenerational

<sup>56</sup> Victoria Kingi, "The alienation of Māori land and public works legislation (Ko Ngā Take Ture Māori)", *Auckland University Law Review* 8 no. 2 (1997): 563-570.

<sup>57</sup> Wilson Isaac, "Judge's Corner: Māori Land Today", *Māori Land Court*, May 2011, <http://www.justice.govt.nz/courts/maori-land-court/documents/judges-corner/Maori%20Land%20Today.pdf>

<sup>58</sup> Rawiri Waretini-Karena, "Takitoru: From Parallel to Partnership", *MAI Journal* 1 no. 1 (2012): 61-75.

<sup>59</sup> Te Puni Kōkiri, *Te Māori i Nga Rohe: Māori regional diversity*. (Wellington, N.Z.: Te Puni Kōkiri, 2001).

<sup>60</sup> New Zealand Coalition to End Homelessness, *Submission to the Productivity Commission: Housing Affordability for Māori* (February 2012), <http://www.productivity.govt.nz/sites/default/files/DR149%20-%20New%20Zealand%20Coalition%20to%20EndHomelessness%20-%20Draft%20Report%20Submission.pdf>

<sup>61</sup> Prior to the passing of the SOE Act, State Advance would assist marae to build papakāinga housing, as banks would not loan against multiply-owned land.

accumulation of wealth<sup>62</sup>. Therefore, growing disparity between the housing circumstances of Māori and non-Māori has not only economic, but social consequences, and represents serious systemic failure under Article 3 of Te Tiriti.

Nationwide, Māori have a much lower rate of home ownership compared with the general population, and in 2013, 28.2% of Māori owned their own home, compared with 49.8% for the overall population.<sup>63</sup> In Northland, this figure is higher at 35.0%,<sup>64</sup> however this needs to be understood in the context of housing quality at a regional level, with many Māori in Northland experiencing severe housing depreciation and living in housing that would be considered uninhabitable by urban standards. Personal income and age both have a significant impact on Māori home ownership rates, with the Māori population being both more youthful, and earning a lower median income than the general population.<sup>65</sup>

Meanwhile, housing markets in our urban areas (Tāmaki Makaurau Auckland in particular) are in a state of crisis, with the 11<sup>th</sup> Annual Demographia International Housing Affordability Survey<sup>66</sup> rating Tāmaki Makaurau as “severely unaffordable”, with a Median Multiple of 8.2, (which means the cost of housing is 8.2 times the median yearly household income), and ranking Tāmaki Makaurau as the 9<sup>th</sup> least affordable among 86 major markets. Given that Māori generally have lower incomes than the general population, Māori are likely to be significantly more affected by the high cost of housing. Data from Census 2013 suggest that the Māori median household income in Tāmaki Makaurau is 18% lower than that of the general population,<sup>67</sup> which increases the Median Multiple to 9.7, or almost 10 times the median household income.

According to 2013 Census Data, of the 125,601 Ngāpuhi living in New Zealand, 69.1% live in urban areas, and 40.3% live in Tāmaki Makaurau, more than double the 19.9% that live in Northland.<sup>68</sup> There are 144,491 hectares of Māori land in Te Tai Tokerau, which represents

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<sup>62</sup> Department of the Prime Minister and Cabinet, *Final Report of the House Prices Unit: House Price Increases and Housing in New Zealand* (Wellington, N.Z.: Department of the Prime Minister and Cabinet, 2008), <http://www.dpmc.govt.nz/dpmc/publications/hpr-report/>.

<sup>63</sup> Statistics New Zealand, *2013 Census QuickStats About Housing* (Wellington, N.Z.: Statistics New Zealand, 2013), <http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-housing/home-ownership-individuals.aspx>.

<sup>64</sup> Te Puni Kōkiri, *Māori Housing Trends* (Wellington, N.Z.: Te Puni Kōkiri, 2010), <http://www.tpk.govt.nz/en/a-matou-mohiotanga/housing>.

<sup>65</sup> Ibid.

<sup>66</sup> Demographia, *11<sup>th</sup> Annual Demographia International Housing Affordability Survey: 2015* (Demographia, 2015), <https://s3.amazonaws.com/s3.documentcloud.org/documents/1505021/dhi2015embargo.pdf>.

<sup>67</sup> Statistics New Zealand, *2013 Census QuickStats about income – tables* (Wellington, N.Z.: Statistics New Zealand, 2013), <http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-income.aspx>.

Statistics New Zealand, *2013 Census QuickStats about Māori – tables* (Wellington, N.Z.: Statistics New Zealand, 2013), <http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-about-Māori-english.aspx>.

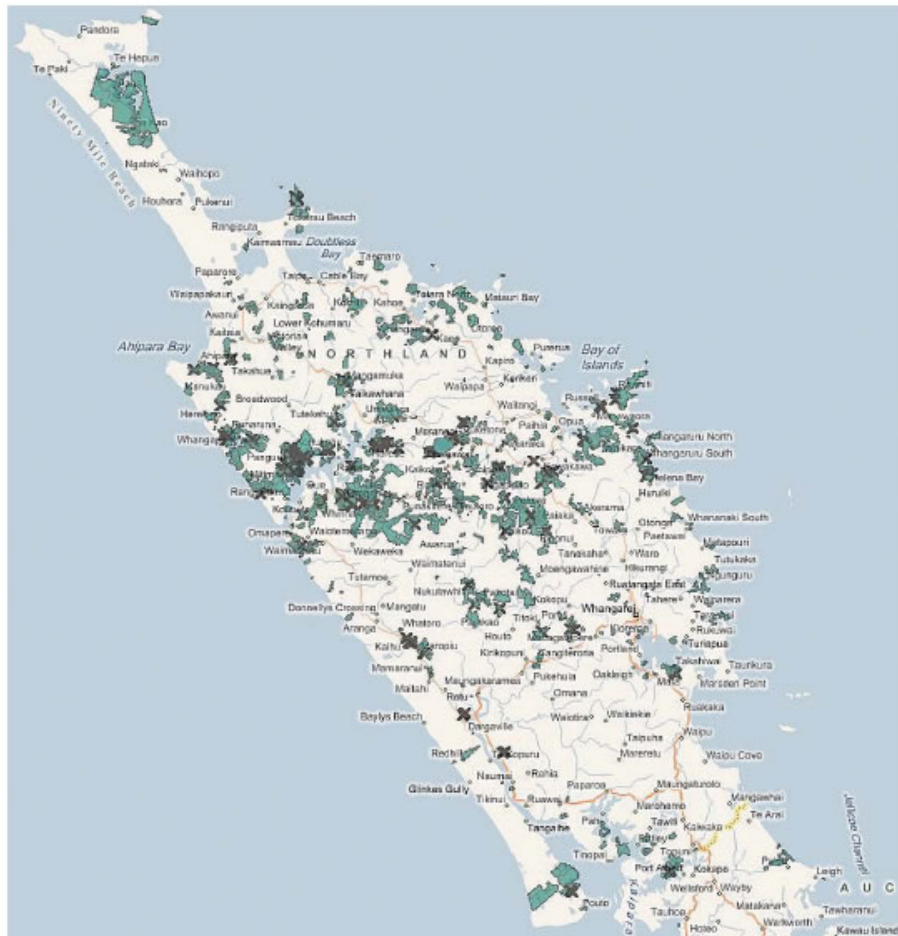
Whilst no specific data on Māori household income is currently available, the personal income of Māori, compared with the overall population is approximately 18% lower. Given the median annual household income for the general population in Auckland is 76,500, it has been estimated that median Māori household income would be \$63,320.

<sup>68</sup> Statistics New Zealand, *Ngāpuhi Iwi Profile* (Wellington, N.Z.: Statistics New Zealand, 2013), <http://www.stats.govt.nz/~media/Statistics/Census/2013%20Census/profile-and-summary-reports/iwi-profiles/01-Ngāpuhi-poster-print.pdf>.



11.38% of all land in the region.<sup>69</sup> Additionally, there has been a push by central government in recent years to ‘develop’ Māori land, and according to Ministry of Agriculture and Forestry estimates, approximately 40% of Māori freehold land is under-developed, and 80% is non-arable (supporting a limited range of productive uses)<sup>70</sup>. Land considered non-arable may, however, be suitable for housing, and given the rising cost of housing in Tāmaki Makaurau, where many of our people live, warrants further investigation. Developing our land for housing in Northland may be a way to provide affordable housing for our whānau, particularly on blocks (like Pehiāweri) that are located close to employment centres.

**Figure 6 – Māori land in Te Tai Tokerau.<sup>71</sup>**



The project site, Pehiāweri Marae, is one of the few remaining peri-urban Māori land blocks in the Whāngarei area. Although the original title for the Pehiāweri block that was issued to Kake Peru in 1865 was for 289 acres, at the present time the blocks retained by the Kake whānau consist of a total of 48 acres across two sections – Pehiāweri Marae and Pehiāweri B1B.

<sup>69</sup> Office of the Auditor-General, *Government planning and support for housing on Māori land* (Wellington, N.Z.: Office of the Auditor-General, 2011), 35, <http://www.oag.govt.nz/2011/housing-on-Māori-land>.

<sup>70</sup> Ministry of Agriculture and Forestry, *Māori Agribusiness in New Zealand: a Study of the Māori Freehold Land Resource* (Wellington, N.Z.: Ministry of Agriculture and Forestry, 2011), <http://www.tetumupaeroa.co.nz/file/23353>. It should be noted that this notion of 'under-development' of land is a western concept, and does not recognise the ongoing intergenerational relationship indigenous peoples have with their lands as kaitiaki.

<sup>71</sup> OAG, *Government planning and support*, 35.

## Opportunities

### The Māori Renaissance and Te Tiriti o Waitangi

In the 1960's, Māori society entered an epoch of significant political resistance and social change. This era represented a significant turning point in a history of dispossession that began with colonisation, followed by successive Treaty breaches, the systemic alienation of Māori land, the subsequent over-representation of Māori in deficit statistics (including poor housing, education and health disparities, etc.) and ultimately, the assumed sovereignty and political dominance of the colonial power.

During the late 1960's Māori society experienced the beginnings of what has been termed the "Māori Renaissance". This renaissance was marked by the increasing visibility of Māori political consciousness, informed by a history of political resistance post-1840. Aspects of the Māori renaissance included a revitalisation of the collective cultural consciousness, a gradual decline of assimilationist views, greater political activism, and a drive for Māori sovereignty. Significant events included the Māori Land March (led by Dame Whina Cooper) in 1975, and the occupation at Takaparawhau (Bastion Point) in 1977.

**Figure 7 – 1975 Hīkoi on Lambton Quay, Wellington.<sup>72</sup>**



In 1975, the Waitangi Tribunal was established as “a permanent commission of inquiry charged with making recommendations on claims brought by Māori relating to actions or omissions of the Crown that potentially breach the promises made in the Treaty of Waitangi”.<sup>73</sup> At the time when the tribunal was established, the legislation only allowed for

<sup>72</sup> Museum of New Zealand Te Papa Tongarewa, *Treaty 2 U*, <http://www.treaty2u.govt.nz/the-treaty-today/waitangi-tribunal/>.

<sup>73</sup> New Zealand Ministry of Justice – Tāhū o te Ture, *Waitangi Tribunal*, <http://www.justice.govt.nz/tribunals/waitangi-tribunal>.

Te Tiriti o Waitangi (The Te Tiriti o Waitangi) was signed by representatives of the British Crown and Māori Rangatira in 1840. The Treaty aimed to protect the rights of Māori and to keep their land, forests, fisheries and

new claims to be brought before the tribunal. This did not include any historical breaches of the Treaty. Crucially, in 1985 the Crown ruled that the Tribunal was able to retrospectively consider claims back to the signing of the Treaty in 1840.

The Te Tiriti o Waitangi claims settlement process is important as it has increased recognition of the rights of Māori and reinforced the ongoing relevance of the Treaty. Where claims have been settled, redress has provided an economic base from which to rebuild our land-based tribal economies and to start to address social issues within our own communities. Treaty claims have seen early post-settlement iwi (notably Ngāi Tahu, Waikato-Tainui, and Ngāti Whātua Ōrākei) amass significant economic wealth, becoming major economic players in their home rohe. As more post-settlement entities reach maturity, the Māori economy is projected to be a significant force in New Zealand's economic landscape. Additionally, Māori cultural knowledge is increasingly seen by decision-makers as "a key component in the current focus on lifting the performance and productivity of the Māori asset base to grow New Zealand's GDP".<sup>74</sup>

As Ngāpuhi is the largest and final iwi to have its grievances heard by the Waitangi Tribunal, the Ngāpuhi-nui-tonu settlement is expected to create significant opportunities for social and economic development in Te Tai Tokerau. Last year, the Waitangi Tribunal released its report on stage one of WAI 1040: Te Paparahi o Te Raki inquiry covering claims in the Northland region. This stage one report, titled *He Whakaputanga me te Tiriti – The Declaration and the Treaty*,<sup>75</sup> focuses on the meaning and intention of the Māori language texts of He Whakaputanga o te Rangatiratanga o Nu Tireni and Te Tiriti o Waitangi, proving unequivocally that rangatira did not cede sovereignty at the signing of Te Tiriti. Whilst the report does not comment on how the Crown came to assume sovereignty, or articulate how the treaty relationship should operate in a modern context, it is anticipated that these findings will impact on the Ngāpuhi settlement and iwi-Crown relationships moving forward.

### Planning Controls and Legislative Reform

A number of recent (and ongoing) planning mechanisms and legislative reforms have opened up new opportunities for owners of Māori Land to utilise their whenua for papakāinga housing. Previously, the majority of Māori land was zoned rural, restricting housing to one whare and an ancillary dwelling. Rural zoning, which permits a maximum of two dwellings (to accommodate a farmer and a share milker), is clearly unsuitable for whenua Māori, which generally has many owners. Additionally, from both a cultural and practical basis Māori landowners are more likely to prefer settlement patterns that enable a greater degree of communality. With changing political and social conditions, local government bodies are increasingly responding to the cultural and social needs of Māori landowners, introducing progressive papakāinga and Māori purpose zoning in various districts across the motu.

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treasures, and to enable British settlers to establish settlements and laws for their own people. Numerous breaches of the Treaty led to the unlawful assumption of sovereignty by the Crown, the dispossession of Māori people from their lands, and ultimately, the state of social deficit with which we are faced today.

<sup>74</sup> Traci Houppa, Chair of the Federation of Māori Authorities, quoted in Callaghan Innovation, "Matauranga Māori key to growing industry", last updated 10 June 2015, <https://www.callaghaninnovation.govt.nz/accelerate-march-2014/matauranga-m%C4%81ori-key-growing-industry>

<sup>75</sup> Waitangi Tribunal, *He Whakaputanga me te Tiriti = The Declaration and the Treaty: the report on Stage 1 of the Te Paparahi o Te Raki Inquiry*, (Lower Hutt, N.Z.: Legislation Direct, 2014).

Pehiāweri Marae (and adjacent Pehiāweri B1B) is located within Whāngarei District Council's rohe. Whāngarei District Council (WDC) has a progressive papakāinga policy, which aims to guide and support whānau through the consenting process. WDC papakāinga provisions require the preparation of Outline Development Plans as opposed to Resource Consent applications<sup>76</sup>, and for the purpose of papakāinga housing densities are based on the 'carrying capacity of the land' and 'tikanga Māori' as opposed to arbitrary lot sizes.

In 2009, Whāngarei District Council initiated a two-phase project (Plan Change 94: Papakāinga Housing) to incorporate provisions for papakāinga housing into the district plan. Phase One of the project was to develop objectives and policies for inclusion into the District Plan to provide a planning framework to support papakāinga housing. Phase Two relates to the implementation methods, focusing on ways in which the regulatory processes can be simplified, with an emphasis on working with landowners to develop papakāinga development plans which reflect their aspirations, rather than simply designing to comply with the requirements of district and regional plans. The Papakāinga Development Plan is intended to facilitate development in a flexible manner whilst ensuring the sustainable management of natural and physical resources in an integrated way.

The policy initially stated that some rules will follow in a separate plan change, which was the intention at the time. Since then however, WDC have been piloting a process whereby the Council policy staff provide information and assistance to the whānau (in the form of GIS constraint mapping etc.) with a view to coaching them through the consenting process. WDC have since formed the view that the process should be less linear, and less about ticking boxes. WDC propose that the process should follow more of a narrative format, with an emphasis on learning rather than compliance, and have been working with the Māori Land Court in Taitokerau to blend the Council and the Court processes into one narrative story.<sup>77</sup>

As landowners we have good working relationships with both WDC planners and Māori Land Court staff. There is the potential for direct input into WDC's new and largely untested papakāinga policy and processes, and the opportunity to develop tools and models specifically applicable to the WDC area. This pilot project is also an opportunity to establish the financial costs of development on Māori land within the Whāngarei area, including establishing a precedent of development contribution waivers and other support.

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<sup>76</sup> Papakāinga developments in Whāngarei currently still require resource consent, however WDC are working towards developing district plan provisions which will allow for papakāinga as a permitted activity.

<sup>77</sup> Nick Williamson, *Email correspondence* (April 7, 2014).

## **Papakāinga – a Working Model?**

The word ‘papakāinga’ derives from ‘papa’ (in reference to Papatūānuku, the ancestral earth mother), and ‘kāinga’ (the village communal living environment). In pre-European times, papakāinga represented the centre of life and were the places where mana whenua lived, worked, and raised their families. Today, the term ‘papakāinga’ is generally used to refer to a collection of dwellings occupied by Māori, connected by kinship or kaupapa, with dwellings located in reasonable proximity to each other and generally relating to a marae or other communal areas or buildings. The term ‘papakāinga’ is predominantly used in reference to housing occupied by mana whenua on ancestral land, however in recent times the word has also been used for ‘papakāinga-style’ developments in urban areas.

Diagrammatic analysis of pā/kāinga has been undertaken in relation to density and clustering, and analysis of contemporary papakāinga and cohousing site plans has been undertaken across five areas – figure-ground, circulation, private/shared/communal space, green space, and parking. The purpose of the analysis is to identify patterns and principles that can be applied to the site planning of Pehiāweri Marae Papakāinga.

## **Pre-European Pā & Kāinga**

Pre-European settlements could be divided into two main categories – kāinga (unfortified villages), pā, (fortified villages, built on elevated and naturally defensible sites). A third category would be seasonal encampments, associated with mahinga kai (food gathering areas).

Kāinga were the dominant form of settlement pre-contact, and the focal point of economic activities. Kāinga were deliberately sited in close proximity to significant resources, and were often associated with a pā nearby. Generally the kāinga were winter settlements, particularly for iwi who moved seasonally to mahinga kai encampments, however some kāinga were inhabited year-round. The occupation patterns of pā varied; some were fortified village bases, others were defensible boltholes in times of conflict, or uninhabited storehouses. Both kāinga and pā consisted of dense clusters of dwellings, arranged in family and extended family groups, with communal facilities sited in accordance with tapu and noa.

Five post-contact Pā have been chosen for analysis. The selected plans have been drawn by European settlers, and date from the 1840s-1880s. Architectural conventions vary, and in some cases the plans have been re-drawn from an earlier image. Best efforts have been made to correctly interpret the plans, sometimes by cross-referencing with other versions of the same plan. Comparable plans of kāinga are not available, however photographs and drawings of kāinga suggest similar (but less compact) settlement patterns, with dwellings in close proximity and arranged in clusters.

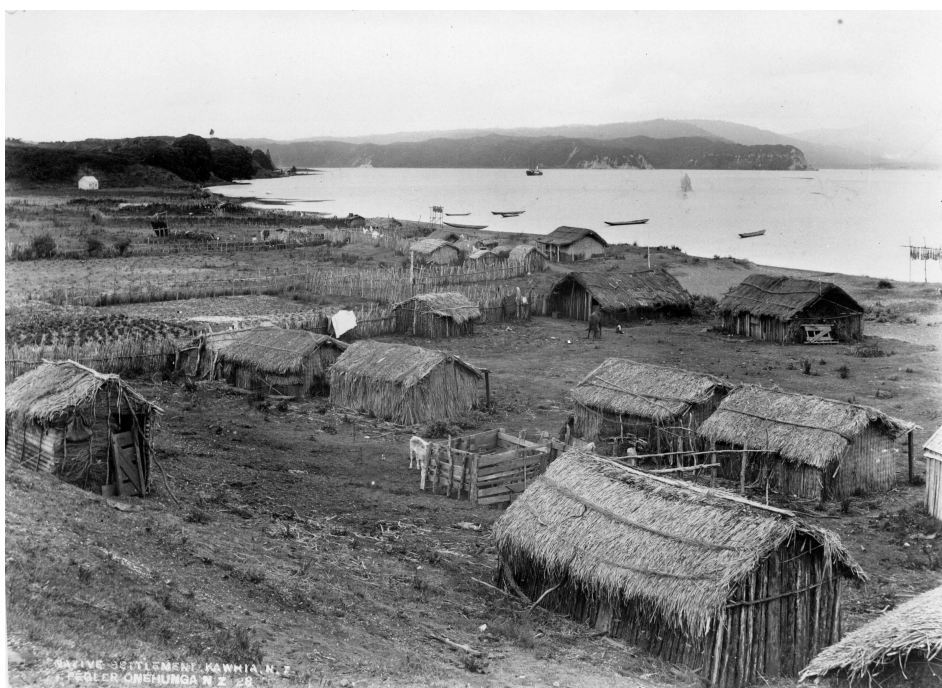
Diagrammatic analysis of pā precedents has been undertaken using the following categories:

- Figure-ground
- Circulation
- Shared/private space

Figure 8 – Parihaka Pā<sup>78</sup>



Figure 9 – Kawhia Pā<sup>79</sup>



<sup>78</sup> “Parihaka Pa”, in *Union Steam Ship Company of New Zealand : Assorted photographs*, Ref: 1/2-056542-F, (Wellington, N.Z.: Alexander Turnbull Library, ca 1900), <http://natlib.govt.nz/records/23078293>.

<sup>79</sup> Enos Silvanus Abijah Pegler, “Looking over Kawhia Pa toward Kawhia harbor”, in *Views of Kawhia Pa and Stuart Street, Dunedin* by Miss Burgess, Ref: 1/2-019363-F, (Wellington, N.Z.: Alexander Turnbull Library), <http://natlib.govt.nz/records/22709281>.



## Owharawai Pā, Ohaeawai, Northland

Figure 10 – Plan of Owharawai Pā, Ohaeawai, Northland.<sup>80</sup>

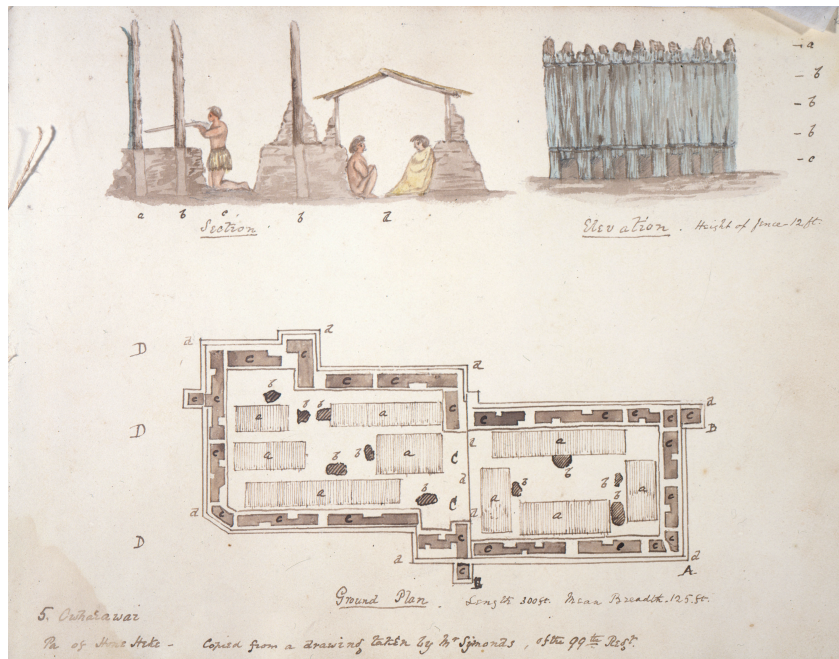
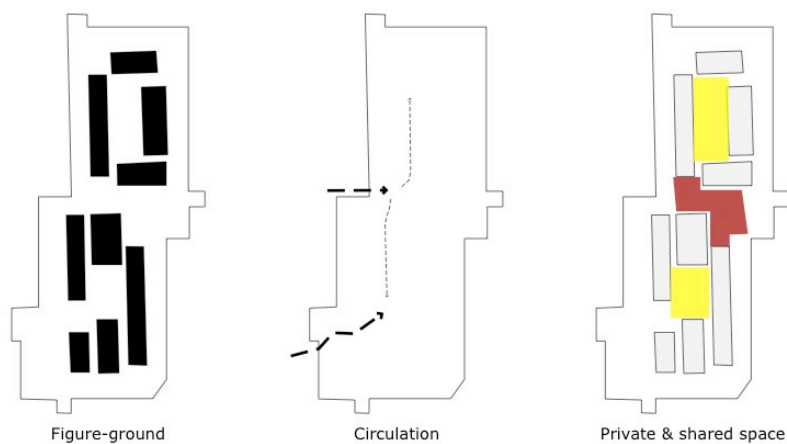


Figure 11 – Diagrammatic analysis of Owharawai Pā, Ohaeawai, Northland



<sup>80</sup> Thomas Biddulph Hutton, "Owharawai. Pa of Hone Heke, copied from a drawing taken by Mr Symonds of the 99th Regt [1845]", In *Book of New Zealand sketches* by Thomas Biddulph Hutton, Ref: E-137-q-006, (Wellington, N.Z.: Alexander Turnbull Library, ca 1910), <http://natlib.govt.nz/records/22724859>.

## Parihaka Pā, Taranaki

Figure 12 – Plan of Parihaka Pā.<sup>81</sup>

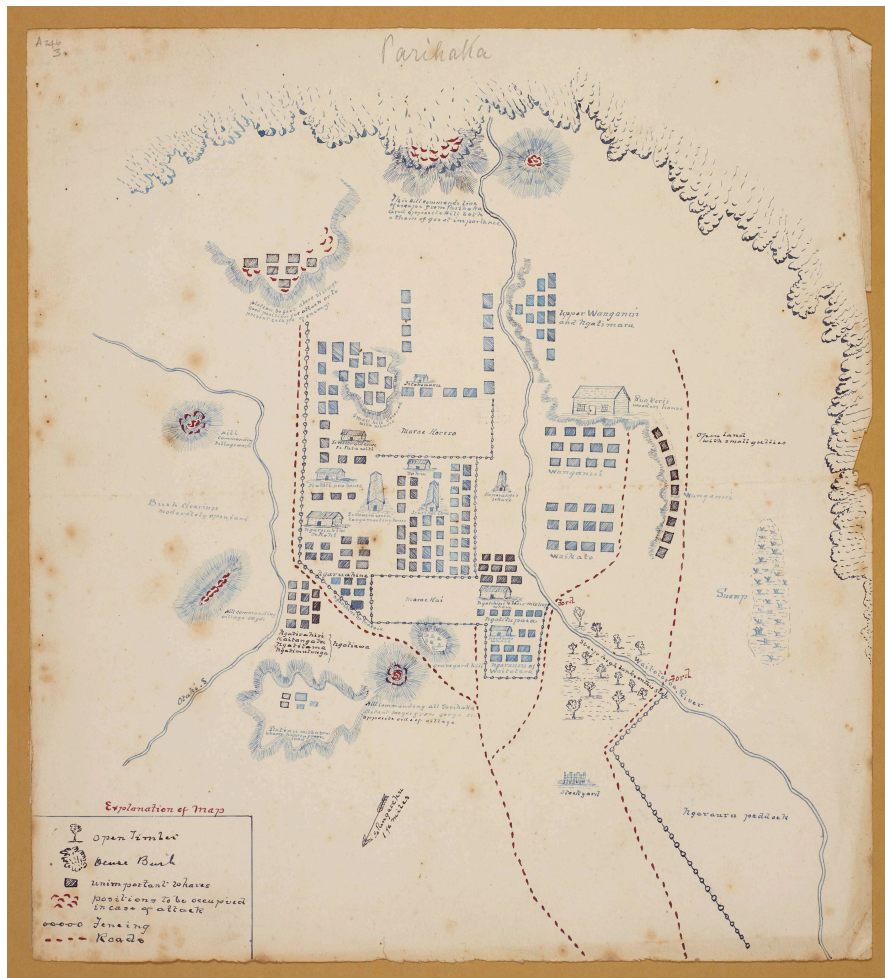
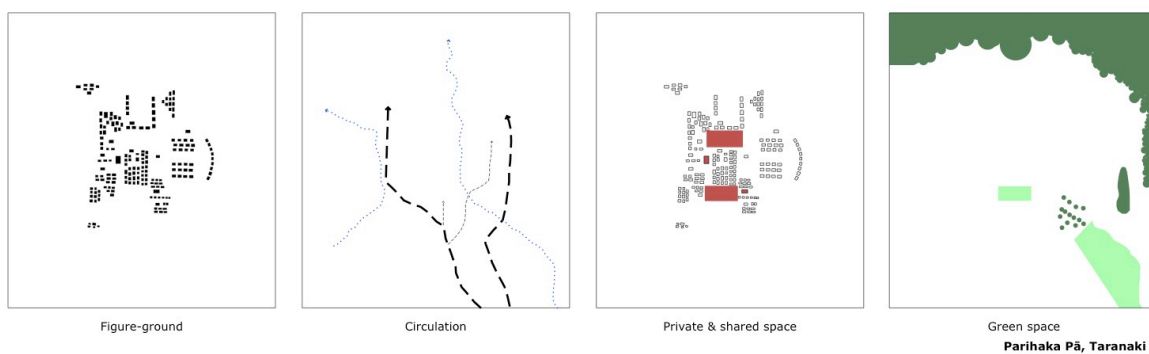


Figure 13 – Diagrammatic analysis of Parihaka Pā



<sup>81</sup> Stephenson Percy Smith, "[Plan of] Parihaka", Ref: A-246-003, (Wellington, N.Z.: Alexander Turnbull Library, ca 1881), <http://natlib.govt.nz/records/22445434>.



## Ruaapekapeka Pā, Towai, Northland

Figure 14 – Plan of Ruaapekapeka Pā<sup>82</sup>

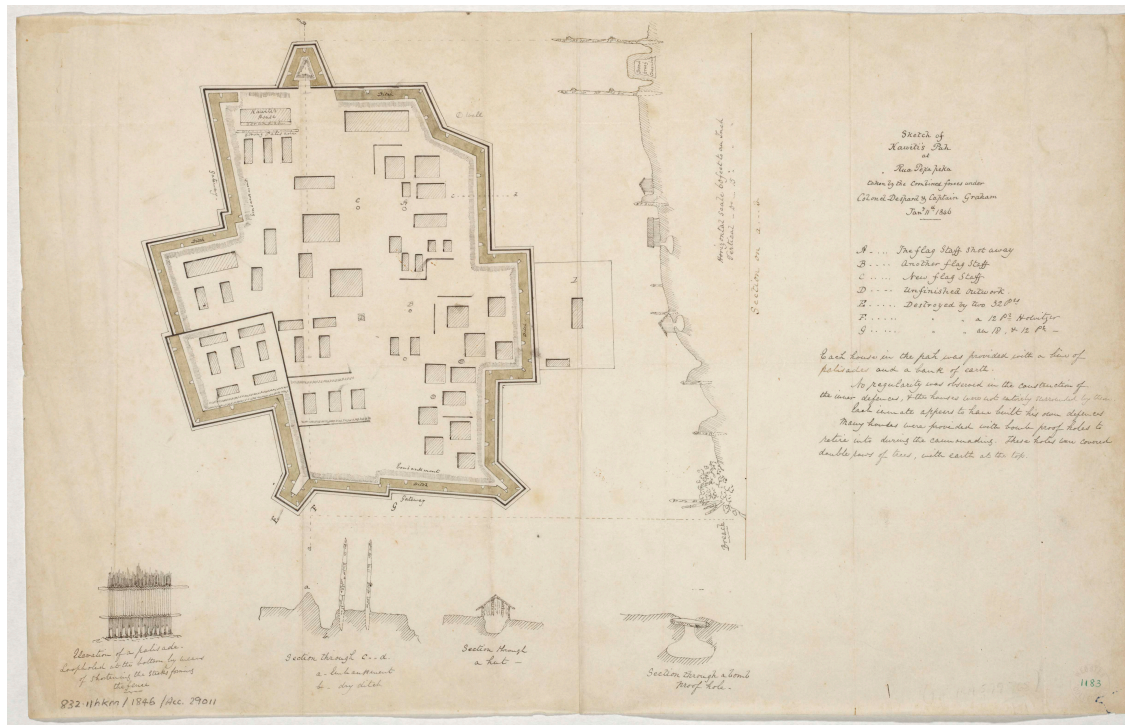
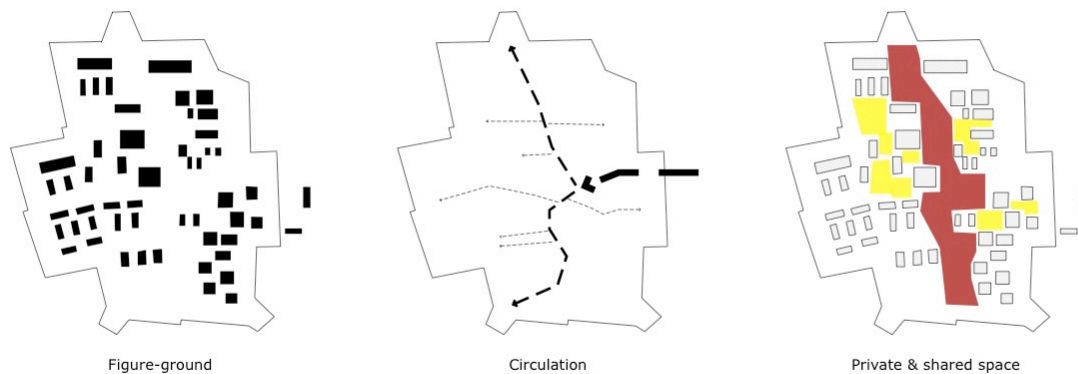


Figure 15 – Diagrammatic analysis of Ruaapekapeka Pā



<sup>82</sup> Captain Marlow, "Sketch of Kawiti's Pah at Rua Peka Peka", In *Maps from* collection by Kenneth Athol, Ref: MapColl- 832.11hkm/1846/acc.29011, (Wellington, N.Z.: Alexander Turnbull Library, 1846), <http://natlib.govt.nz/records/22793822>.

## Te Tiki o te Ihingarangi Pā, Pukekura, Waikato

Figure 16 – Plan of Te Tiki o te Ihingarangi Pā<sup>83</sup>

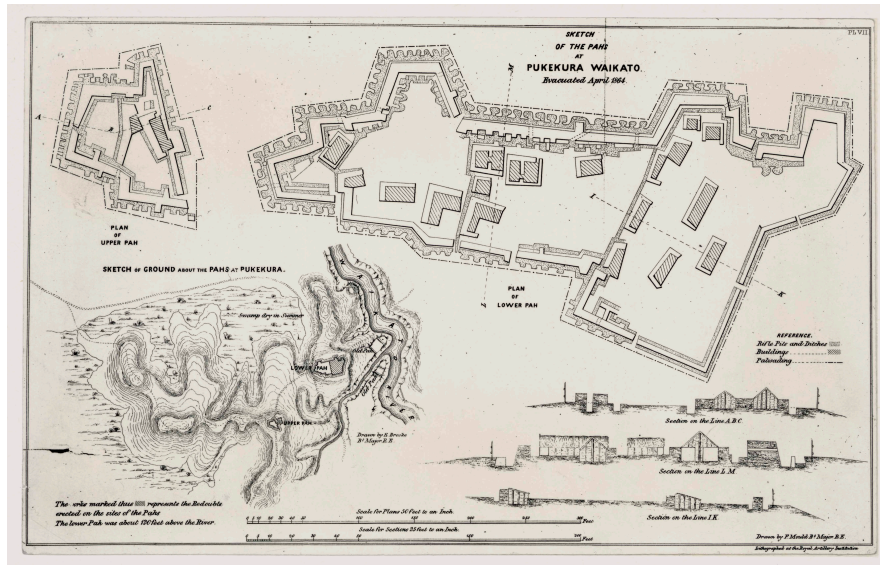
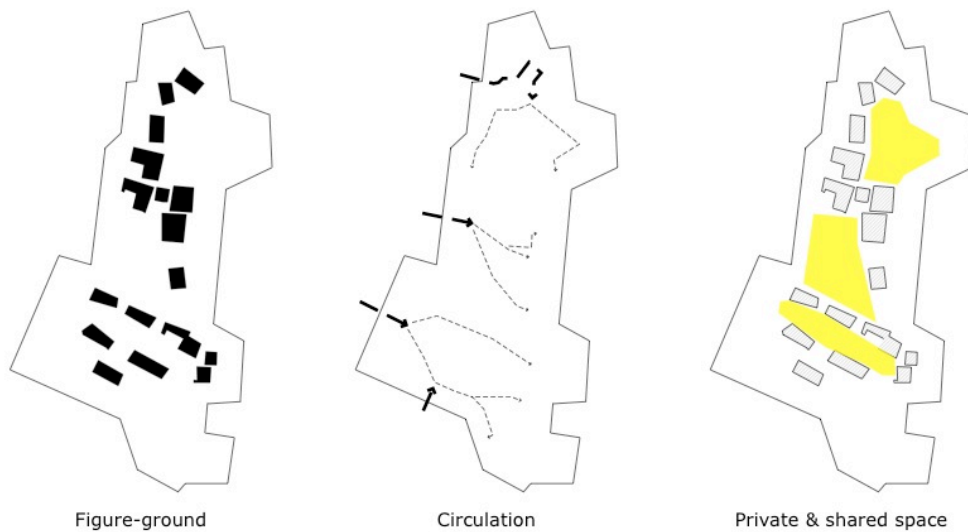


Figure 17 – Diagrammatic analysis of Te Tiki o te Ihingarangi Pā



<sup>83</sup> Edward Thomas Brooke, "Photograph of plans and sketches of the pas at Pukekura, Waikato, drawn by F Mould and E Brooke of the Royal Engineers", In *Collection of photographs* by James Cowan, Ref: PAColl-3033-1-38, (Wellington, N.Z.: Alexander Turnbull Library, 1864), <http://natlib.govt.nz/records/22790128>.

## Wereroa Pā, Waitotara River, South Taranaki

Figure 18 – Plan of Wereroa Pā<sup>84</sup>

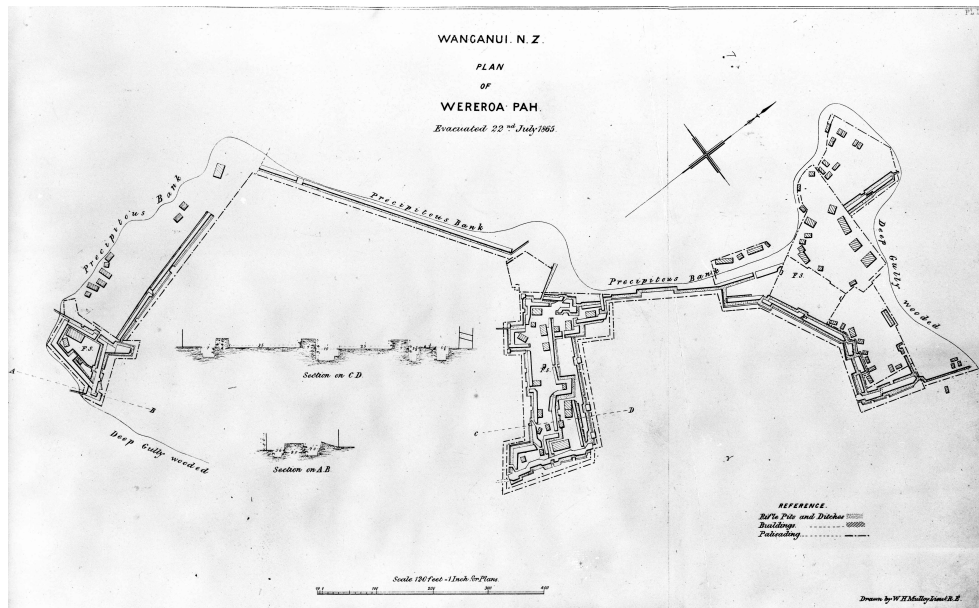
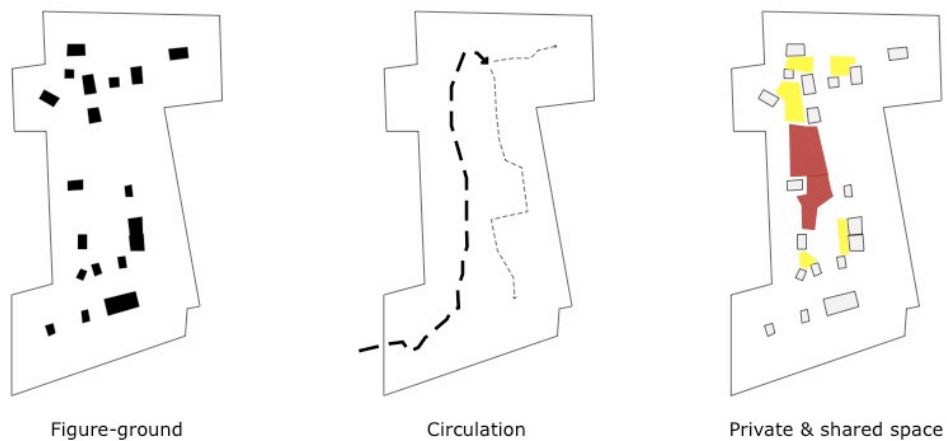


Figure 19 – Diagrammatic analysis of Wereroa Pā



<sup>84</sup> W.H. Mulloy, "Plan of Wereroa Pa, on the Waitotara River, South Taranaki", in *Original photographic prints and postcards from file print collection*, Box 9, Ref: PAColl-6181-18, (Wellington, N.Z.: Alexander Turnbull Library), <http://natlib.govt.nz/records/22469377>.

## Contemporary Papakāinga

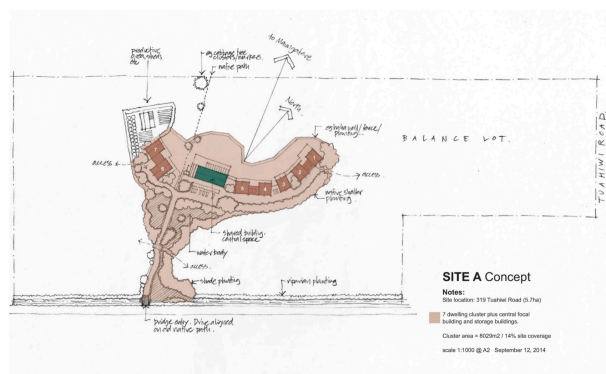
There is an increasing desire amongst owners of Māori land to use their land to build high-quality, healthy homes and strengthen their communities. Papakāinga are also seen as a potential solution to addressing Aotearoa New Zealand's chronic undersupply of affordable housing. Contemporary papakāinga as a model has extraordinary, yet largely unrealised, potential for social, cultural, economic and environmental regeneration of Māori communities.

Diagrammatic analysis of 10 contemporary precedents has been undertaken using the following categories:

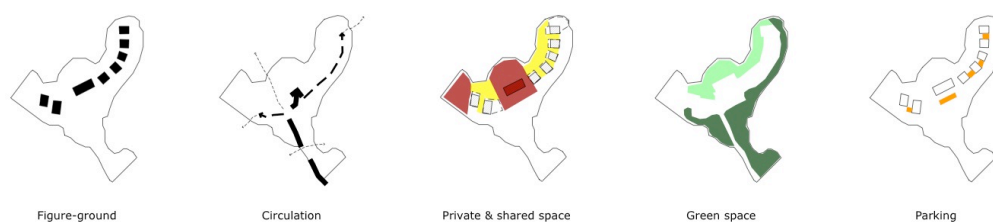
- Figure-ground
- Circulation
- Shared/private space
- Green space
- Parking

## Kaiapoi Māori Reserve, Site A Tuahiwi Rd, Concept 1, Tuahiwi, Canterbury

**Figure 20 – Kaiapoi Māori Reserve, Site A Tuahiwi Rd, Concept 1**<sup>85</sup>



**Figure 21 – Diagrammatic analysis of Tuahiwi Rd Concept 1**



**Kaiapoi Māori Reserve, Site A Tuahiwi Rd, Concept 1, Tuahiwi, Canterbury**

<sup>85</sup> Lucas Associates, Development Opportunities in Kaiapoi Māori Reserve 873 Tuahiwi, Landscape Assessment re draft Waimakariri District Planning Provisions (2014), [http://www.waimakariri.govt.nz/Libraries/LURP\\_Action\\_21/Lucas\\_Associates\\_Development\\_Opportunities\\_in\\_Kaipoi\\_MR\\_873\\_Landscape\\_Assessment\\_Sept\\_2014.sflb.ashx](http://www.waimakariri.govt.nz/Libraries/LURP_Action_21/Lucas_Associates_Development_Opportunities_in_Kaipoi_MR_873_Landscape_Assessment_Sept_2014.sflb.ashx), 10.



## Kaiapoi Māori Reserve, Site A Tuahiwi Rd, Concept 2, Tuahiwi, Canterbury

Figure 22 – Kaiapoi Māori Reserve, Site A Tuahiwi Rd, Concept 2.<sup>86</sup>

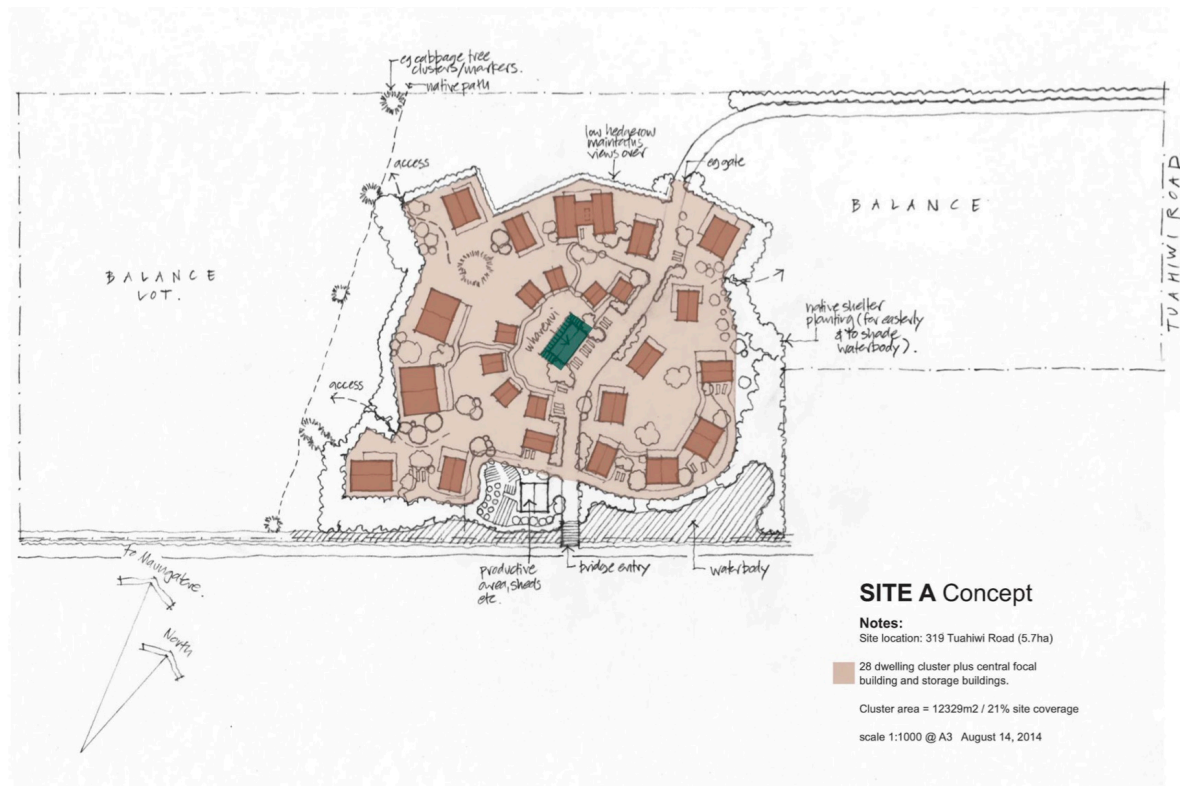
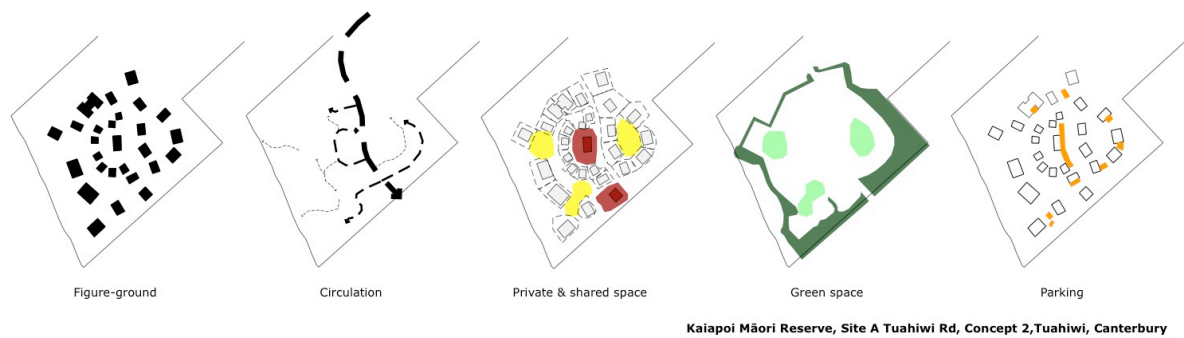


Figure 23 – Diagrammatic analysis of Tuahiwi Rd, Concept 2



<sup>86</sup> Lucas Associates, Development Opportunities in Kaiapoi Māori Reserve, 13.

## Kaipoi Māori Reserve, Site C Rangiora-Woodend Rd, Woodend, Canterbury

Figure 24 – Kaipoi Māori Reserve, Site C Concept Rangiora-Woodend Rd.<sup>87</sup>

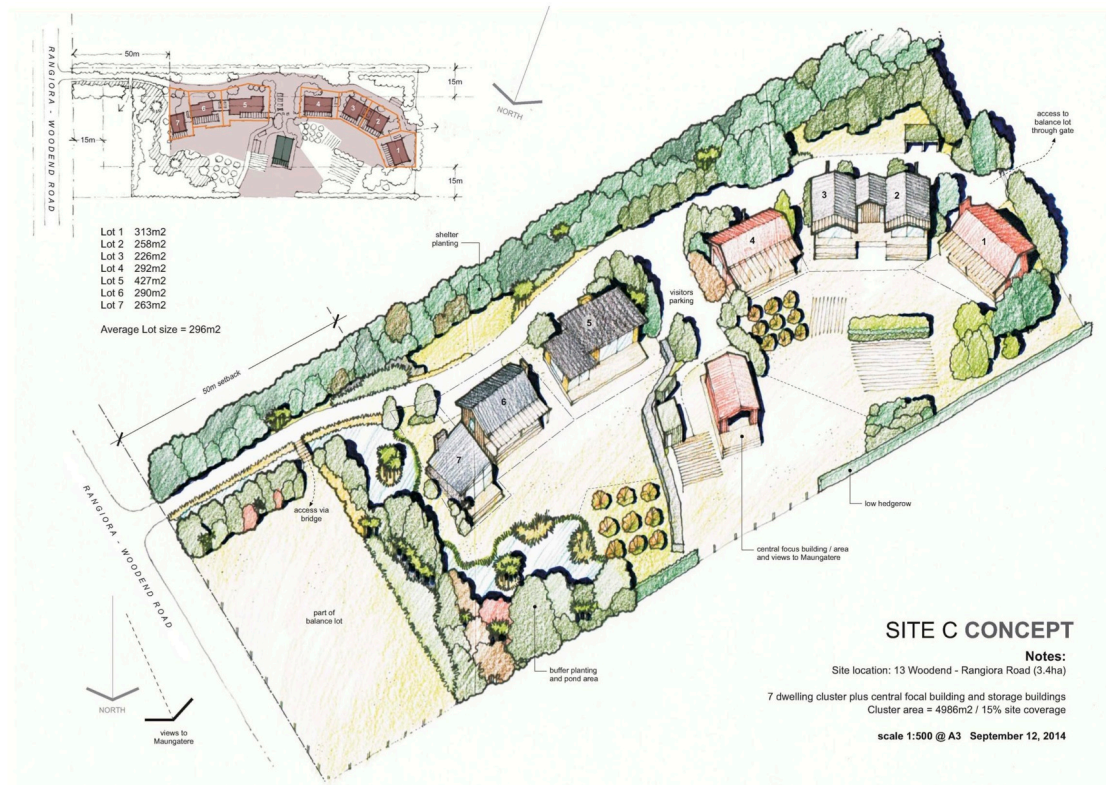
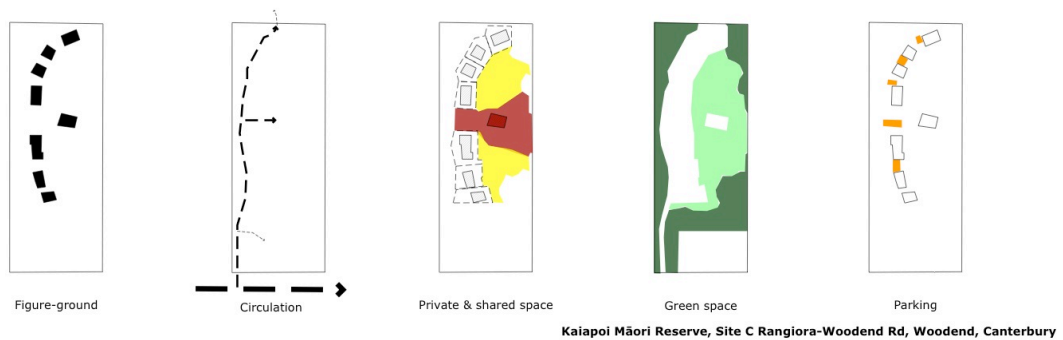


Figure 25 – Diagrammatic analysis of Rangiora-Woodend Rd



<sup>87</sup> Lucas Associates, Development Opportunities in Kaipoi Māori Reserve, 16.

## Kaiapoi Māori Reserve, Site D Topito Rd, Tuahiwi, Canterbury

Figure 26 – Kaiapoi Māori Reserve, Site D Concept Topito Rd<sup>88</sup>

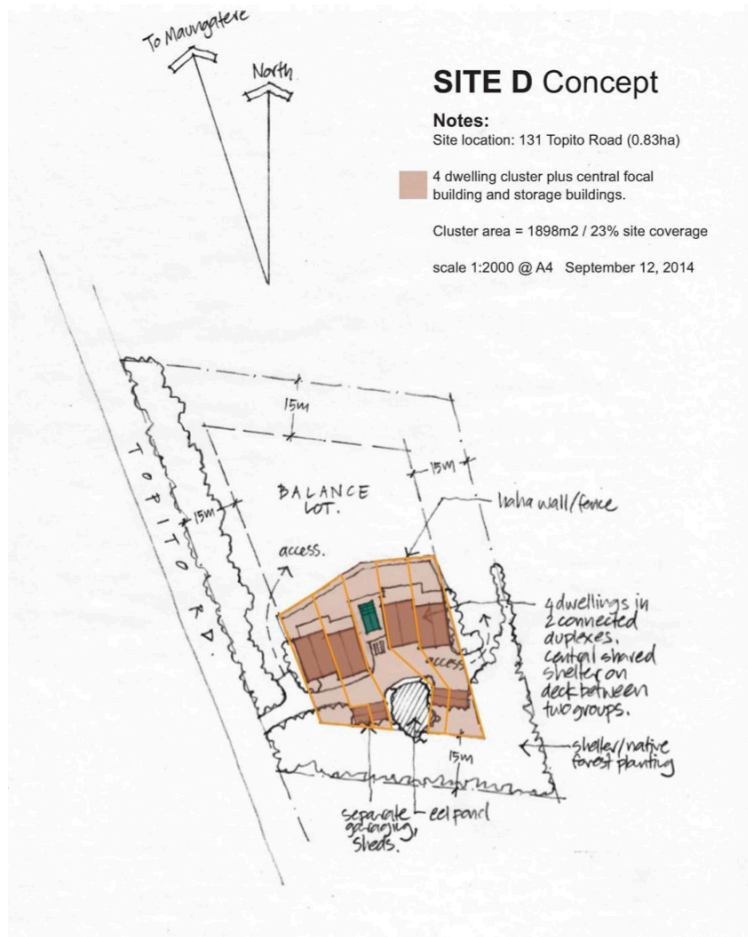
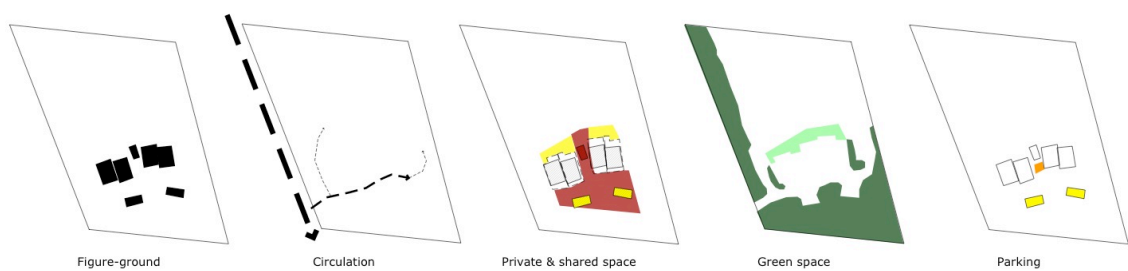


Figure 27 – Diagrammatic analysis of Topito Rd



Kaiapoi Māori Reserve, Site D Topito Rd, Tuahiwi, Canterbury

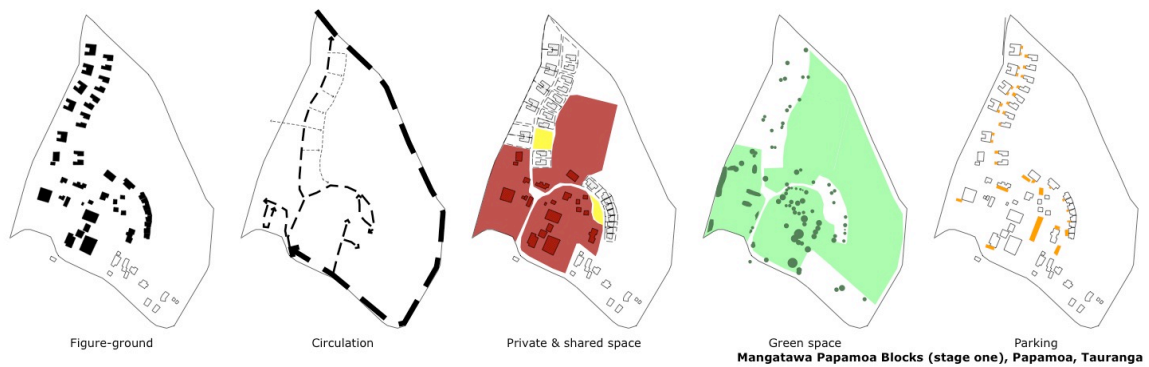
<sup>88</sup> Lucas Associates, Development Opportunities in Kaiapoi Māori Reserve, 18.

## Mangatawa Papamoa Blocks (stage one), Papamoa, Tauranga

Figure 28 – Mangatawa Papamoa Blocks Stage 1 master site layout<sup>89</sup>



Figure 29 – Diagrammatic analysis of Mangatawa Papamoa Blocks Stage 1 master site layout



<sup>89</sup> "Recent News", PSL Papakāinga Solutions Limited, last updated July 2014, <http://www.papakāinga.co.nz/>.

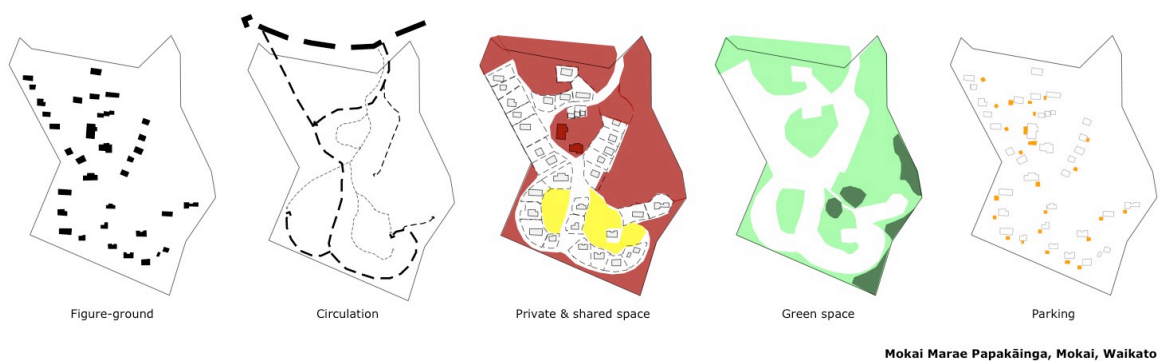


## Mokai Marae Papakāinga, Mokai, Waikato

Figure 30 – Mokai Marae Papakāinga masterplan<sup>90</sup>



Figure 31 – Diagrammatic analysis of Mokai Marae Papakāinga masterplan

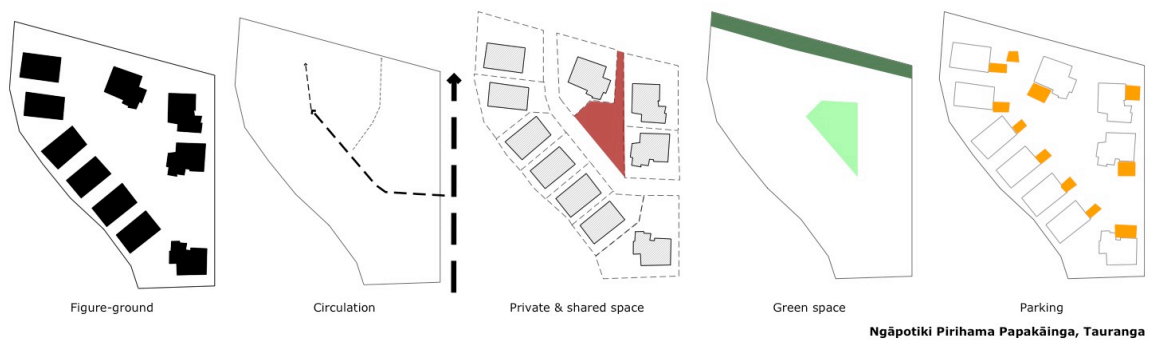


<sup>90</sup> Hoskins et al., *Ki te hau kāinga*, 6.

**Figure 32 – Ngāpotiki-Piriama Papakāinga concept plan.<sup>91</sup>**



**Figure 33 – Diagrammatic analysis of Ngāpotiki-Piriama Papakāinga concept plan**



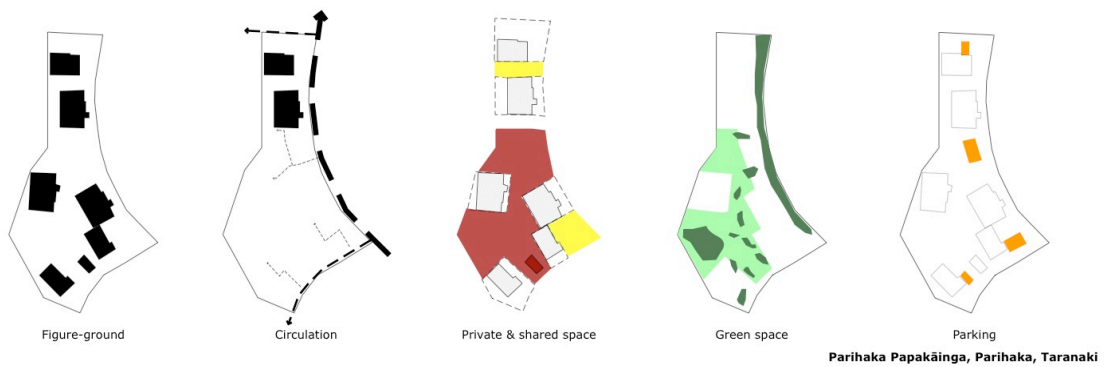
<sup>91</sup> Victoria Kingi, *Papakāinga Housing in the WMOP and the role of the Joint Agency Group: Presentation to SmartGrowth* (2014), [http://www.smartgrowthbop.org.nz/media/75397/jag\\_presentation\\_to\\_sgic\\_november\\_2014.pdf](http://www.smartgrowthbop.org.nz/media/75397/jag_presentation_to_sgic_november_2014.pdf), 13.

## Parihaka Papakāinga, Parihaka, Taranaki

Figure 34 – Parihaka Papakāinga concept plan.<sup>92</sup>



Figure 35 – Diagrammatic analysis of Parihaka Papakāinga concept plan



<sup>92</sup> Reproduced with permission from designTRIBE Architects

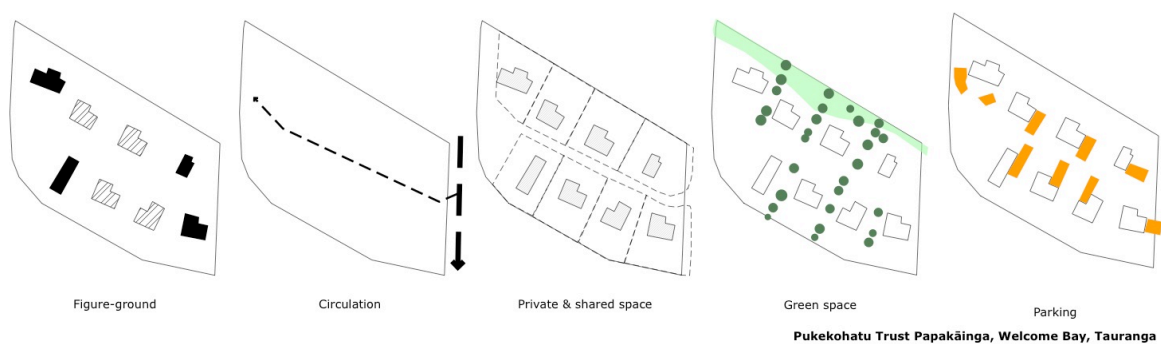


## Pukekohatu Trust Papakāinga, Welcome Bay, Tauranga

Figure 36 – Pukekohatu Trust Papakāinga concept plan.<sup>93</sup>



Figure 37 – Diagrammatic analysis of Pukekohatu Trust Papakāinga concept plan



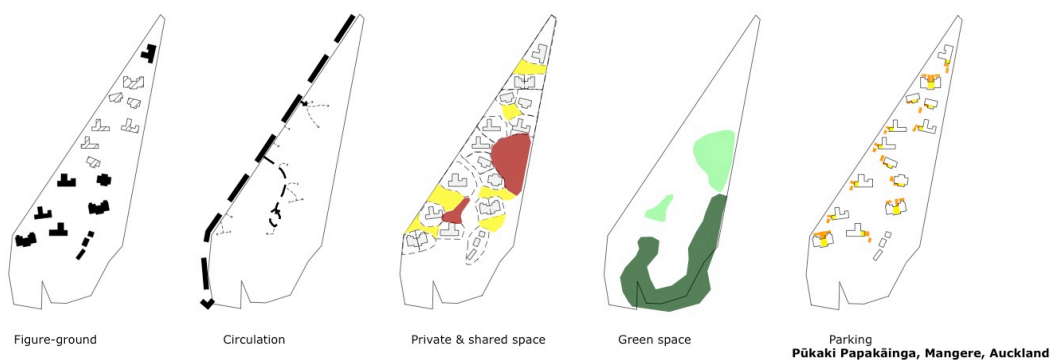
<sup>93</sup> Victoria Kingi, *WBOP Maori Housing Forum Papakāinga Update: 27th March 2013*, [http://www.smartgrowthbop.org.nz/media/63453/aug9th-papakāinga\\_presentation\\_-\\_victoria\\_kingi\\_-\\_2013\\_\\_read-only\\_.pdf](http://www.smartgrowthbop.org.nz/media/63453/aug9th-papakāinga_presentation_-_victoria_kingi_-_2013__read-only_.pdf), 7.

## Pūkaki Papakāinga, Mangere, Tāmaki Makaurau

Figure 38 – Pūkaki Papakāinga masterplan<sup>94</sup>



Figure 39 – Diagrammatic analysis of Pūkaki Papakāinga masterplan



<sup>94</sup> Reproduced with permission from designTRIBE Architects

## Co-housing Movement Internationally

Pioneered primarily in Denmark, cohousing seeks to re-establish the community and sense of belonging of traditional villages. The basic kaupapa of the cohousing movement, which has since become popular in North America, is the desire to be more connected with each other and the land, and as such is closely aligned with Māori values and aspirations.

In contrast to contemporary papakāinga, cohousing tends to place a greater emphasis on privacy, with cohousing developments more likely to have fences between dwellings. Although there are parallels between the common house, which is a feature of most cohousing developments, and the marae complex, the common house does not carry the same cultural significance, and does not carry the same requirements to accommodate cultural practices. This is particularly significant during tangihanga. For contemporary papakāinga that are not associated with a marae, the communal buildings may more closely resemble the common house typology.

Chris Scotthanson and Kelly Scotthanson, authors of *The Cohousing Handbook: Building a Place for Community* have developed a set of common characteristics or principles of cohousing, with five relating to planning and design:<sup>95</sup>

- **Participatory process** – Residents participate in the planning and design process, and are responsible for making decisions together by community consensus
- **Designs that facilitate community** – The physical design encourages a sense of community and provides opportunities for casual interaction
- **Extensive community facilities** – The presence of common areas, which are complementary to private living and areas and are designed for daily use
- **Optimum community size** – 12-36 dwellings is considered optimum
- **Purposeful separation from the car** – Cars parked away from private residences encourage community interaction, and also maintains the safety of outdoor play spaces

And a further four relating to shared activities and ongoing management:

- **Shared evening meals** – Cohousing groups often choose to share several evening meals together each week
- **Complete resident management** – The community is self-managed, including mediation and dispute resolution
- **Non-hierarchical structure** – Responsibility for decision-making is shared by the community's adults
- **Separate income sources** – Residents have their own source of income, do not derive income or revenue from the community, and pay monthly dues to cover shared costs

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<sup>95</sup> Scotthanson and Scotthanson, *The Cohousing Handbook*, 3-4.



Diagrammatic analysis of 10 cohousing precedents has been undertaken using the following categories:

- Figure-ground
- Circulation
- Shared/private space
- Green space
- Parking

### Berkeley Cohousing, Berkeley, California, U.S.A.

Figure 40 – Berkeley Cohousing site plan<sup>96</sup>

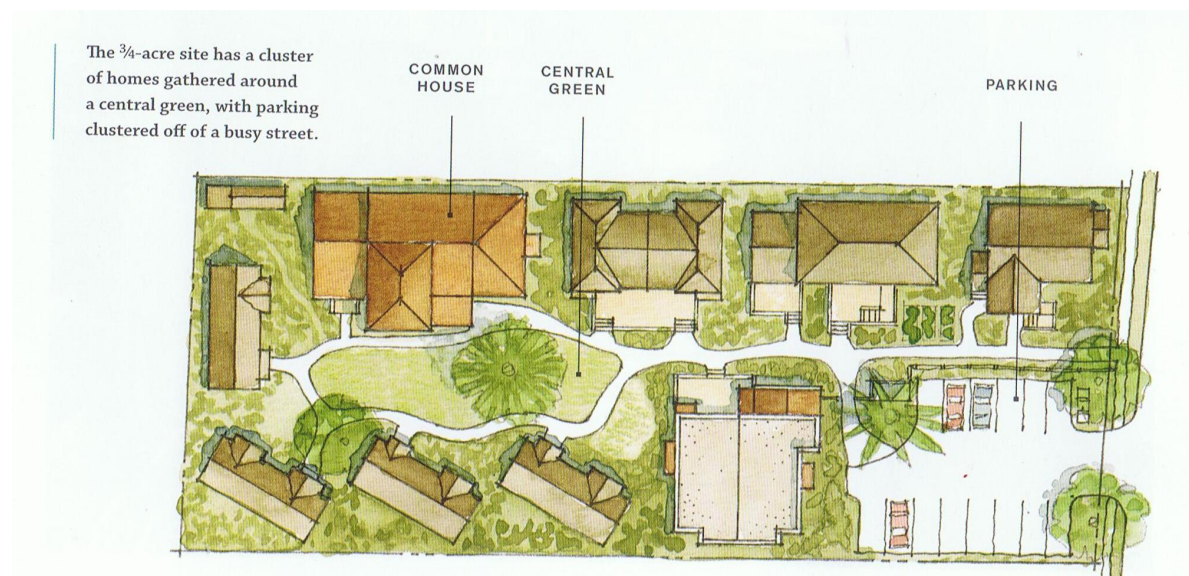
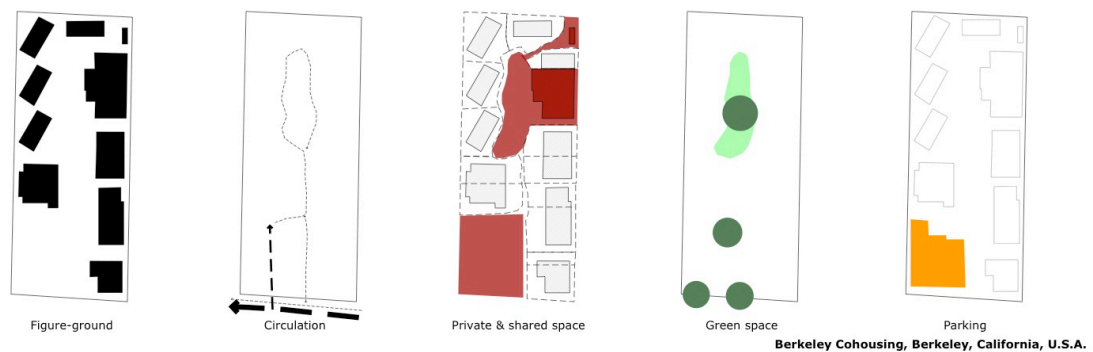


Figure 41 – Diagrammatic analysis of Berkeley Cohousing site plan



<sup>96</sup> Pinterest, <https://www.pinterest.com/pin/379991287283952826/>

## Bondebjerget, Odense, Denmark

Figure 42 – Bondebjerget Cohousing site plan.<sup>97</sup>

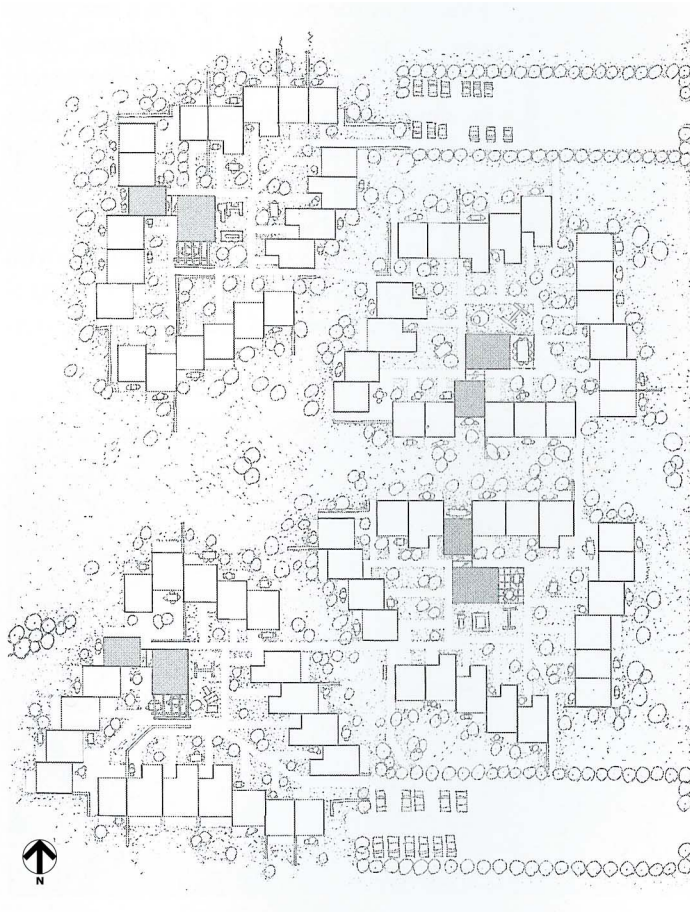
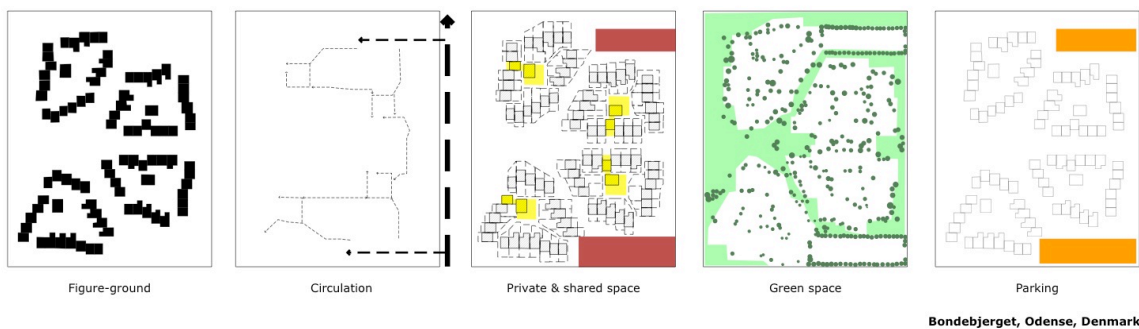


Figure 43 – Diagrammatic analysis of Bondebjerget Cohousing site plan



<sup>97</sup> McCamant et al., *Cohousing: a contemporary approach*, 123.



## Creekside Commons Gardens, Courtenay, British Columbia, Canada

Figure 44 – Creekside Commons Gardens site plan.<sup>98</sup>

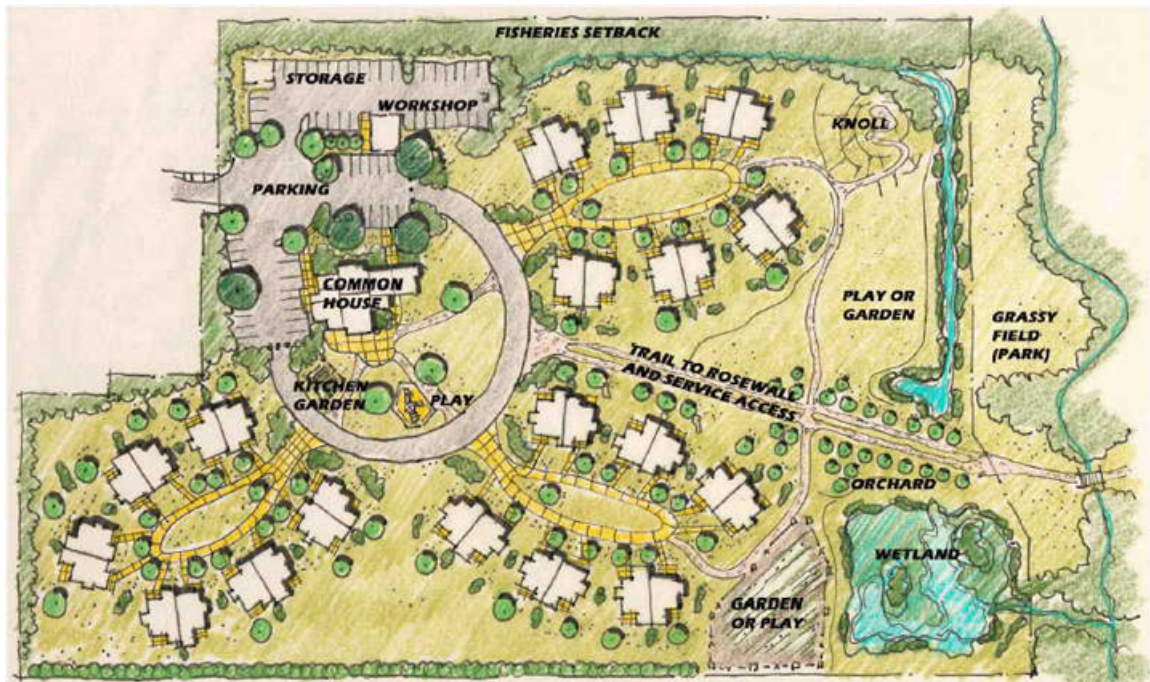
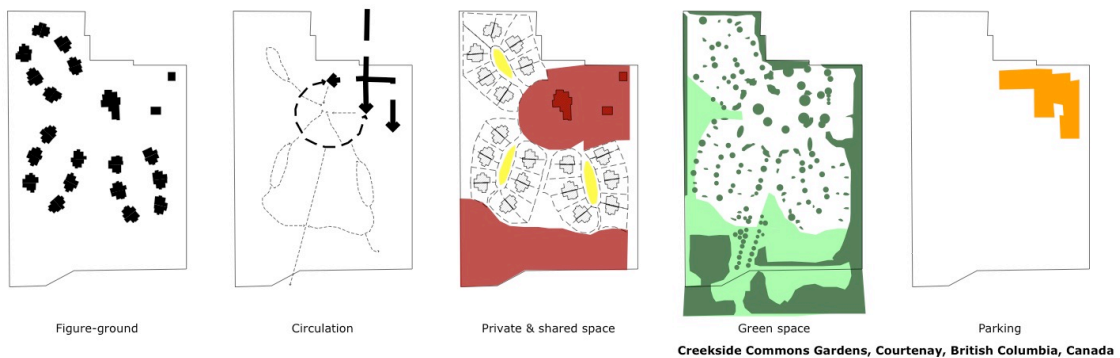


Figure 45 – Diagrammatic analysis of Creekside Commons Gardens site plan



<sup>98</sup> "Creekside Commons", *Cohousing Development Consulting*, <http://www.cohousingconsulting.ca/proj%20Cs.html>.

## Cully Grove, Portland, Oregon, U.S.A.

Figure 46 – Cully Grove site plan.<sup>99</sup>

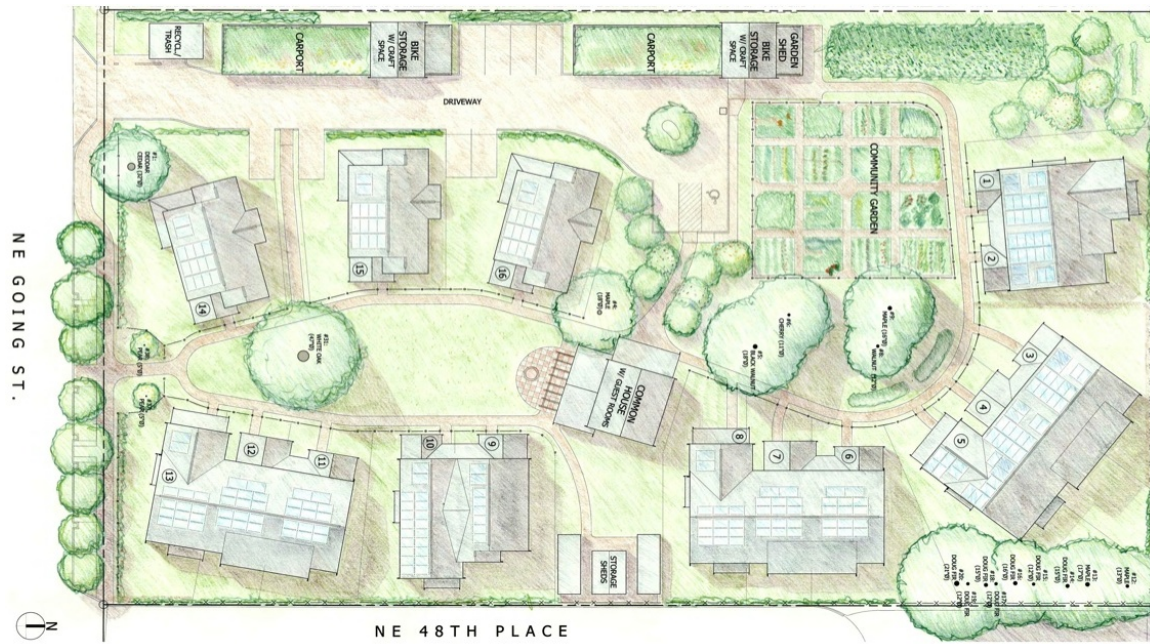
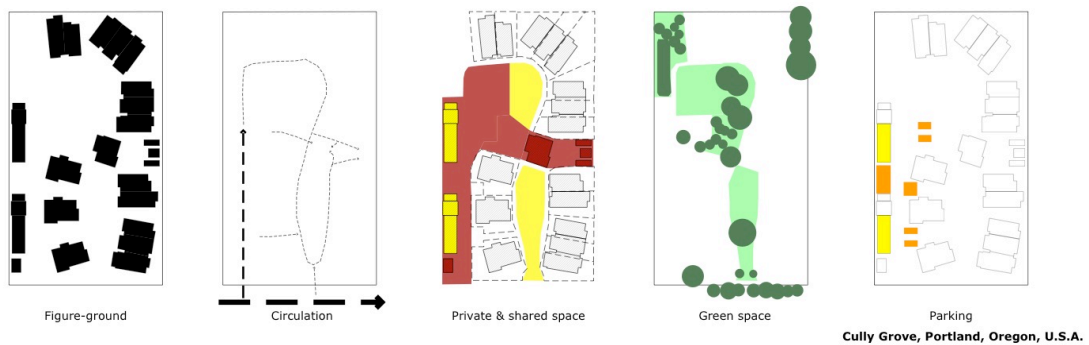


Figure 47 – Diagrammatic analysis of Cully Grove site plan



<sup>99</sup> “Full Plans and Elevation Drawings”, Cully Grove: A new multi-generational, solar-powered garden community in Northeast Portland, <http://cullygrove.org/design/unit-plans/>.

## Drejerbanken, Vissenbjerg, Denmark

Figure 48 – Drejerbanken cohousing site plan.<sup>100</sup>

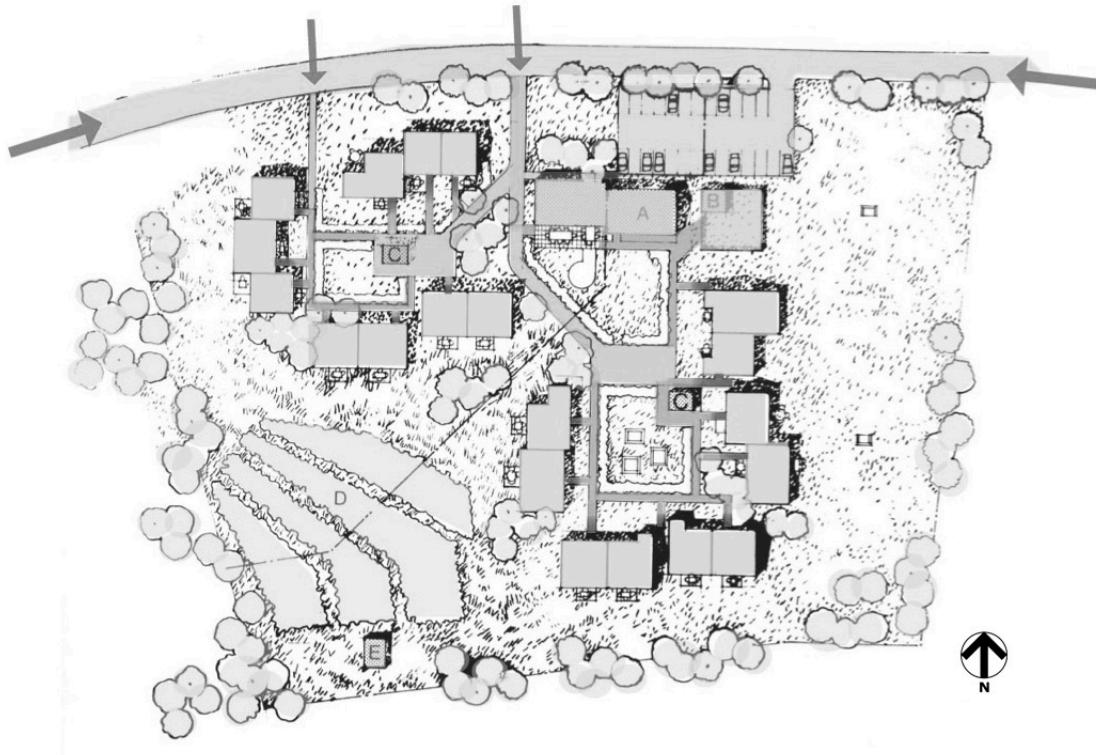


Figure 49 – Diagrammatic analysis of Drejerbanken cohousing site plan



<sup>100</sup> McCamant et al., Cohousing: a contemporary approach, 109.



## Earthsong, Rānui, Tāmaki Makaurau, N.Z.

Figure 50 – Earthsong Eco-Neighbourhood site plan.<sup>101</sup>

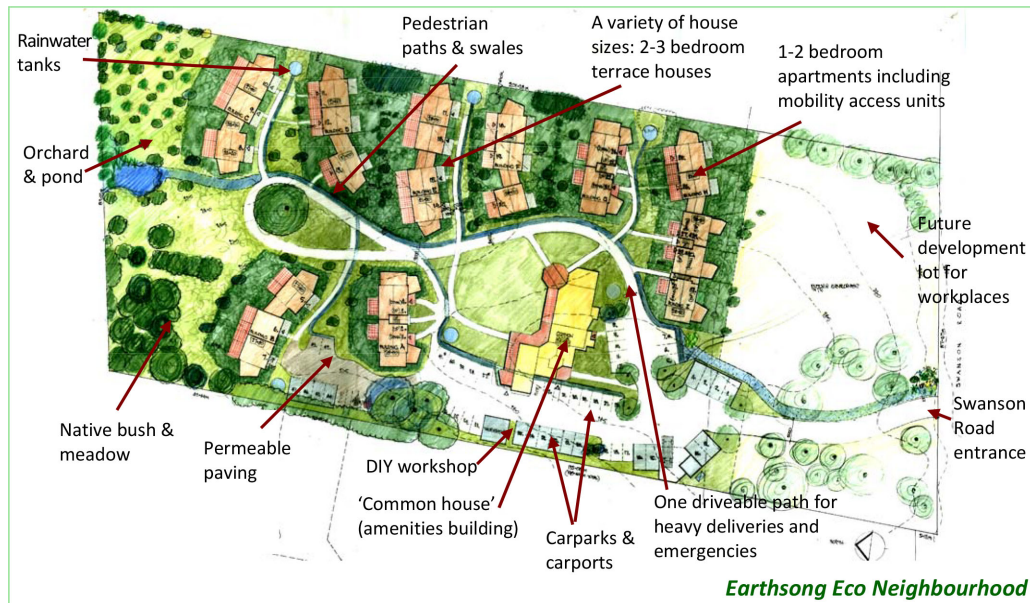
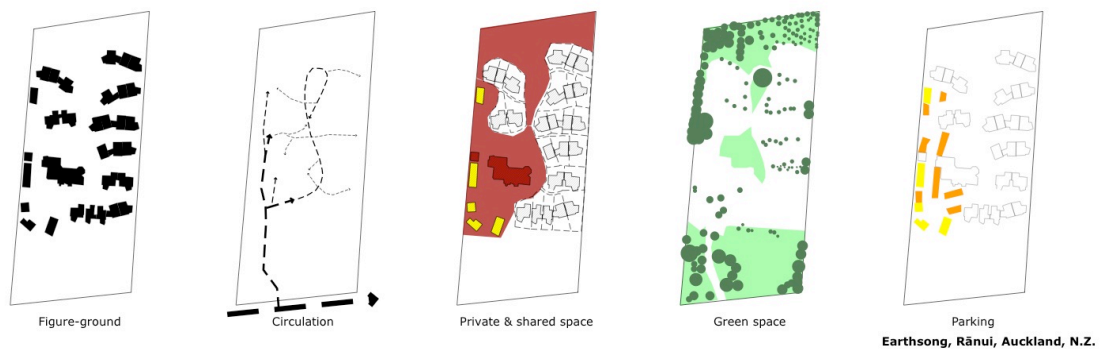


Figure 51 – Diagrammatic analysis of Earthsong Eco-Neighbourhood site plan



<sup>101</sup> "Design & development: Site", *Earthsong Eco-Neighbourhood*, <http://www.earthsong.org.nz/design/site.html>.

## Fresno Cohousing La Querencia, Clovis, California, U.S.A.

Figure 52 – Fresno cohousing site plan.<sup>102</sup>

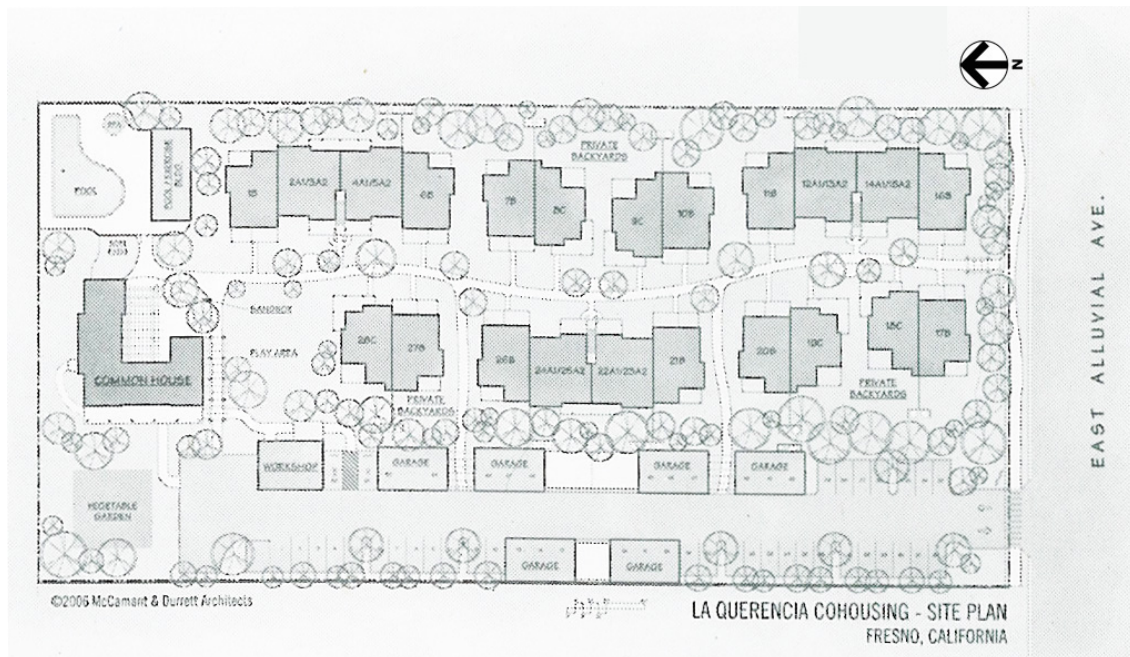
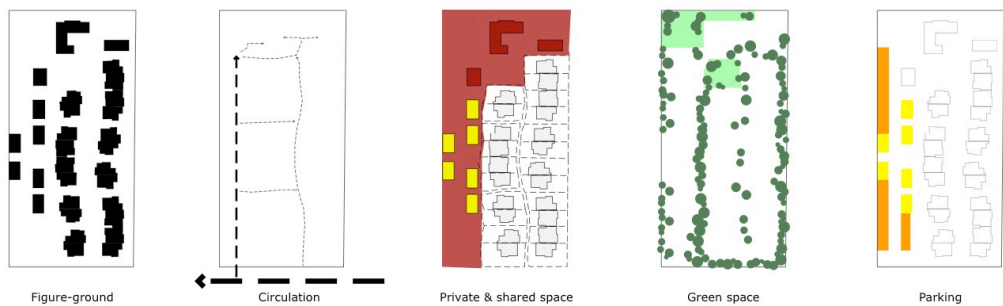


Figure 53 – Diagrammatic analysis of Fresno cohousing site plan



Fresno Cohousing La Querencia, Clovis, California, U.S.A.

<sup>102</sup> McCamant, *Creating cohousing*, 194.

## Sol og Vind (Sun & Wind), Beder, Denmark

Figure 54 – Sol og Vind site plan.<sup>103</sup>

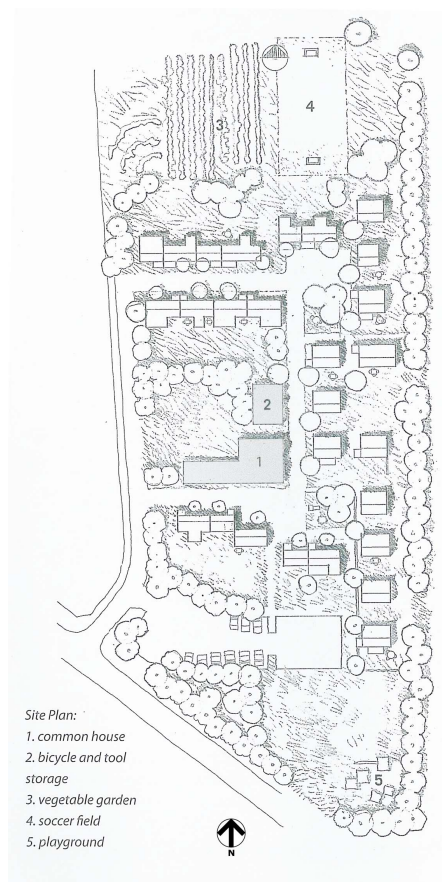
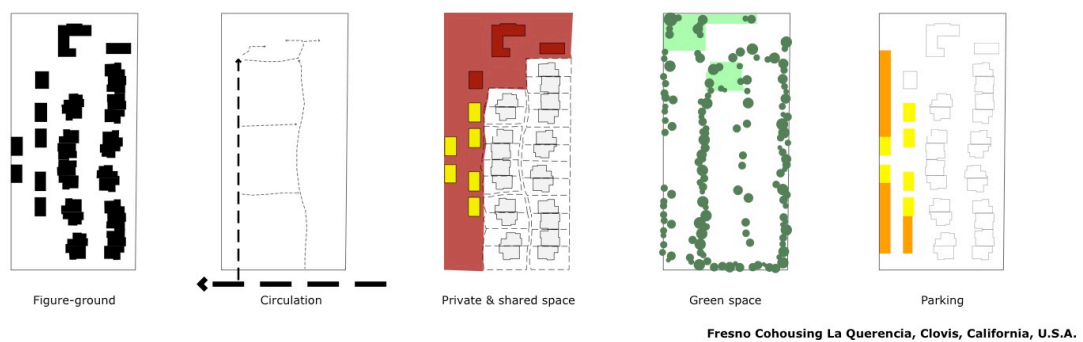


Figure 55 – Diagrammatic analysis of Sol og Vind site plan



<sup>103</sup> McCamant et al., Cohousing: a contemporary approach, 49.

## Tornevangsgarden, Birkerød, Denmark

Figure 56 – Tornevangsgarden site plan.<sup>104</sup>



Figure 57 – Diagrammatic analysis of Tornevangsgarden site plan



<sup>104</sup> McCamant et al., *Cohousing: a contemporary approach*, 101.



## Trudeslund, Birkerød, Denmark

Figure 58 – Trudesland cohousing site plan.<sup>105</sup>

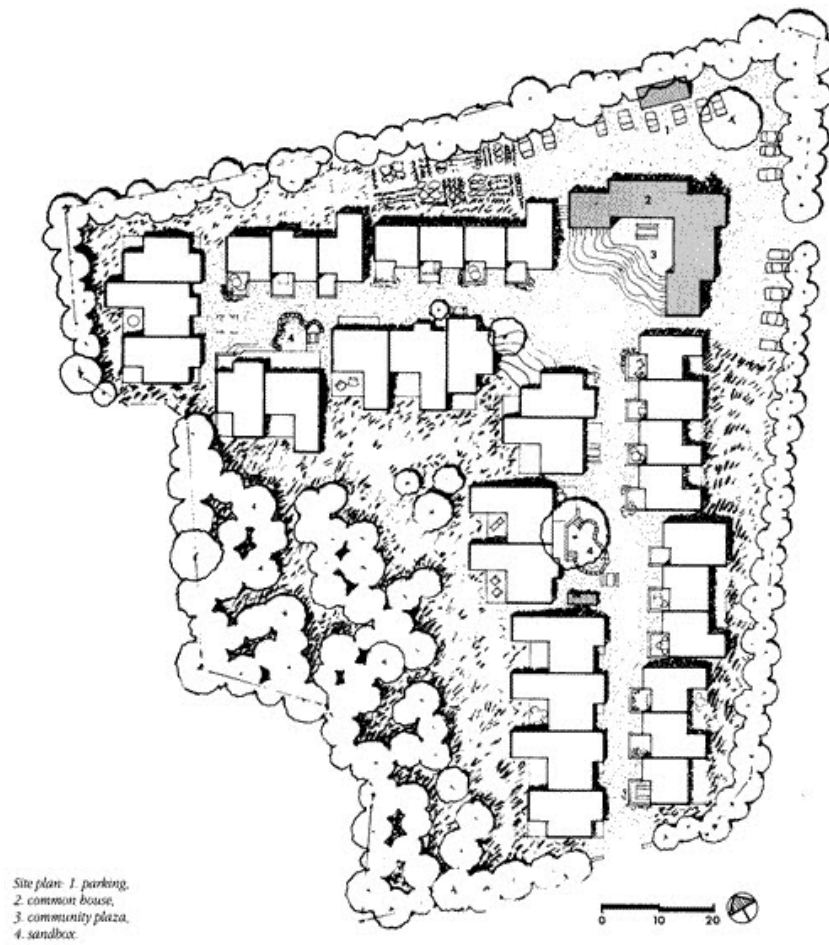
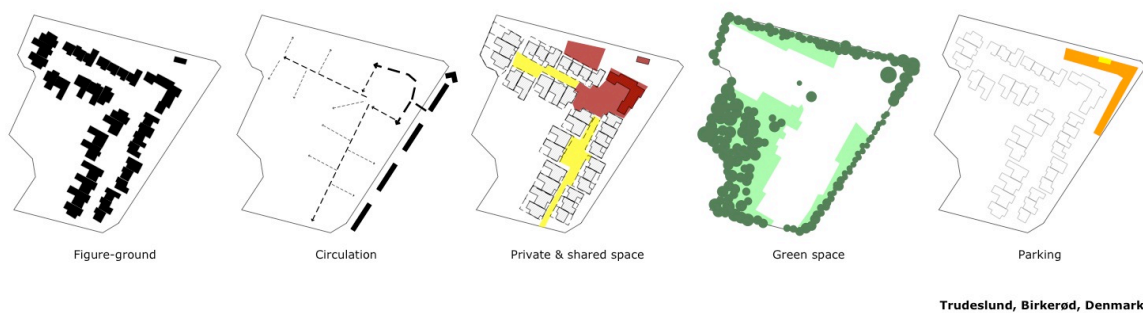


Figure 59 – Diagrammatic analysis of Trudesland cohousing site plan



<sup>105</sup> McCamant, Creating cohousing, 51.



## Summary of Findings from Precedent Analysis

These findings have been used to inform the site planning of Pehiāweri Marae Papakāinga, including the configuration of dwellings, location of communal facilities, placement of roading and pedestrian pathways, and use of landscape design to establish a hierarchy of private, shared and communal space.

### *Figure-ground*

Houses are generally stand-alone or duplex, and arranged in smaller groupings or clusters. Overall site coverage is similar to that of standard suburban subdivisions, however houses are located closer together and more space is given over to communal (rather than private) outdoor space.

### *Circulation*

Circulation is generally a hierarchy of three categories of circulation path – external roadway, main internal roadway (connecting the public access road to the carparking area), and pedestrian paths (connecting the carparking area to private homes, and private homes to the shared spaces). Some developments also contain a fourth category of internal light traffic roading (often in the form of a reinforced, wider-than-usual footpath), which can be used to transport disabled and elderly people to their homes, or in the event of an emergency. Pedestrian paths have also been used in some instances to link public pedestrian walkways (alongside the main external roadway) with the main internal pedestrian path, or to link the community with adjacent nature reserves.

### *Private and shared space*

In the vast majority of developments, there is a hierarchy of private space (with most individual dwellings having at least a small private yard or courtyard), shared space (for the use of defined clusters of houses), and common space (for the use of the whole community). This was particularly relevant to the larger developments, with the establishment of spatial hierarchies enabling clusters to develop a more intimate sense of community and identity, whilst also retaining opportunities to interact with the wider group. In some developments, communal buildings facilities operate as anchor points, distributed across shared spaces (rather than clustered in one place) to prevent the co-opting of these spaces by one family or cluster group. There is also generally less privacy in modern papakāinga when compared with cohousing, and there are often no fences between dwellings.

### *Vegetation*

Overall, vegetation is used (rather than fencing), to articulate boundaries between private/shared/communal zones, and to create areas of defensible space. Many of the developments included a balance between cultivated green space, such as gardens and lawns, and uncultivated green space, such as nature reserves, forested areas, etc.

### *Parking*

In most of the precedents analysed, parking was located on the periphery of the site, and more often in communal parking lots or covered carparks than in private garages attached to dwellings. The rationale behind this was to enhance the safety for children, to minimise traffic noise within the development, and to encourage people to interact with one other. This also results in a substantial reduction of paved areas (and associated costs).

## Project Development

This project has been approached from the philosophical position that design should reflect the culture, history, and aspirations of the community, and that architecture should be responsive to place, and the people of that place. Therefore, the project development section begins by outlining kōrero relating to the project site (whenua), followed by the genealogy and cultural identity of the people of that land (tangata whenua), before moving on to the masterplan and design development process.

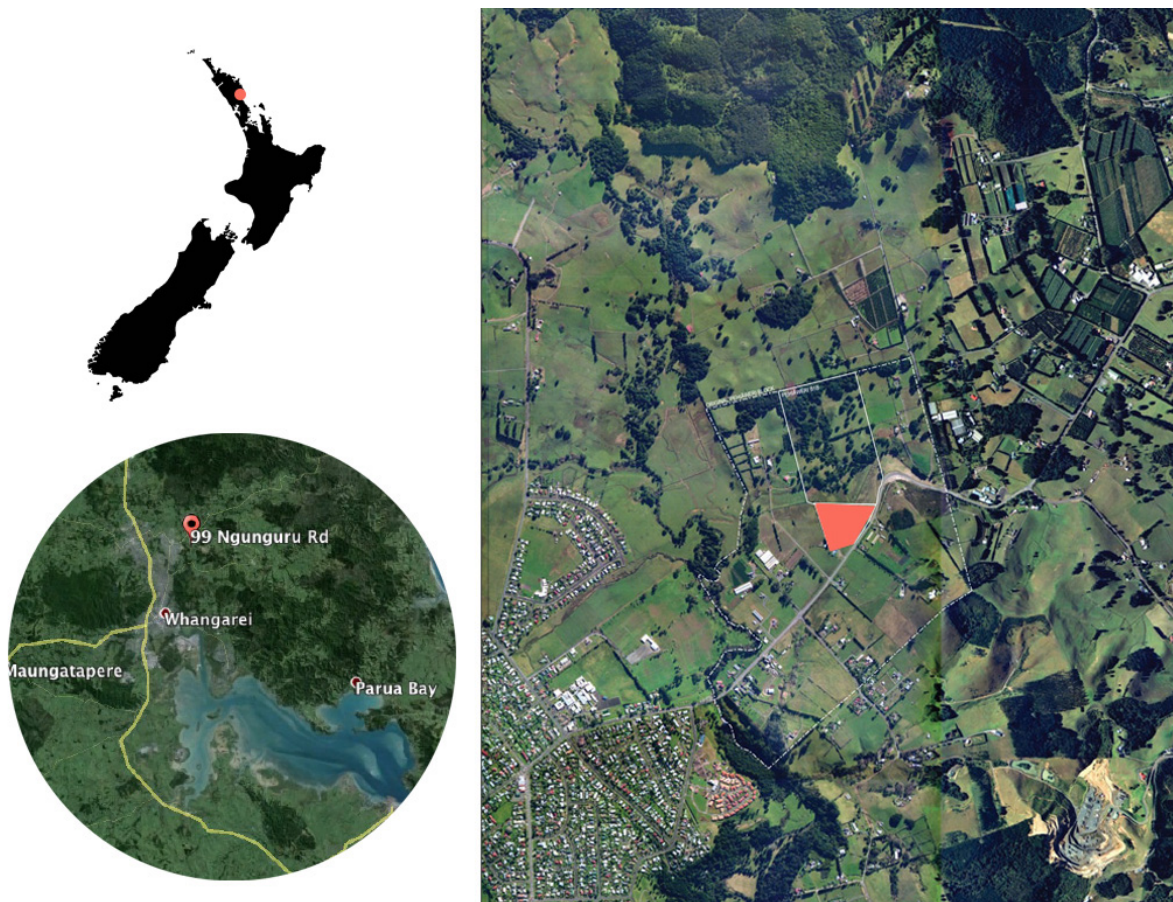
### Whatungarongaro te tangata, toitū te whenua

*As man disappears from sight, the land remains*

This section describes the history of the land, including key cultural narratives and the development history of the marae, followed by a brief description of the formal site analysis undertaken.

The project site, Pehiāweri Marae, is located at 99 Ngunguru Rd, in Glenbervie, Whāngarei, just past Otuihau (Whāngarei Falls).

**Figure 60 – Site location**



## Kōrero tuku iho

### *Pehiāweri: A place of healing*

Pehiāweri has a long history as a place of healing. After the battle of Ruapekapeka in 1846, Te Ruki Kawiti travelled to Pehiāweri to return the bodies of deceased whānau, and to heal the bodies of his wounded soldiers and allies. It is here that Kawiti had his moemoeā, and made his famous final prophesy, delivered atop Pukepoto, a pā site located approximately 2km north-east of Pehiāweri Marae.

E te whānau, i te pakanga ahau ki te Atua i te pō, heoi kīhai ahau i mate. Nā reira, takahia te riri ki raro i o koutou waewae. Kia ū ki te whakapono, he poai pākehā koutou i muri nei. Waiho kia kakati te namu i te whārangi o te pukapuka, hei konei ka tahuri atu ai. Kei takahia e koutou, ngā papa pounamu a o koutou tūpuna e takoto nei. Titiro atu ki ngā taumata o te moana.

Kawiti is said to have died there. The English translation of this ōhākī:

My illustrious warriors, I fought with God last night, but I did not die. Trample anger beneath your feet, hold fast to your beliefs. Learn the ways of the Pakeha. You must wait until the sandfly nips the pages of the book (the Treaty) Only then will you stand to challenge what has happened. Lest you desecrate the sacred signatures [marks] of your ancestors placed upon the book. Look to the horizons of the sea (the transformation of the future)...<sup>106</sup>

Our tūpuna Kauta Hemi (wife of Pirini Kake, and my great-grandmother) was a renowned tohunga and matakite, who had both the gift of healing, and the ability to prophesize the future. Te Kauta was said to have smoked a pipe, and wore a moko kauae. When she slept, she would sing out prophecies, which people would write down. She also healed people, both Māori and Pākehā alike, in the healing waters of Pehiāweri.

One kōrero as to the origins of the name ‘Pehiāweri’ is in connection to this tūpuna, as was told by Uncle Wereta (Ben) Kake, and relayed to me by Peneamine Werohia at a wānanga at Pehiāweri Marae in June 2015. Pehiāweri originates from two words – pēhi (to suppress or crush), and weri (the centipede). One day a tohunga from outside the rohe came to challenge the mana of our tūpuna, Kauta Hemi. Whilst this tohunga was in the area, they came to Pehiāweri, ka ngāhoru te pari ki runga I taua tohunga. There was a slip, and the bank collapsed on that tohunga and was crushed. Ka puta ngā weri. So hence the kōrero, Pehiāweri. Since that time, the weri has been a kaitiaki for the people of Pehiāweri.

The church and urupā were both in use during Kauta’s lifetime. However, because she was a matakite of immense power, when she died she was buried across the road and outside of the urupā. The kōrero regarding this tūpuna is a significant part of our history as the people of Pehiāweri. However, it is likely the name Pehiāweri has an earlier origin, as Kauta Hemi was most likely born in the early 1860s, around the time the Pehiāweri block was issued to Kake Peru and some twenty years after the battle of Ruapekapeka.

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<sup>106</sup> Kene Hine Te Uira Martin, “Biography of Te Ruki Kawiti”, in *The People of Many Peaks: The Māori biographies from the Dictionary of New Zealand Biography*, Vol 1, 1769 - 1869. (Wellington: Bridget Williams Books, 1990), 36.



### *History of the Pehiāweri Block*

In August 1865, 3 years after the passing of the Native Lands Act, the Pehiāweri Block came before the Native Land Court and the title to the 289-acre block was issued in the name of Ngāti Hau rangatira Kake Peru with no restrictions. This block included Otuihau (Whāngarei Falls), which is now subject to the WAI 1040 claim. The boundaries of the original Pehiāweri block are as follows – “commencing on the Mangakino at a place called Otuihau and following Mangakino to Kopura, and on to Kanihau, thence to Wharauroa, Te Kumeti, Otaiha, Ngarangipakura and on to Otuihau the point of commencement”.<sup>107</sup>

By 1883, only 110 acres of the original Pehiāweri block remained. It was partitioned again in 1915 and a further 27 acres (Pehiāweri A) was sold in 1925.<sup>108</sup> Today, approximately 48 acres remains of the original 289-acre block and has been retained by the Kake whānau under two separate titles, with 40 acres under Māori title (Pehiāweri B1B), and an additional 8 acres (Pehiāweri Marae) under general title.

**Figure 61 – Outline of the original 289-acre block, and remaining Pehiāweri Marae & B1B blocks**



<sup>107</sup> Hana Maxwell, *Te Huritau mo te Kotahi rau tau o te Whare Karakia i Pehiāweri 1888-1988: A Centennial Celebration St John's Church Pehiāweri (Whāngarei: N.Z.: Pehiāweri Maori Church and Marae Society Incorporated, 1988), 9.*

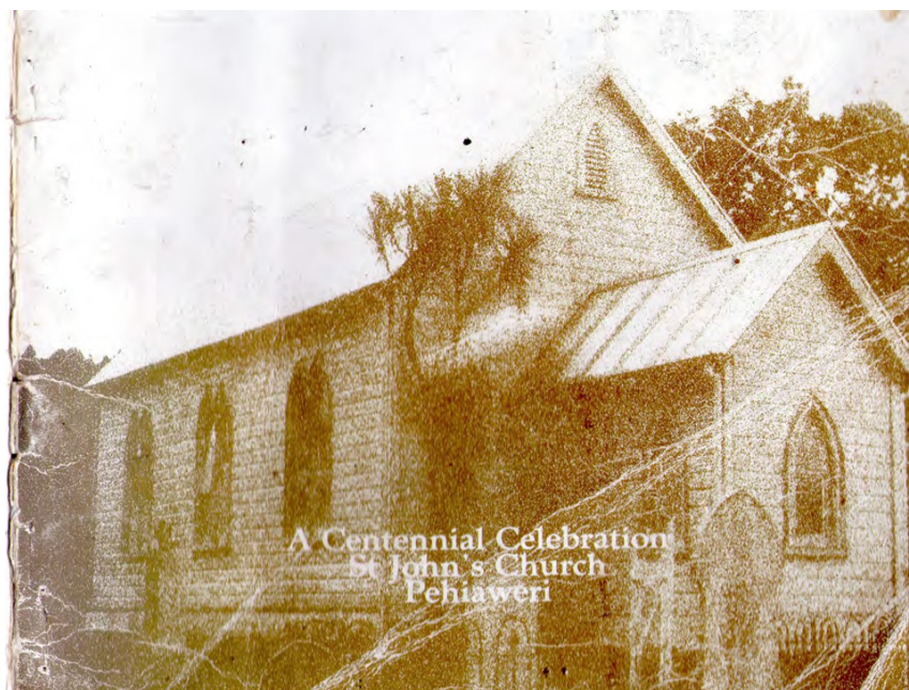
<sup>108</sup> Hana Maxwell, *Brief of Evidence.*

### *Establishment of the Anglican Church*

On the 16<sup>th</sup> of January 1877, 8 acres of land were set-aside for the purposes of establishing a Church, vicarage, and burial grounds. In 1888 St John's Māori Anglican Church Pehiāweri was built, with the vicarage, urupā and oak trees to follow soon after. On March 9<sup>th</sup> 1932, Pehiāweri was vested in the General Trust Board of the Diocese of Auckland, by vesting order of the Native Land Court, and subsequently converted to General Title. In the 1970s, with a declining roll of parishioner's (due in part to the construction of the much larger Christ Church in Whāngarei city centre in 1963), the Anglican Church made the decision to divest Pehiāweri.

Our kaumātua Wiremu Pirini Kake applied for the return of the 8 acres held in Trust by the Anglican diocese of Auckland in the early 1970s, and on 8<sup>th</sup> June 1973 Pehiāweri Māori Church and Mārae Incorporated Society was established for the purposes of maintaining our whenua, the church and vicarage buildings, and for the establishment of a marae. In 1981, the Pehiāweri Maori Church and Marae Site Vesting Act 1981 was passed through a private act of parliament, and our land was transferred from the Anglican Church back to the people of Pehiāweri.<sup>109</sup> Four people were closely involved in the legal transfer – Hon. Matiu Rata, Mr. Winston Peters, Dr. Bruce Gregory, and Mrs. Honaria Gray, Barrister and Solicitor.<sup>110</sup> The name of our whare tūpuna was given by Uncle Wiri Kake in reference to this historic event, where the voices of the people were heard, and our marae was returned to us: 'Te Reo o Te Iwi' – the voice of the people.

**Figure 62 – St John's Māori Church, Pehiāweri.<sup>111</sup>**



<sup>109</sup> *Pehiāweri Māori Church and Marae Site Vesting Act 1981*, <http://www.legislation.govt.nz/act/private/1981/0002/latest/DLM110054.html>

<sup>110</sup> Maxwell, *Te Huritau mo te Kotahi rau tau*, 11.

<sup>111</sup> Maxwell, *Te Huritau mo te Kotahi rau tau*, front cover.



### *Establishment of Pehiāweri Marae*

In 1983, plans were drawn up by architect Vincenzo Terrini for a marae complex at Pehiāweri, and on the 12th of March 1984, Whāngarei County Council approved the application for consent to erect marae buildings at Pehiāweri. Construction of stage one commenced in the mid-1980s, and included the carparking and the ablutions block. This was followed by the wharehui 'Te reo o te Iwi' in stage two (opened January 20th 1991), and the wharekai 'Te reo o te ora' in stage three. Uncle Wereta (Ben) Kake, son of Mauhaere Kake and a qualified builder, led the building project and supervised the mostly volunteer labour force of whānau and community members.

**Figure 63 – Wereta (Ben) Kake supervising Whareiti construction.**<sup>112</sup>



**Figure 64 – Kaumātua Wiremu Pirini Kake, in front of the wharehui under construction.**<sup>113</sup>



<sup>112</sup> "New marae slowly takes shape on city outskirts", *Northern Advocate – Weekend Report*, 9 May 1986.

<sup>113</sup> Moana Kake, personal photograph.

**Figure 65 – The opening of the Wharehui, January 20th 1991.<sup>114</sup>**



Unfortunately, the whare karakia and vicarage house (manse) had fallen into disrepair by the early 1990s. After a long period of fundraising, a restoration project commenced in 2012; the manse was renovated as an administration block and re-opened the following year; and on December 27<sup>th</sup> 2014, the whare karakia was re-opened and re-dedicated as a non-denominational church.

**Figure 66 – The re-dedication of the Whare Karakia at Pehiāweri Marae.<sup>115</sup>**



<sup>114</sup> Moana Kake, personal photograph

<sup>115</sup> John Stone, photographer, "Preserving a snapshot of history", *Northern Advocate*, 29 December 2014, [http://www.nzherald.co.nz/northern-advocate/photos/news/image.cfm?c\\_id=1503443&gal\\_cid=1503443&gallery\\_id=147423#17881558](http://www.nzherald.co.nz/northern-advocate/photos/news/image.cfm?c_id=1503443&gal_cid=1503443&gallery_id=147423#17881558).



Today, Pehiāweri Marae is one of the most active and well-utilised marae in Northland, and is used extensively by our whānau and the wider Whāngarei and Northland community. The marae has an award-winning kapa haka group, Hātea, weekly singing club Waiata Joy, a weekly gardening club, and a range of community courses (including raranga, sustainable rural development and trades training). Pehiāweri Marae's community partners include Tikipunga High School, Northtec, Department of Corrections, Te Whare Wānanga o Tāmaki Makaurau (University of Auckland), Te Whare Wānanga o Awanuiārangi, Volunteering Whāngarei, and Hospice Mid-Northland. Pehiāweri Marae has built a reputation for being inclusive of all people, and plays a significant role in the wider community of Whāngarei.

**Figure 67 – Pehiāweri Marae in the Northern Advocate**<sup>116</sup>



## Site Inventory and Analysis

Pehiāweri Marae is located in a rural setting, just beyond the urban boundary (Tikipunga), however this is predicted to change in future, with Whāngarei District Council's 50 year growth strategy placing Pehiāweri in the centre of Tikipunga (one of five future urban villages).<sup>117</sup> Pehiāweri is also the closest marae to town, apart from Terenga Paraoa Marae (located in central Whāngarei).

The site has the potential for good neighbourhood amenity, as proximity-wise it is within walking distance of shops, schools and recreational facilities. However the section of Ngunguru Rd between Pehiāweri Marae and Kiripaka Rd is unsafe in its current condition, and would require the construction of a pedestrian footpath for papakāinga residents to experience the benefits of local amenity within the Tikipunga neighbourhood.

Inventory and analysis of the site's physical characteristics has been undertaken (figure 70), and recommendations made as to the location of housing, and other activities, such as agriculture/horticulture, and conservation (figure 71).

<sup>116</sup> Mikaela Collins, "Marae reaches out to all", *Northern Advocate*, 25 April 2015.

<sup>117</sup> Whāngarei District Council, *Whāngarei District Growth Strategy: Sustainable Futures 30/50* (Whāngarei, N.Z.: Whāngarei District Council, 2015), 159, <http://www.wdc.govt.nz/PlansPoliciesandBylaws/Plans/SustainableFutures/Final-Strategy/Pages/default.aspx>.



Figure 68 – Site Location - City

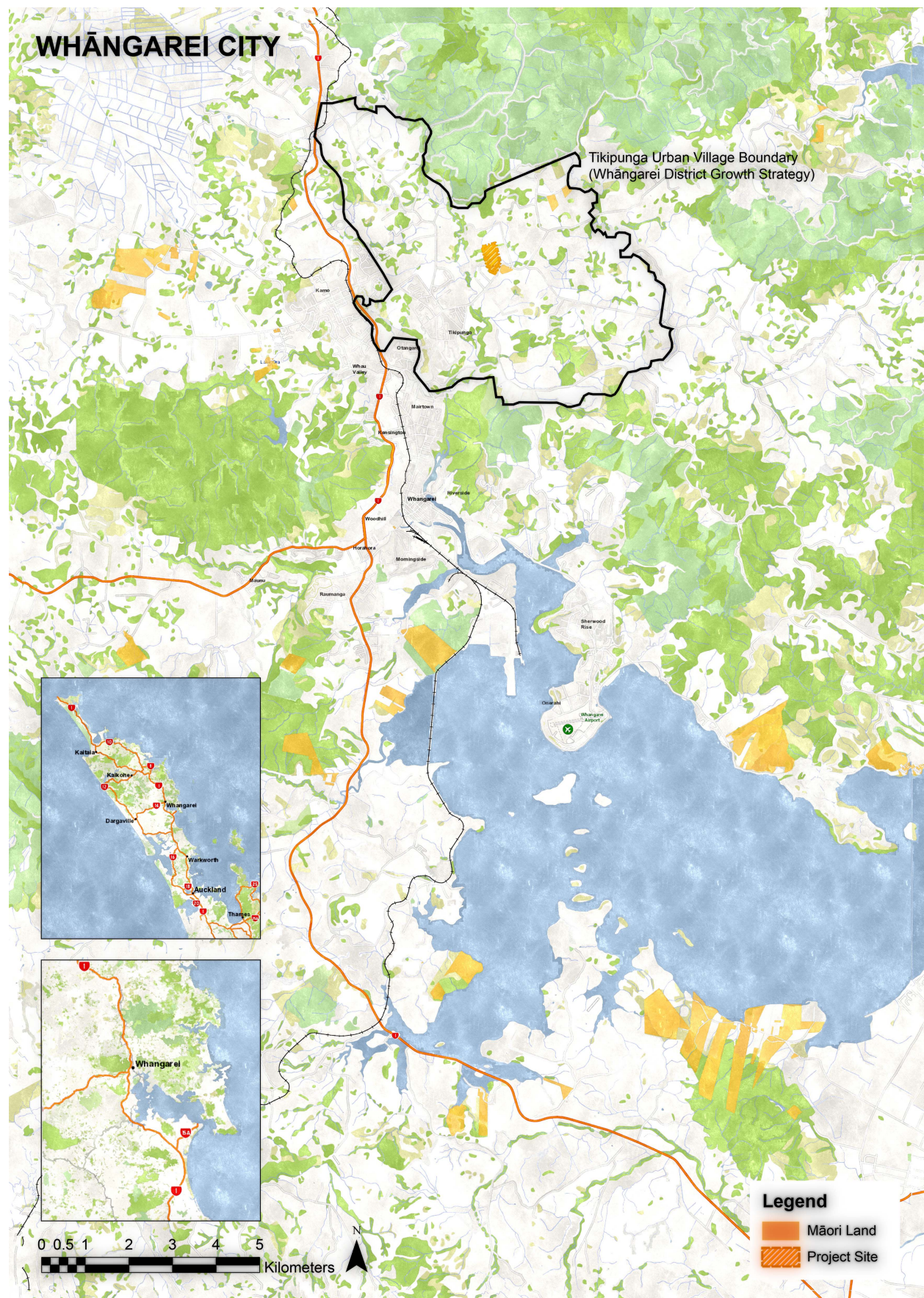




Figure 69 – Site Location - Neighbourhood





**Figure 70 – Site inventory and analysis diagrams**

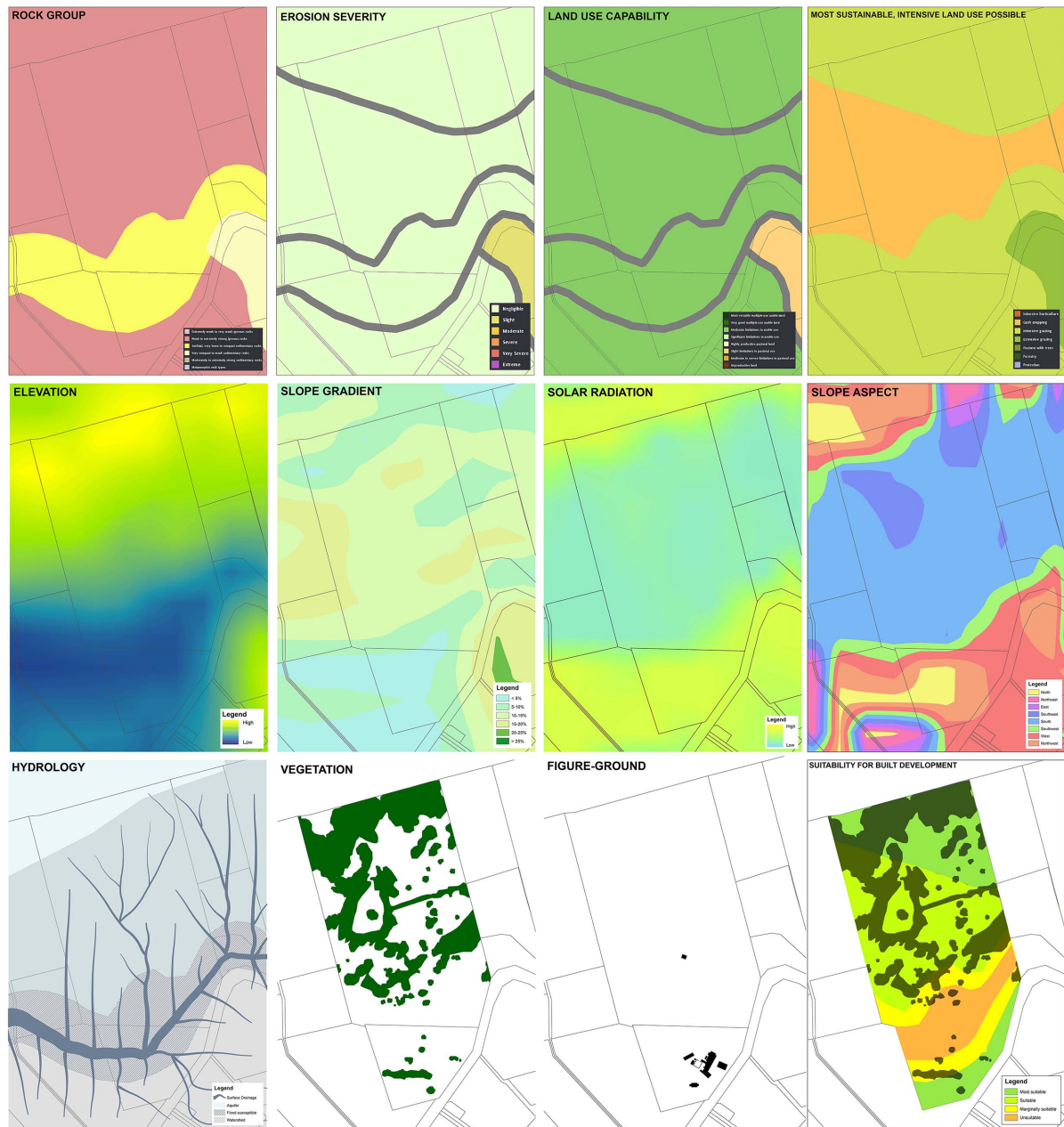
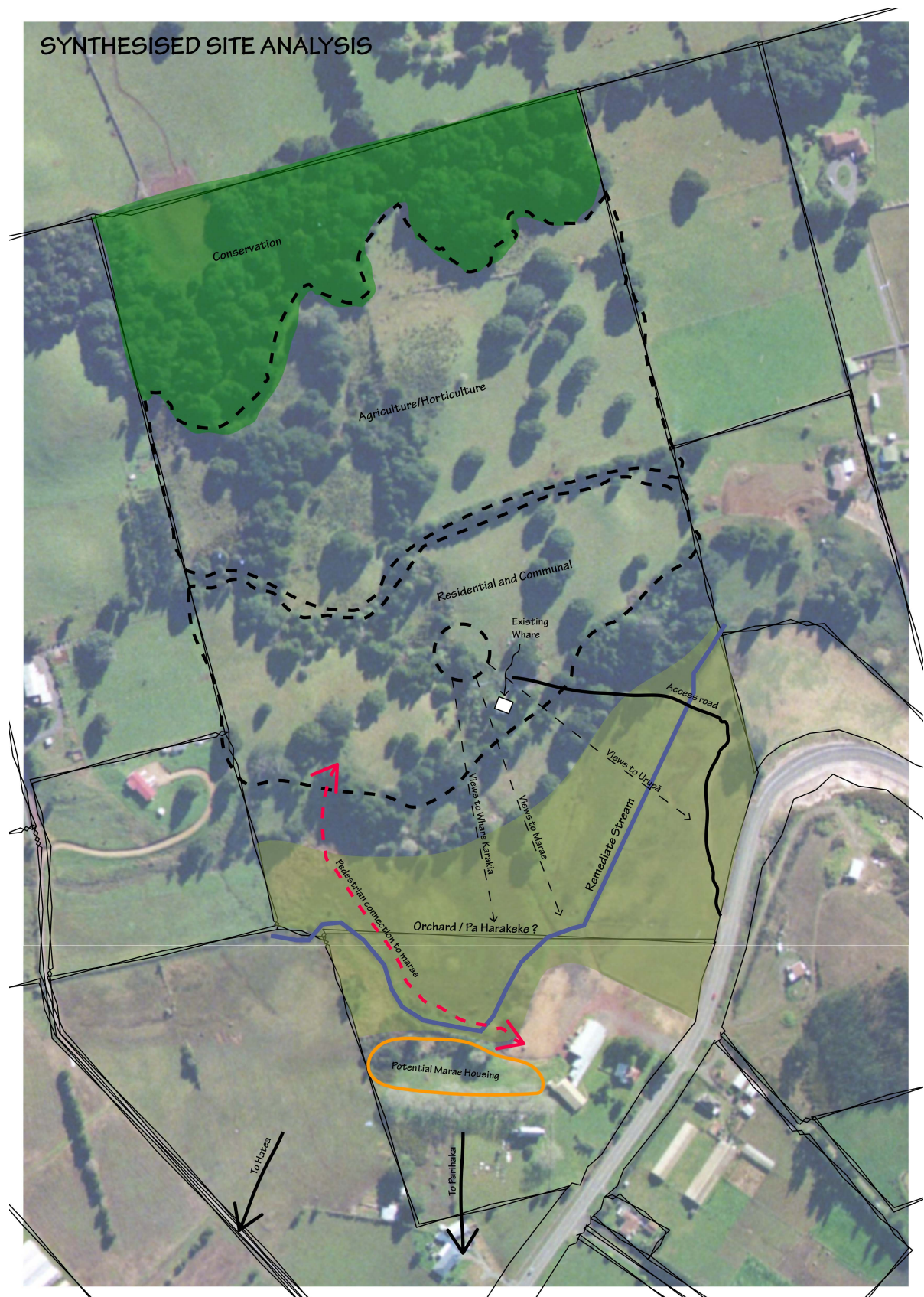


Figure 71 – Synthesised site analysis - recommended zones



## He aha mea nui o te Ao? He tangata, he tangata, he tangata

*What is the most important thing in the world? It is people, it is people, it is people*

This section outlines the whakapapa of the people of Pehiāweri Marae, including our place within Ngāti Hau and Ngāpuhi-nui-tonu, followed by the aspirations of the people of Pehiāweri Marae for papakāinga development.

### Whakapapa

The people of Pehiāweri all belong to the Ngāti Hau hapū of Ngāpuhi. The name Ngāti Hau comes from our common ancestor, our tūpuna Hautakowera. Ngāti Hau originate from Omanaia in the Hokianga. Hana Maxwell recalled the story of the shift from the Hokianga in her thesis “Nga Maumahara: Memory of Loss”, as Ranginui Maihi relayed it to her at a wānanga at Tauwhara Marae, Waimate North in 1980. According to Maihi,<sup>118</sup> Hautakowera had two sons, the youngest of which had a disagreement with his elder brother and left Omanaia. The younger brother, Kahukurī, finally settled on lands between Kawakawa and Whāngarei. The descendants of Kahukurī became Ngāti Hau ki Whāngarei, and “acquired lands once occupied by Ngaitahuhu iwi through conquest, occupation, gift and marriage”.<sup>119</sup>

#### Ngāti Hau ki Whāngarei

Ko Parihaka ratau ko Huruiki ko Ruapekapeka ngā maunga  
Ko Hātea ratau ko Whakapara ko Ngaruawāhine ngā awa  
Ko Ngātokitawhaorua te waka  
Ko Ngāpuhi te iwi  
Ko Ngāti Hau te hapū  
Ko Pehiāweri ratau ko Whakapara ko Akerama ko Maruata ngā marae

#### Ngāti Hau ki Omanaia

Ko Ngātokitawhaorua te waka  
Ko Hokianga Whakapau Karakia te moana  
Ko Ngapukehaua me Pukehuia ngā maunga  
Ko Te Piiti te Marae  
Ko Omanaia te kāinga  
Ko Ngāti Hau me Ngātu Kaharau ngā hapū.<sup>120</sup>

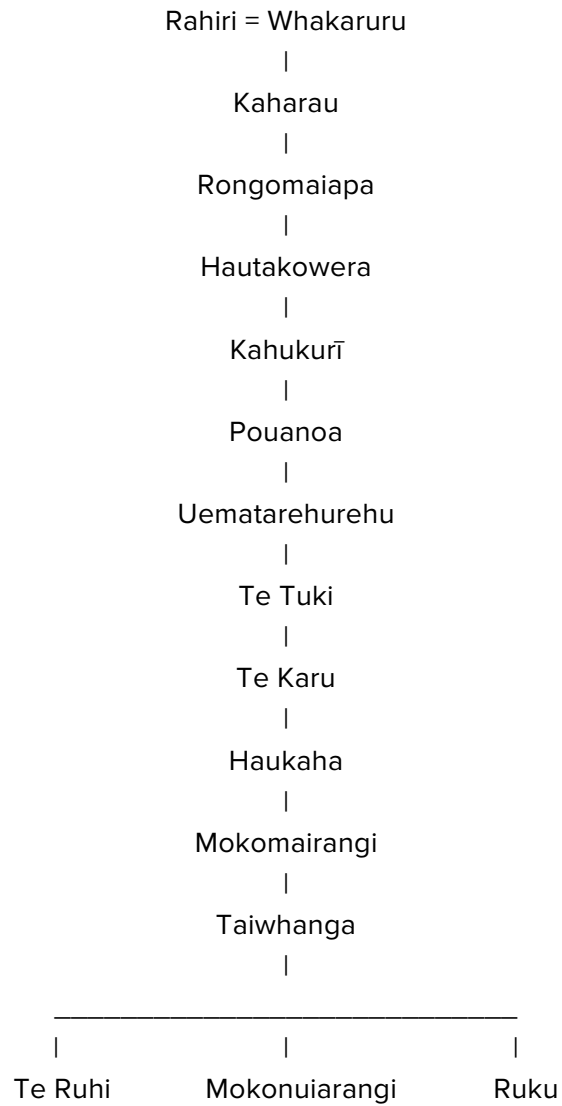
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<sup>118</sup> A well-respected kaumātua and contemporary of Sir James Henare, Hohepa Toki Pangari, Tawai Kawiti, Hone Heihei and Taupuhi Eruera

<sup>119</sup> Maxwell, “Nga Maumahara”, 21.

<sup>120</sup> Ibid.

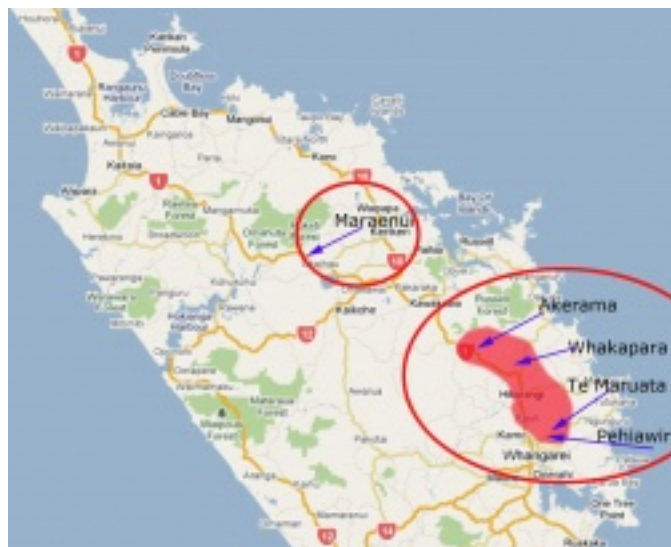
The whakapapa for Ngāti Hau ki Whāngarei (from Rahiri, the eponymous ancestor of Ngāpuhi) is as follows:





The five marae of Ngāti Hau are Maraenui, Akerama, Whakapara, Te Maruata and Pehiāweri.

**Figure 72 – The five marae of Ngāti Hau.**<sup>121</sup>



**Maraenui** is located in the Waihou Valley just out of Okaihau, on the customary lands of Ngāti Hau. Maraenui is designated as a future Ngāti Hau marae, and was gifted by Ani Kaaro Hohaia, granddaughter of Patuone.<sup>122</sup>

**Akerama** is located between Towai and Hukerenui. Buildings include the wharehui tawhito Ruapekapeka, the wharehui hou Huiarau, the wharekai Rangi-pini-ngauru, whareiti, tomokanga and office block. Akerama is also very close to Ruapekapeka Pā.

**Whakapara** is located between Hukerenui and Hikurangi. The people of Whakapara also whakapapa to Ngāti Hao through the tūpuna Patuone. Buildings include the wharehui Te Ihi o Nehua, tomokanga Te Whei Ao, and the new wharekai Te Tawaka. Other buildings include the garage, work shed and the whareiti. Sadly the kōkiri, named Te Aranga Ake, burnt down shortly before the opening of the new wharekai in May 2015.

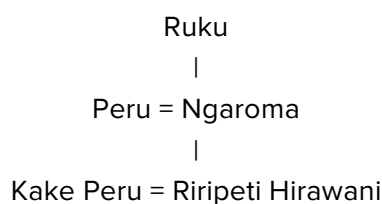
**Te Maruata** is located at Edgington Road, Glenbervie. The only building currently on the site is a shed, which is used for whānau meetings. In 2011, pouwhenua were erected at Maruata in recognition of our tūpuna, and to encourage Ngāti Hau to reclaim our hapū knowledge. Maruata is also the papakāinga of the descendants of Mauhaere Kake (see whakapapa below).

**Pehiāweri** is located at Glenbervie, just past Otuihau (Whāngarei Falls). The people of Pehiāweri also whakapapa to Ngāti Hine and Te Parawhau hapū. Buildings include the wharehui Te Reo o te Iwi, the wharekai Te Reo o te Ora, whare karakia, manse (vicarage house), whareiti, greenhouse, potting shed, and a partially built whare waka.

The whakapapa of the people of Pehiāweri Marae is as follows:

<sup>121</sup> “The Five Ngāti Hau Marae”, *Ngāti Hau Trust*, last updated 19 October 2014, <http://www.naumaipalace.com/site/ngati-hau/home/page/1263/5-marae/>

<sup>122</sup> Maxwell, Nga Maumahara, 24.



The waiata for our marae conveys aspects of our pepeha that are common to all who connect to Pehiāweri Marae through whakapapa:

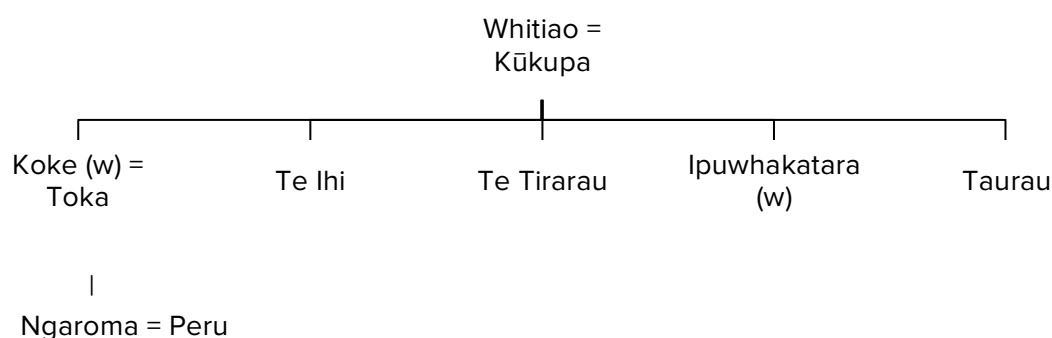
#### Parihaka Te Maunga

Parihaka te maunga  
 Hātea te awa  
 Pehiāweri te marae tapu e  
 Ngāti Hau ko te hapū  
 Ngāpuhi te iwi  
 Tihei wa mauri ora e

Whakapono  
 Tumanako  
 Me te aroha e  
 Ko te mea nui o enei  
 Ko te aroha  
 Puritia ki enei taonga e

Although Ngāti Hau as a hapū originates from Omanaia in the Hokianga, the people of Pehiāweri hold mana whenua over the Whāngarei region through our tūpuna Ngaroma (also know as Te Roma), from the Te Parawhau hapū. Ngaroma was the daughter of Koke, a sister to Te Tirarau Kūkupa and daughter of Whitiao and Kūkupa. She belonged to Te Parawhau hapū of Whāngarei, and also had whakapapa links to Ngai Tahu and Te Uri-oroi, and Te Uri-o-Hau of Ngāti Whatua.<sup>123</sup>

Her brother Te Tirarau Kūkupa was a significant rangatira in the Whāngarei region, and was the Paramount Chief of Te Parawhau at the time of the signing of Te Tiriti.



<sup>123</sup> Steven Oliver, “Te Tirarau Kūkupa”, in *Dictionary of New Zealand Biography* (Te Ara – the Encyclopedia of New Zealand, 2012), <http://www.TeAra.govt.nz/en/biographies/2t31/te-tirarau-kukupa>.

Ngāti Hau also has significant relationships with coastal hapū Ngāti Wai. The whakataukī *Ngāti Wai ki te moana, Ngāti Hau ki te uta* describes our tribal boundaries and our close inter-relationship with Ngāti Wai. These close relationships were maintained through adherence to cultural protocols and sometimes through strategic marriages, and were essential for maintaining access to mahinga kai or food gathering areas.

The Kake whānau all descend from Kake Peru raua ko Riripeti Hirawani nō Waikato-Tainui.

Ngā Tamariki a Kake Peru raua ko Riripeti Hirawani

Riwi Kake (T) N.I.

Keremeneta (Keremete) Kake (T)

Hemi Kake (T) N.I.

Rihi Kake (W)

Maraea Kake (W)

Pirini Kake (T)

Today, the whānau who associate most closely with Pehiāweri are descended from 6 whānau lines, the tamariki of Pirini Kake raua ko Katerina (Mate) Hemi nō Ngāti Hine.

Kake Peru (T) = Riripeti Hirawani (W)

|

Pirini Kake (T) = Katerina (Mate) Hemi (W)

**Figure 73 – Pirini Kake raua ko Katerina (A.K.A. Kauta or Mate) Hemi.<sup>124</sup>**



© Chawren marae, personal photograph.

### Ngā Tamariki a Pirini Kake

**Henare Kake (T)** = Tema Ropata Laing

**Kahui Kake (W)** = Tohu Akarana (1) = Mohi Pairama (2)

**Mauhaere Kake (T)** = Whakama Ngahoari Pumuka

**Wiremu Kake (T)** = Kataraina Pita Tono Kingi

**Haki Kake (T)** = Ruiha Brott

**Perepe (T)** = Gertrude (no living descendants, both tamariki died as children)

**Toki Kake (T)** = Hohi Tata Wipaki nō Te Arawa raua ko Whakatōhea

I personally descend from the Toki Kake line. My whakapapa is as follows:

Pirini Kake = Katerina (Mate) Hemi  
|  
Toki Pirini Kake = Hohi Tata Wipaki  
|  
Haki Toki Kake = Ruth Olive Baker  
|  
Debra Lee Kake = Berthold Gustav Koene  
|  
Bonnie Jade Kake

### **Ngā Moemoeā / Wawata**

*N.B.: This is an edited/collated version of aspirations articulated through whānau hui, including a series of wānanga held in 2015 in relation to the Pehiāweri Marae Papakāinga project, and a strategic hui held in 2013 in relation to whānau aspirations for Pehiāweri B1B.*

Our vision for Pehiāweri is to create a place for our whānau to be able to come home to live on our tūrangawaewae, our tūpuna whenua. We want to live sustainably, communally, to work and live on our land, and to be connected to our marae and to each other. As a whānau, we are in a unique position to build a thriving community and become champions of self-sufficiency and interdependence.

We aspire to develop our whenua holistically; moving beyond just housing to empower our communities to respond fully and cooperatively to our own needs - from helping to establish micro-enterprises and building māra kai that grow healthy food to feed the papakāinga as a whole, to activities for rangatahi, high quality education programs and arts and cultural events.

### **Values**

- Kaitiakitanga – *sustainability, future resource, preservation*
- Rangatiratanga – *leadership*
- Self sufficiency
- Respect – for whenua, tangata, whānau, wildlife and trees, wai

- Tikanga
- Kaupapa Māori
- Tū Kaha – *strength* (family and community)
- Ngā Puāwai – *flourishing*
- Kotahitanga – *unity*
- Whakapapa – *connection*
- Whanaungatanga – *relationships with whānau / hapū / community*

## Goals

- To develop our skills and share knowledge, and to tap into the resources and skills available within the whānau
- To re-establish our connection with our tūpuna whenua, for our whānau, for our tamariki, for our future
- To nurture our whānau and provide for our wellbeing
- To create a place for whānau from elsewhere to come back
- To look after our kaumātua and provide a place for us as a whānau to learn from our elders
- To stand tall on our tūrangawaewae and have a specific place that we can all call home
- To build relationships within our whānau, marae, hapū and community
- To know the stories of our whenua, and reconnect with the values and beliefs of our tūpuna
- To develop a teaching base for our tikanga, reo and mātauranga
- To support sustainable entrepreneurship, and provide training and employment opportunities for our rangatahi
- To live self-sufficiently, getting our food, energy and water from the whenua
- To tiaki our whenua by planting native bush and remediating our wetlands

## Principles

### Papakāinga Housing

- Housing that is ecologically sustainable and uses local materials
- Housing that is fit for Māori cultural requirements and whānau dynamics
- Housing that is affordable
- Housing that empowers whānau to live self-sufficiently, getting our food, energy and water from the whenua (as our tūpuna did before us)
- Allocation based on both commitment to the marae kaupapa and need
- Whoever lives at the marae participates in the marae
- Visibility of children's play areas
- Accessibility
- Governance and management separate

## Overall

### *Cultural & Spiritual*

- Urban design features that reflect our cultural identity and reinforce our connection with the whenua, providing opportunities to pass on the stories of our whenua, and to reconnect with the values and beliefs of our tūpuna
- Communal facilities that will enable us to develop a teaching base for our tikanga, reo and mātauranga
- Provide facilities to host arts and cultural events

### *Social*

- Provide opportunities for us to strengthen our relationships with our whānau, marae, hapū and broader community. This could encompass communal spaces, circulation and connections, programming, and housing
- Increase whānau interdependence through shared facilities and resources
- Provide facilities to host activities for tamariki and rangatahi

### *Environmental*

- Tiaki our whenua by planting native bush and remediating our wetlands
- Restore tuna (eel) habitat
- Māra kai to be planted, ranging from small scale whānau gardens to a large semi-commercial permaculture farm
- Māra rongoā / medicinal gardens
- Healing pools
- Pā Harakeke to be planted for weaving
- A raised boardwalk through the wetland for school groups / education / kaitiakitanga

### *Economic*

- Support sustainable entrepreneurship, and provide training and employment opportunities for our rangatahi
- Provide facilities/opportunities for all (who want to) to live and work on the land
- Leveraging the already-strong relationships between Pehiāweri Marae and Northtec, there is the potential to engage our own rangatahi in trades training and employment, leading to more qualifications in building and increased capacity throughout Northland



## Masterplan

### Masterplan Development

A masterplan indicating the provision of papakāinga housing at the marae was drawn up in the early-mid 1980s. This was alluded to verbally during wānanga and interviews, however the location of the original masterplan was not known to interviewees. A low-quality facsimile of the original drawing was produced by a whānau member the weekend prior to the completion of this document. The kōrero behind the original masterplan relates to the tūpuna Kahukurī, and the kurī (dog), which is a kaitiaki of Pehiāweri. The architect is unknown, however it is likely that the masterplan was completed by Vincenzo Terrini, who designed the marae complex buildings.

**Figure 74 – Original masterplan for Pehiāweri Marae.**<sup>125</sup>



Some discussion with whānau members has called into question the appropriacy of developing housing on our marae, with the main whakaaro being to retain our marae as a wāhi tapu. This masterplan, therefore, is important as it provides affirmation of, and legitimacy to, the current proposal for papakāinga at the marae. According to the whānau member who produced this photograph, the masterplan was Koro Wiri's (Wiremu Pirini Kake) vision for the future of our marae, and was originally hung in the kitchen of the old vicarage house (manse). It is hoped that the original masterplan can be recovered and returned to the now-renovated manse.

The housing in the original masterplan was located in the North-East corner of the site, however an orchard has since been planted in this location, and recent discussions regarding the proposed papakāinga have ruled this location out due to road noise and safety concerns. It is my belief that the contemporary plans that have been produced are in alignment with the original intentions of the marae masterplan, whilst also taking into consideration traffic-related concerns as a result of growth in the Whāngarei region over the past three decades.

<sup>125</sup> Christina Kake, personal photograph.

A key tool that I developed for this project was a site planning kit, which consisted of cardboard models, a flat site plan, and a 2D set of landscape elements, including paper printed to represent ground surfaces including grass, concrete, asphalt, gravel and permeable paving, vegetation (trees and shrubs) printed on overhead transparency film, and coloured plan drawings of playgrounds and sports courts.

**Figure 75 – Site planning kit**

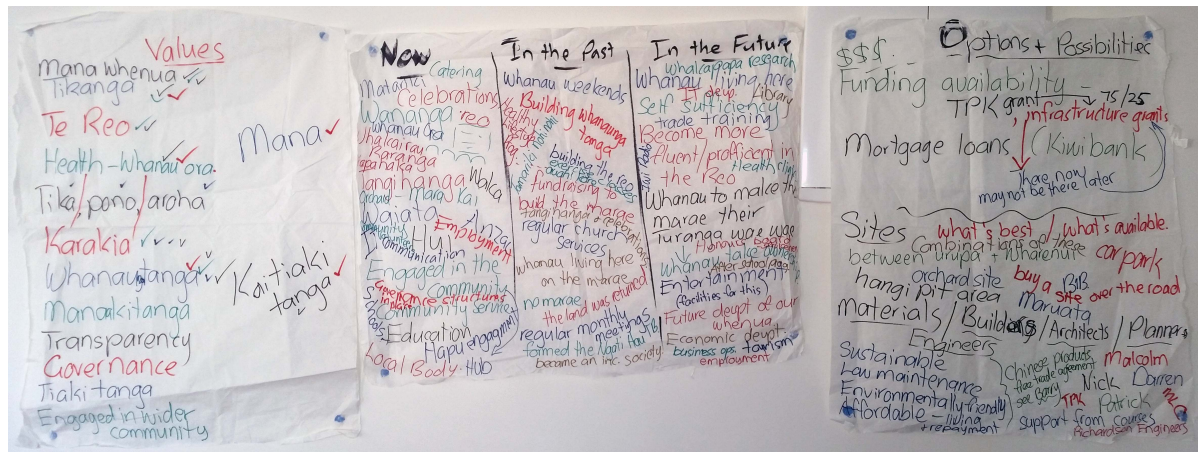


**Figure 76 – Site planning kit in use during workshop at Pehiāweri Marae**

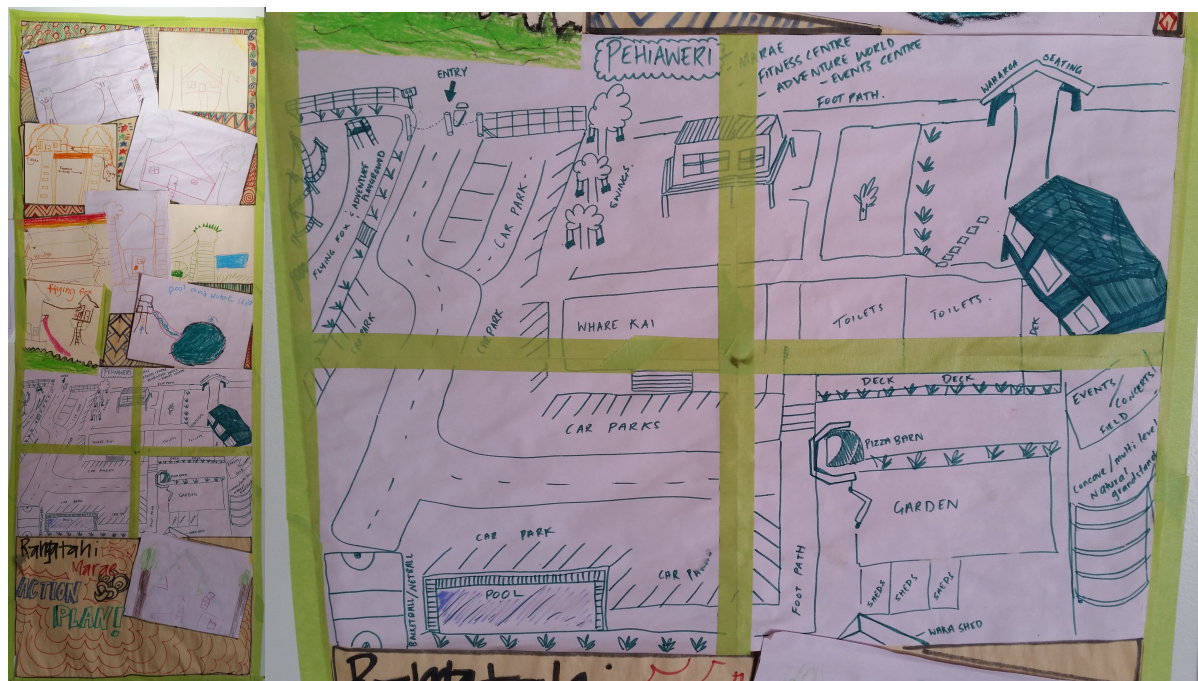




**Figure 77 – PATH plan for Pehiāweri Marae papakāinga**

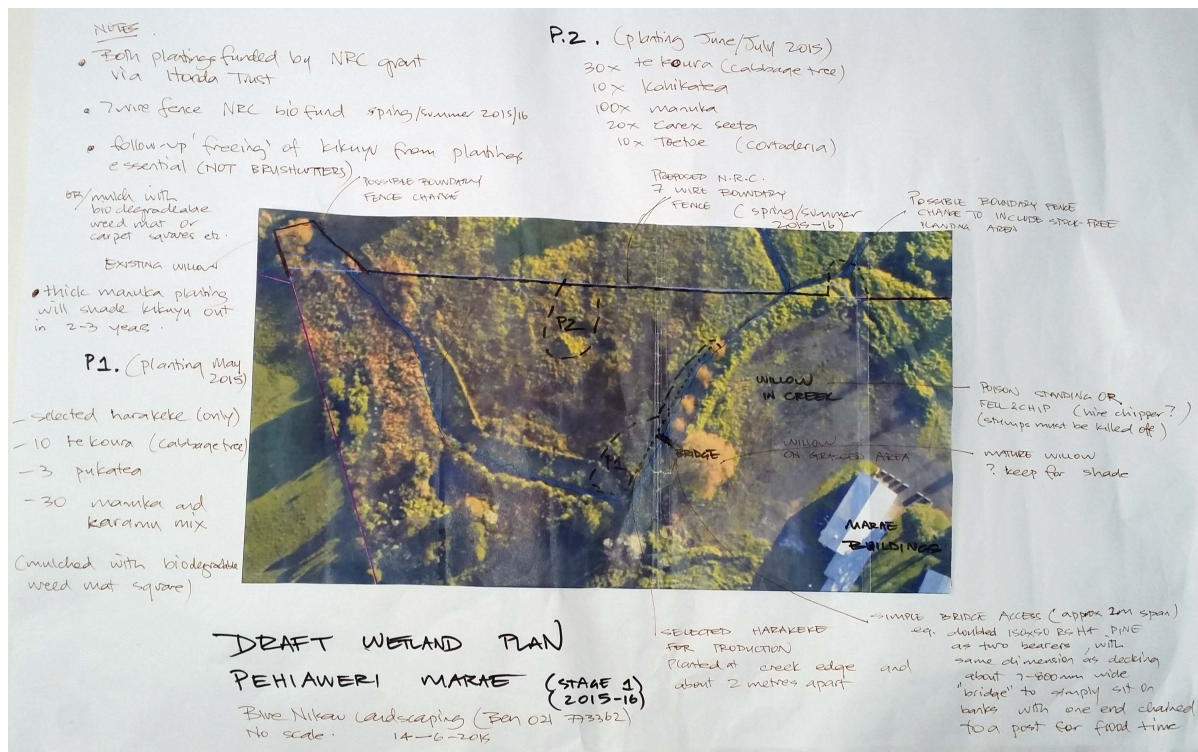


**Figure 78 – Rangatahi Marae Action Plan**

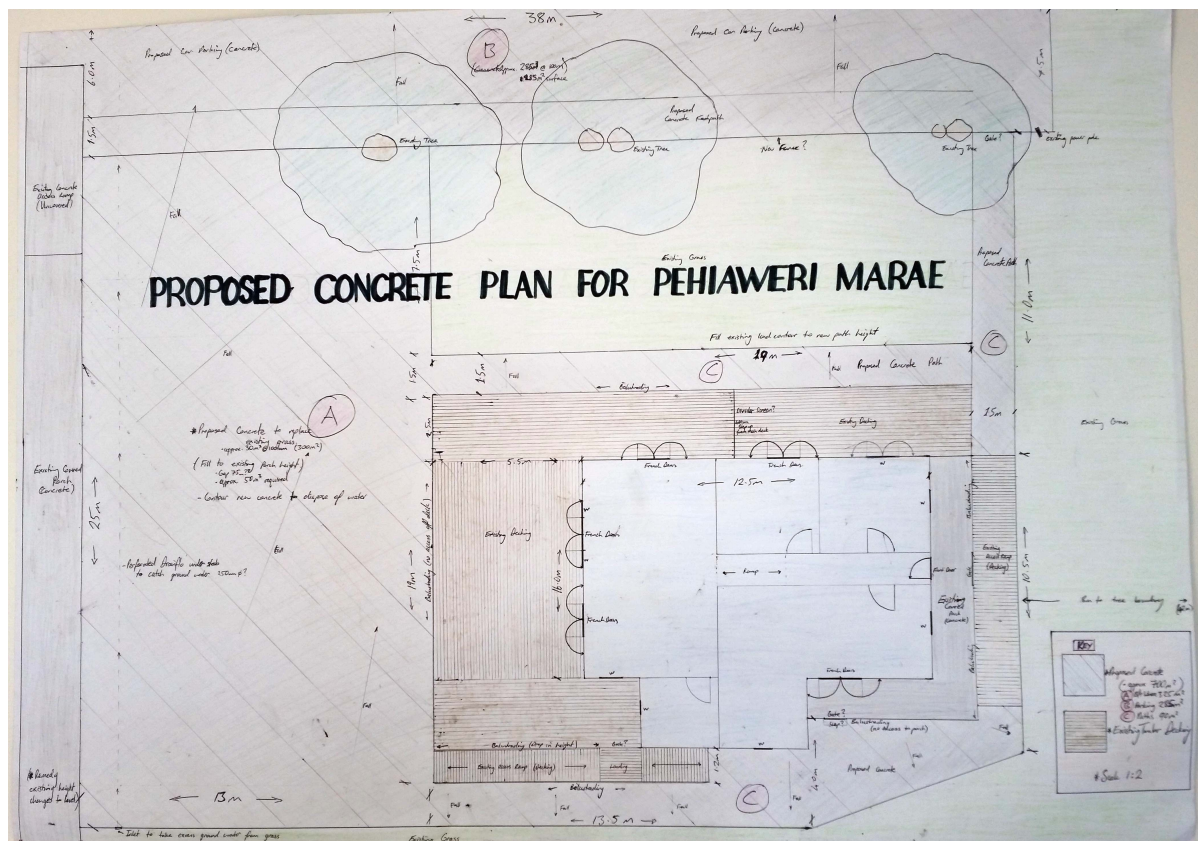




**Figure 79 – Draft Wetland Plan for Pehiāweri Marae**



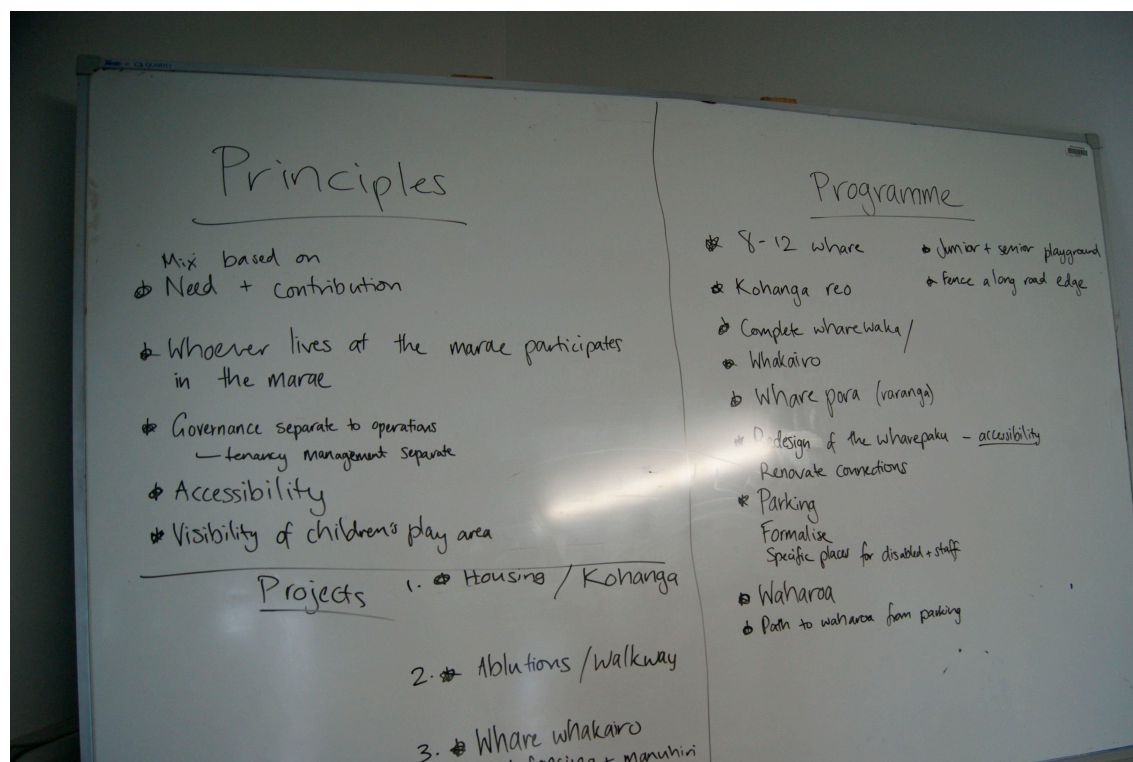
**Figure 80 – Proposed Concrete Plan for Pehiāweri Marae**



## Programme

The architectural programme and masterplan were developed concurrently, through a series of hui, wānanga, and whānau conversations. For several weeks the site planning kit (developed for the workshops) was also set up in manse (admin block), enabling anyone who visited the marae to test it out and contribute ideas.

Figure 81 – Writing on whiteboard during workshop at Pehiāweri Marae



I have attempted to coalesce the programmatic elements and requirements articulated by the whānau into an architectural programme.

Table 3 – Pehiāweri Marae Programme

Project	Programme
<b>Papakāinga and Kohanga Reo</b>	<ul style="list-style-type: none"> <li>8 residential dwellings, to be constructed in 2-3 stages (2-3 dwellings per stage)</li> <li>Infrastructure to accommodate increased system loading</li> <li>Communal laundry</li> <li>Kohanga reo</li> <li>Carparking to meet kohanga requirements</li> <li>Junior playground</li> <li>Senior playground</li> <li>Sports facilities / playing courts</li> </ul>

<b>Marae Upgrade</b>	<ul style="list-style-type: none"> <li>▪ New ablutions</li> <li>▪ New/extended decking</li> <li>▪ Enclosed corridor / walkway</li> <li>▪ Fencing</li> <li>▪ Carparking</li> <li>▪ Paving</li> </ul>
<b>Mahi Toi</b>	<ul style="list-style-type: none"> <li>▪ Whare whakairo + tomokanga</li> <li>▪ Waka shelter + carving studio</li> <li>▪ Whare pora (raranga)</li> </ul>

An initial attempt has also been made to stage these projects over 10 years. The staging is based primarily on the priorities articulated by the marae, anticipated size or cost of the project, and also the funding available to cover specific projects. Some staging decisions also relate to the activities of one project being foundational to the establishment of another i.e. children living in the papakāinga prior to the establishment of a kohanga reo.

**Table 4 – Pehiāweri Marae Masterplan: Project Staging**

	Stage 1 (Year 1-2)	Stage 2 (Year 3-4)	Stage 3 (Year 5-6)	Stage 4 (Year 7-8)	Stage 5 (Year 9-10)
<b>Project one: Papakāinga &amp; Kohanga Reo</b>					
1.1.1. Papakāinga (stage one)					
1.1.2. Papakāinga (stage two)					
1.1.3. Papakāinga (stage three)					
1.2. Kohanga reo					
1.2.1. Playground					
<b>Project two: Marae Upgrade</b>					
Marae upgrade					
<b>Project three: Mahi Toi</b>					
3.1. Whare whakairo + tomokanga					
3.1.1. Oral history					
3.1.2. Archival facility					
3.2. Waka shelter + carving studio					
3.3. Whare pora (raranga)					

Planning



Implementation



### Orientation of the wharehui

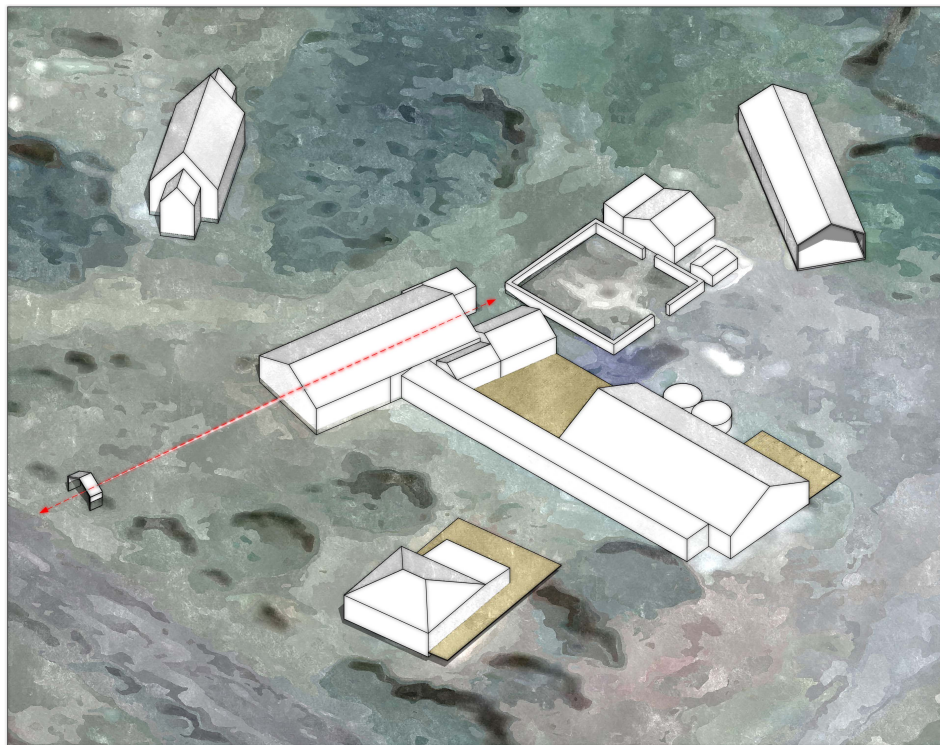
Pehiāweri Marae are currently working towards carving the wharehui, Te Reo o Te Iwi. It emerged from these whare whakairo discussions that the orientation of the meeting house is a major issue that will need to be resolved as this project progresses. The current wharehui is south-east facing, towards the road, which is thermally and practically a poor orientation. The pathway between the carpark and the marae ātea is also undefined (which causes confusion for manuhiri) and also somewhat dangerous, as there is no fence separating the ātea from busy Ngunguru Rd.



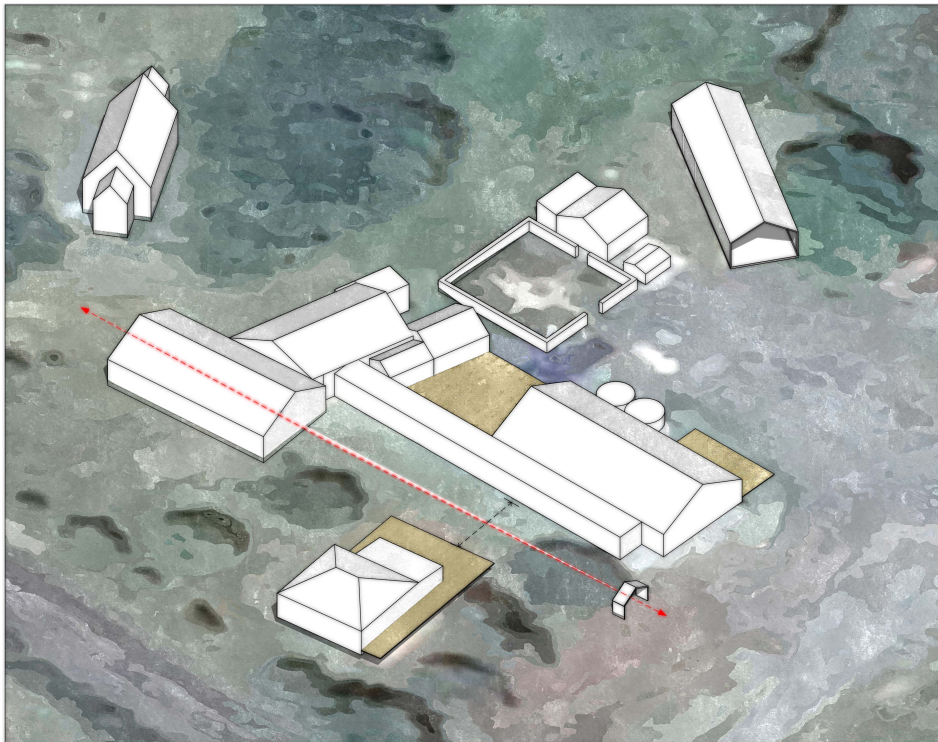
The current orientation is also problematic from a tikanga perspective. Traditionally, our meeting houses face between North and East to meet the rising sun, although this is somewhat flexible and at many marae whare have been oriented to face the awa, moana, or in our case, the road. Where this becomes an issue (from a tikanga perspective) is in the placement of the tomokanga or ceremonial gateway. Whilst it has always been intended that a tomokanga be erected at the entrance to our marae ātea, guidance from one of our kaumātua indicated that to be tika, the entrance to the tomokanga must be located outside of the marae complex. Given the location of the road, this would not be possible were the wharehui to remain in its current location.

Discussions centred on how to resolve these thermal, safety and tikanga issues in a way that is respectful of our current wharehui. Below are three potential solutions/proposals for the resolution of this problem.

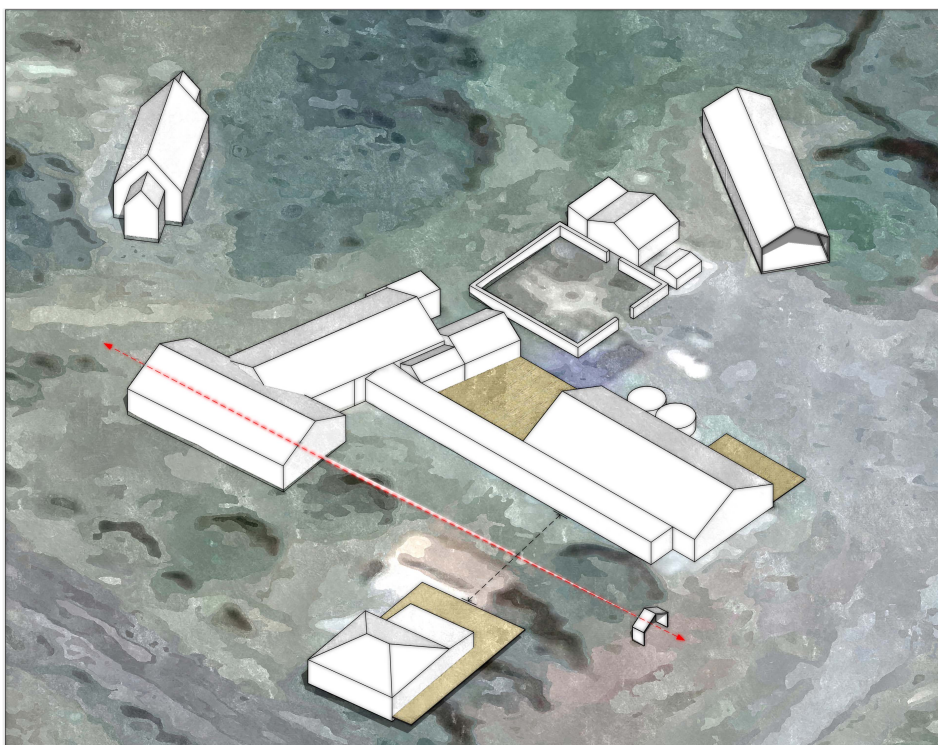
**Figure 82 – Orientation of wharehui – Option 1**



**Figure 83 – Orientation of wharehui – Option 2**



**Figure 84 – Orientation of wharehui – Option 3**





## Final masterplan

Figure 85 – Pehiāweri Marae 10 Year Masterplan



## Papakāinga Design

The proposed papakāinga consists of eight residential units and communal facilities. Eight whare were articulated by the marae as the desired number of dwellings, which was determined in part through consultation with an engineer from the community who has been assisting with the project. Through the process of testing various configurations on the site, I became convinced – with due consideration given to both appropriate density and solar orientation – that this was the maximum number that could be appropriately sited on the land available. Although the development potential of the marae site itself is limited, it is anticipated that the adjacent block, Pehiāweri B1B, will be available for papakāinga development in future, which will enable more whanau to settle in close proximity to the marae.

The design of individual whare and shared facilities, and their arrangement on site and landscape between them, have been designed through careful consideration of precedent analysis, the Māori housing guidelines presented in *Ki Te Hau Kāinga*,<sup>126</sup> and the principles established through whānau hui. The mixture of 4, 2 and 1 bedroom units was chosen due to an early decision made to balance the desire to prioritise kaumātua/kuia and families with young children in the allocation of housing, with the need to maintain an appropriate whanau mix that includes wage earners who have the ability to contribute financially to the papakāinga.

### Site Layout

It is anticipated that the papakāinga will include a mix of tenants, including kaumātua/kuia, middle-aged working people, and young families. The development includes a mix of 1.5, 2.5 and 4.5 bedroom whare arranged in clusters of 2 or 3, which have been designed for flexibility and with the ability to be configured as intergenerational whānau homes or separate dwellings as needs change over time.

The whare are north facing and arranged along the southern edge of the wetland. The roadway is located behind/to the south of the whare, allowing for safe play on the northern side, which is bordered by a pedestrian boardwalk, (located along the southern edge of the stream/channel). Each whare has a small semi-private yard, with houses in clusters of 2 or 3 also sharing a larger courtyard, defined by soft landscape and retaining walls. The homes in each cluster are offset from each other to form a loose u-shape, defining a central courtyard whilst retaining the visual privacy of individual dwellings. The lack of fences between dwellings is intended to increase community cohesion, with private/shared/communal zones articulated through landscape design.

It is intended that the communal facilities associated with the papakāinga enhance, rather than duplicate, what is already available at the marae. Through precedent analysis, the following communal facilities have been selected as appropriate for the papakāinga:

- Commercial laundry
- Workshop / garage
- Wharau (covered shelter / cooking and dining area)

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<sup>126</sup> Hoskins et al., *Ki te Hau Kāinga*.

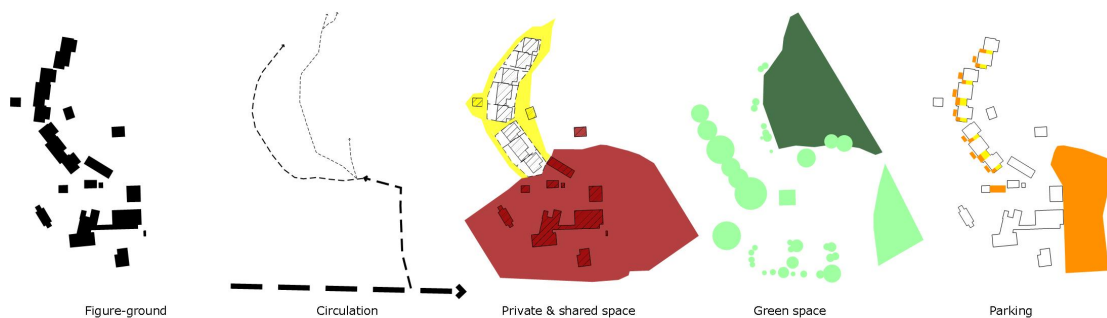
It is envisioned that the existing māra kai, orchard, greenhouse and potting shed associated with the marae would be used by the people who live in the papakāinga. The communal laundry has been located on the eastern edge of the papakāinga and close to the marae facilities, which would enable the marae and community members to use the laundry without entering the papakāinga area. It is envisioned that the laundry could also possibly be used to develop a small marae-based business servicing the wider local area.

The workshop has been sited in the southwest corner as an ‘anchor point,’ enabling the communal nature of this space to be maintained and preventing the privatisation or monopolization of this space by the nearest whānau. It is also located on the road side of the papakāinga, as a place to work on cars, bikes, etc.

The third communal building is a wharau or shared outdoor cooking and dining area, centrally located on the northern edge of the papakāinga. This is a place for the people living in the papakāinga to come together informally over kai.

Due to the close proximity to town, infrastructure requirements will be minimal; the anticipated scope of works will include site fill, light traffic roading including an access bridge to the site, connection to Council water supply, connection to mains power (with additional transformer), connection to existing sewerage system, and attenuation strategies for stormwater prior to discharge into the wetland, such as swales, permeable paving, and roof gutters and gravel pits to deal with roof runoff. Some on-site water collection for garden, toilet and washing machine use may also be advisable.

**Figure 86 – Diagrammatic analysis of site plan**



## Whare Design

### *Floor plan layout*

The 3 housing unit types have been developed in accordance with passive solar design principles, and through careful application of the Māori housing guidelines presented in *Ki Te Hau Kāinga* and Lifemark standards.

Passive solar design:

- Length of building oriented North
- North-facing living areas with large openings

- Minimal south facing windows
- Large eave overhangs
- Bathrooms and service spaces located to the west

Design elements reflecting Māori whānau and cultural dynamics:

- Welcoming front entry to the North, including a large covered deck, allowing kitchen, dining and living areas to monitor visitors and supporting positive interactions with manuhiri
- Concrete slab on grade and decks provide multiple opportunities for indoor-outdoor flow
- Rear porch/carport suitable for use as an outdoor food preparation area, particularly for kai moana
- Generous main living area, large enough to accommodate whānau gatherings of up to 20 people.
- Kitchen able to accommodate 2 or more people
- Location of kitchen and dining room providing good indoor and outdoor tamariki supervision, with kitchens overlooking outdoor play areas
- Multiple fire exits – French doors off ground-floor bedrooms to allow for easy fire egress in the event of an emergency
- Second lounge area (mezzanine) where teenagers can retreat during whānau gatherings, or which can be used for marae style sleeping
- Two toilets in the larger (4 bed home) to better accommodate large numbers of children as well as manuhiri
- Mahau on the eastern side off the ground-floor bedroom as a private outdoor space for early-rising kaumātua/kuia

Accessibility (Lifemark standard):

Ground floor is to Lifemark code for accessibility for kaumātua/kuia or whānau with disabilities. This includes;

- One bedroom at ground level (plus a sunroom off the main living space for a carer or grandchild)
- Level entry doorway (away from the kitchen) for fire egress
- Wide doors and corridors
- Wet area disabled access shower
- Accessible toilet

The architectural drawings show three modular housing units, each with a ground floor plan and an upper level/mezzanine floor plan. The units are labeled 1-BED WHARE, 2-BED WHARE, and 4-BED WHARE. Each unit includes a terrace and a parking space. The 1-Bed unit has a ground floor with a living area, kitchen, and bedroom, and a mezzanine with a bedroom. The 2-Bed unit has a ground floor with a living area, kitchen, and two bedrooms, and a mezzanine with a bedroom. The 4-Bed unit has a ground floor with a living area, kitchen, and two bedrooms, and a mezzanine with two bedrooms.

An analysis of Vince Terrini's original 1983 plans for the marae has provided the basis for the architectural language.

The planned renovation/upgrade project is a prime opportunity to reinstate some of the better features of the original plans, and to establish a coherent architectural language for the whole marae. In my opinion, despite the issue of the orientation of the meeting house (discussed above), the vast majority of architectural moves in the original plans are sound, particularly the window detailing and establishment of a consistent architectural language. However, given the north-facing orientation they occupy, the location of the ablutions is not ideal, particularly as a deck has since been built along the northern edge. Although the new deck has been valuable in facilitating better connections between the wharekai, māra kai, and wharehui, the experience of occupying the space behind the toilets is awkward and somewhat unpleasant. My recommendation, therefore, is to demolish the toilet block, and to



build new ablutions along the north and eastern edges of the wharehui, opening up the space between the wharehui and the wharekai for a large north-facing deck.

Figure 88 – Pehiāweri Marae consent drawings (Terrini, 1983): site plan & ātea perspective

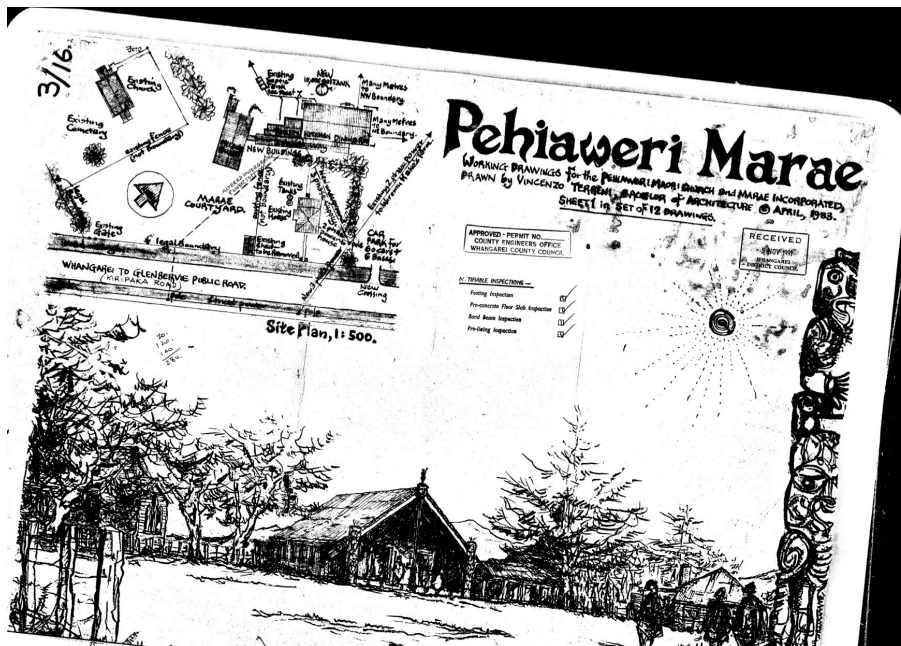


Figure 89 – Pehiāweri Marae consent drawings (Terrini, 1983): floor plan and roof plan

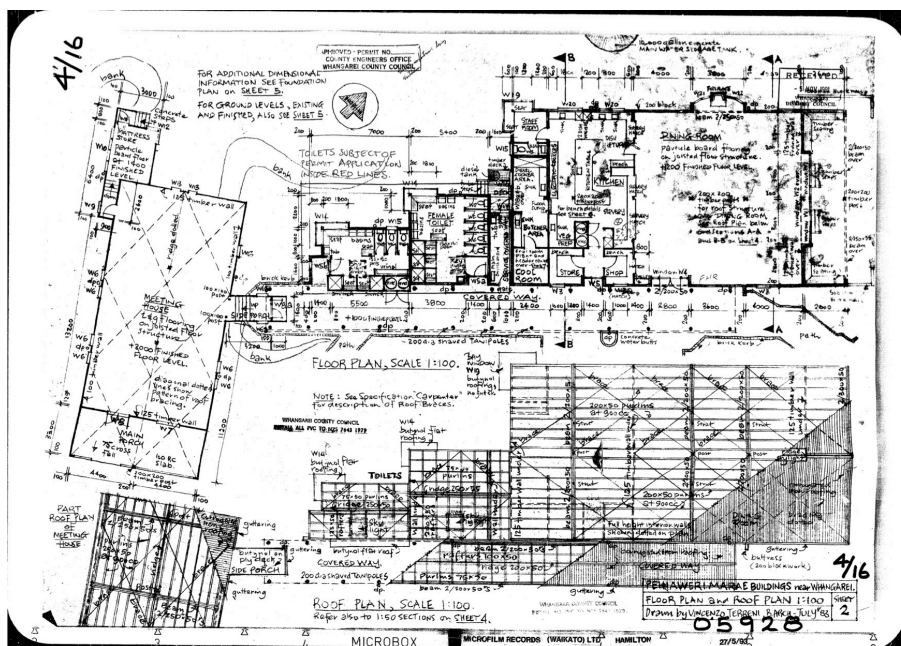


Figure 90 – Pehiāweri Marae consent drawings (Terrini, 1983): elevations

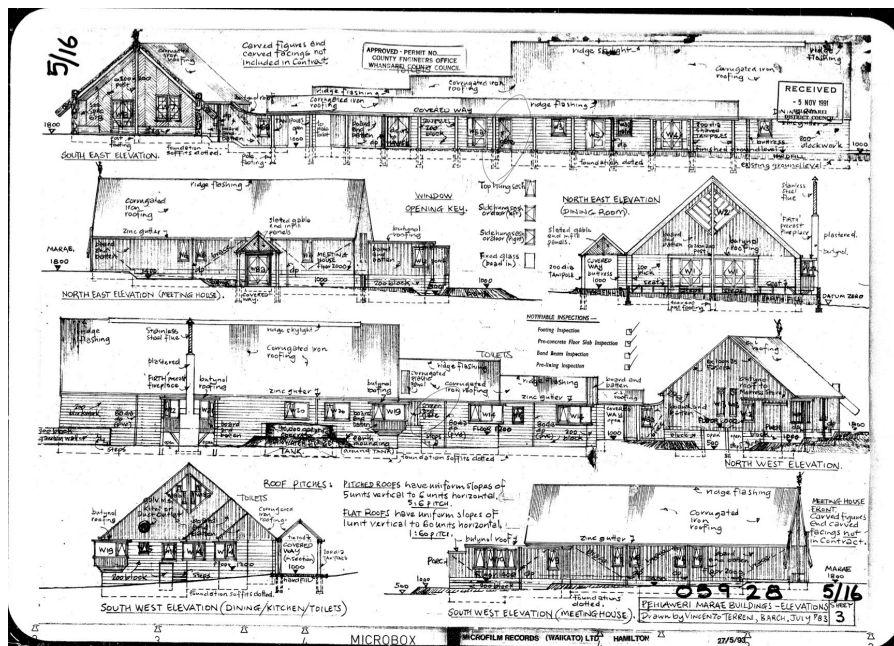
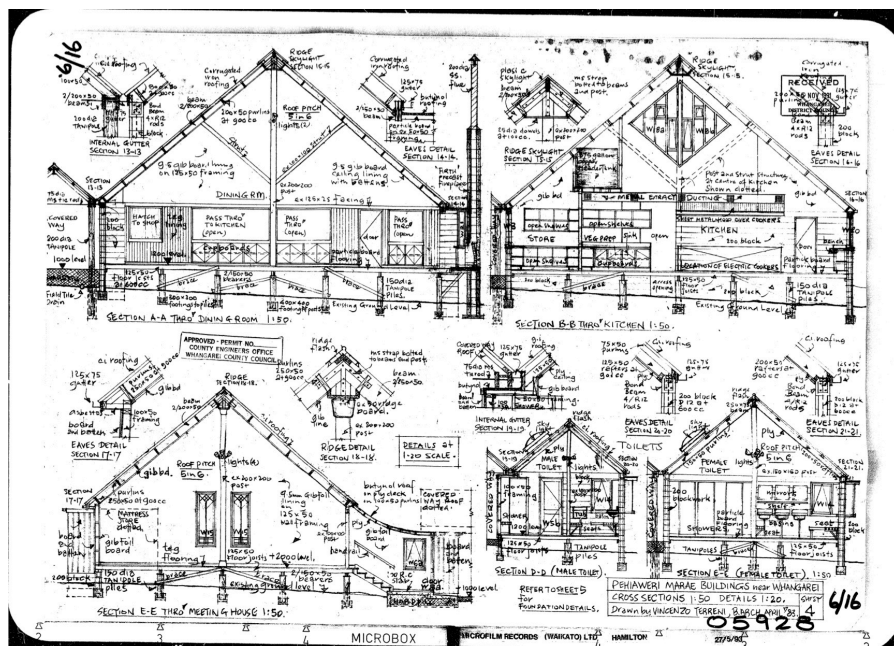


Figure 91 – Pehiāweri Marae consent drawings (Terrini, 1983): sections



I have re-used or re-interpreted three core elements of Terrini's original designs in the design for the papakāinga:

1. Roof pitch
2. Motif
3. Materials

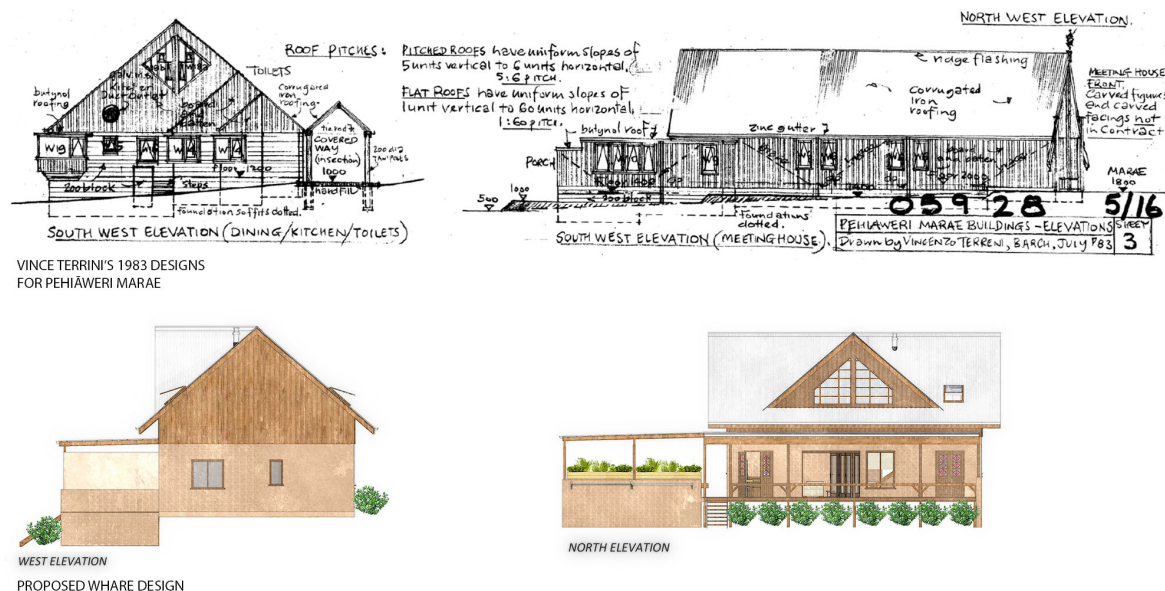
In the original plans for the marae, all of the roofs except the mattress store maintained a 5:6 pitch. However, in practice, the covered walkway was also built flat, with the gable roofs built at a shallower pitch which is not consistent throughout the complex. In the papakāinga

design, I have followed the rules established by the architect in the original plans for the marae – pitched roofs for the main part of the whare, and flat roofs for the deck and carport.

**Pitched roofs** have uniform slopes of 5 units vertical to 6 units horizontal = **5:6 pitch or 39.8°**

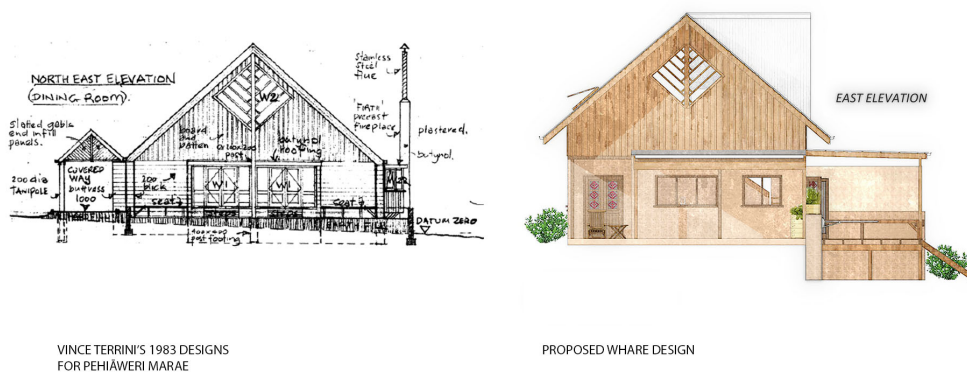
**Flat roofs** have uniform slopes of 1 unit vertical to 60 units horizontal = **1:60 pitch or 1°**

**Figure 92 – Use of Terrini's roof pitch (elevations)**



Terrini also uses a Harakeke motif throughout the complex, notably the large window on the North-East elevation of the wharekai. In the papakāinga, this has been replicated for the eastern elevation of the whare, and repeated as a smaller motif on the door panels. On a literal level, this is a suitable motif due to the close proximity of the repo and the pā harakeke.

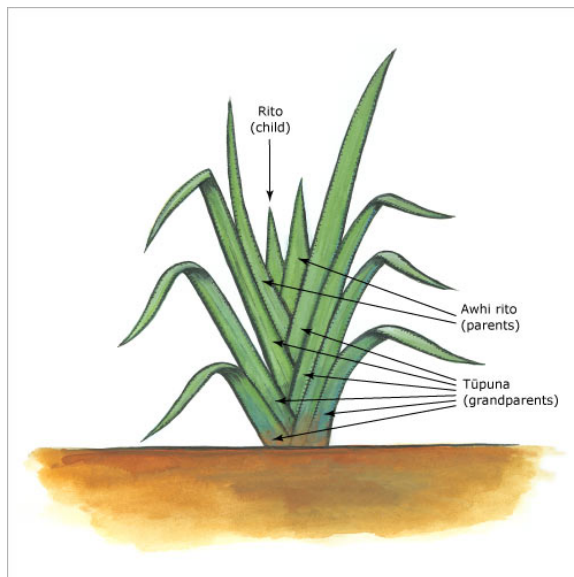
**Figure 93 – Use of Terrini's Harakeke motif (elevations)**



Harakeke is also sometimes used as a metaphor for the whānau, and for the attributes and lessons passed down intergenerationally from parents and extended family to the child:

Ko te harakeke he tohu nō te whānau. Ko te rito, te tamaiti. Ka karapotia te rito e ngā awhi rito (ngā mātua) hei whakamarumarū. Ko ngā rau o waho, ko ngā tūpuna – *the harakeke (flax) plant represents the family. The centre shoot is the child. It is surrounded by the awhi rito (the parents) as protection. The outside leaves represent the grandparents and ancestors.*<sup>127</sup>

**Figure 94 – Harakeke metaphor**



The papakāinga represents our hopes for our tamariki and for our future, including the revitalisation of our language and our cultural practices, and for this reason the harakeke is a highly appropriate motif.

In the marae, the materials used are blockwork (horizontal) to the base of the gable roof, and board & batten (vertical) above. This has been replicated in the papakāinga, however the blockwork has been replaced with earth brick. It is envisioned that the blockwork in the marae could be rendered to match the exterior finish of the papakāinga housing as part of the renovation/upgrade project.

#### *Material & technological considerations*

Earth has been investigated as a potential primary construction material for the external walls.

The advantages of earth building:<sup>128</sup>

- Low cost of materials

<sup>127</sup> Te Ahukaramū Charles Royal. 'Te Waonui a Tāne - Ngā tohu i ngā rākau me ngā tipu', Te Ara - the Encyclopedia of New Zealand, updated 14-Nov-12  
URL: <http://www.TeAra.govt.nz/mi/diagram/13162/harakeke>

<sup>128</sup> Waitakere City Council, *Waitakere City Council's Sustainable Home Guidelines / Earth Building*, <http://www.waitakere.govt.nz/abtcit/ec/bldsus/pdf/materials/earthbuilding.pdf>, 4

- Can be built by unskilled labour
- Thermal mass for natural heating by the sun
- Continuity of architectural language
- Low environmental impact
- Non-toxic
- Low fire risk, non-combustible
- Virtually soundproof
- Culturally appropriate

For Pehiāweri, we have a ready supply of raw material, and free labour through our relationships with Department of Corrections and the trades training programs run at the marae. This means that we are able to reliably build sweat equity into our financial model, which can be used to meet funder co-contribution requirements and leverage finance. Additionally, as tangata whenua, the ability to live in houses made of earth intensifies the link to Papatūānuku as a provider of hauora.

The disadvantages of earth building:<sup>129</sup>

- Labour intensive
- Poor in insulation
- Time and expensive required for soil testing, calculations, reports
- Roof overhangs necessary to provide weather protection
- Requires a stable site that does not flood and provides reasonable protection from the erosive effect of driving rain
- Earth walls limited to a single storey

Both rammed earth and earthbrick were considered, however earthbrick has been nominated as the preferred technique. Whilst both are labour intensive, the advice given by several builders experienced with earth construction is that rammed earth does not lend itself as easily to the use of unskilled or semi-skilled labour. The process of making earth bricks enables large batches to be made and left to dry overnight, ready for construction the following day. Whilst the initial cost of the moulds or presses can be prohibitive for a single dwelling, this can be a cost-effective option for multi-house builds.

The location of the floodzone has the potential to create some issues in the use of earthbrick. The advice from a retired engineer in the community was to use fill to elevate the building platform out of the 100 year floodzone. As Whāngarei's climate is mild and relatively stable, and Pehiāweri is located inland, the risk of erosion caused by wind and driving rain was not seen as an issue. Overall, pressed earthbrick is the preferred option, as the cement stabilised blocks are very regular and are therefore able to be laid with precision. A nominal size of 250x250x130mm has been specified in the drawings.

Timber framing or SIP panels have been nominated for the internal walls. Timber framing is also the material specified for the upper level / mezzanine, with board and batten for the external cladding. Laminated Veneer Lumber (LVL) has been considered as a potential

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<sup>129</sup> Ibid.

framing material, as this is produced locally at Marsden Point, however this has not been investigated further. The roofing material will be corrugated metal.

## Discussion

In response to the primary research question – *What is the process of re-establishing ahi kā on whenua Māori through papakāinga? What role can architecture play in facilitating this process?* – my research has demonstrated that the process of re-establishing ahi kā is iterative. It accumulates over time, and requires a commitment to being there, on the ground, day-in, day-out. It requires an ongoing commitment, and is realised inter-generationally.

Sub-questions (a) *What are the aspirations of the people of Pehiāweri?* And (d) *Given the justified criticisms of mainstream practice with regards to delivering appropriate housing solutions for Māori, what would an appropriate design methodology for working with Māori communities look like?* and (e) *How can participatory design techniques meaningfully engage non-designers in the design process, and how is the role of the architect redefined within such processes?* have been explored and responded to through the wānanga process.

My experiences working on this project have taught me that there is absolutely no substitute for being on the ground, actively engaging with the community. This research project has really been driven and developed by our own community members, with my contribution to the overall effort including design, facilitation, project management, and an ability to frame the project in terms of research. Throughout, I have attempted not to elevate the role of ‘the architect’ – of course in practice, professional skills are needed, and valued, but these need to be considered within the context of the other skills whānau and community members bring to the table. I believe this project could be considered a successful first attempt at invoking Linda Groat’s “architect-as-cultivator” in practice.

Combining Western participatory design techniques with wānanga was successful in terms of outcome (the development of the masterplan), although the use of such was often not as anticipated. The site planning kits proved more useful for socializing ideas and raising awareness/fostering community engagement with the process, than for actually generating ideas. I think partially this may have been to do with my insider status within the community. I was placed in a position of high trust – rather than seeking to generate their own architectural ideas, my whānau trusted me as a designer, trusted me to listen to them, and to make the right choices on their behalf. Conducting ‘insider research’ brings with it its own unique benefits and challenges, as community members will trust you with their stories and information that would likely not be made available to an outsider conducting research. As an insider researcher, you are trusted with whānau and hapū history and cultural knowledge, because it is knowledge that is a part of you, that you are also responsible for protecting.

My experience with the site planning kit also highlighted that non-architects do not necessarily read drawings and models in the same way as trained architects. The first site planning kit I designed included rectangular boxes representing whare. People had trouble remembering that these were whare, and kept asking what the rectangles were supposed to represent. In the next iteration, I created a set of whare with hipped roofs, and a label



engraved on the side i.e. “2 bed whare, 90m2”. I also found that people did not engage with the kit of groundcover textures, perhaps because the rest of the kit did not require this level of generative activity, although the playgrounds were used once I had cut them out. The site planning kits were, however, popular with the community (at one point, I removed them to show as part of a presentation – soon after my Uncle contacted me to ask that I return them, as people had been asking about them).

The qualitative methods (when compared with interpretative-historical methods) proved the most manageable, as these simply involved spending time at the marae, talking to people, facilitating some structured sessions, and actively participating in the process. This approach enabled me to write up the results largely from memory, with the support of some structured note taking. I also recorded some sessions with an audio recording device, but for the most part did not complete abstracts or transcripts, using the recordings principally for reference and fact checking.

The answers to sub-question (b) *What are the significant aspects of Ngāti hau mana whenua tikanga, te reo, tohu and local history that should inform the design?* have largely been made explicit through the design outcome. Archival research, analysis of Vince Terrini’s original design for the marae, narrative interviews, cultural mapping, and kōrero gathered through wānanga processes have all informed the design.

The interpretive-historical research was largely restricted to local history records and whānau kōrero. The research on Ngāti Hau land losses, completed by Hana Maxwell for our Treaty claims, proved to be an extremely valuable resource, saving me the many hours of research that would have been required to decipher and piece together Māori Land Court minute book records. The Northland Room at Whāngarei City Library, particularly the Florence Keene notebooks, was another useful source of local history information.

Although I did complete some of this work (albeit on a more limited scale than originally intended), the cultural mapping process I instigated proved to be largely outside the scope of this project. I believe this has potential as a longer-term project, involving the training of a number of community interviewers and undertaken over a longer time period. As we are currently working our way through our Treaty claims process, this could have potential as a hapū wide project. The cultural mapping I did complete proved to be mostly relevant at an urban scale, with limited applicability at the scale of the marae site. Additionally, more work is needed to determine and achieve consensus around protocols for the protection and management of map data.

Another issue with undertaking cultural mapping was the sheer amount of work associated with preparing abstracts of oral history recordings. I was given a copy of the audio recording of a six-hour interview with one of our kuia, recalling her memories growing up at Pehiāweri. Whilst this interview with our Aunty is a taonga and would have proven to be a rich and valuable resource for this project, it was simply outside of my capacity within a year-long research project to prepare an abstract or transcript of the interview, conduct a follow up interview to map the sites described in the transcript, and then attempt to translate the cultural information into a cultural design strategy.

The answers to sub-question (c) *What characterises culturally-appropriate Māori housing? What are the key design features that enable specific tikanga and cultural practice? What are the unique characteristics of appropriate Pehiāweri housing solutions?* have largely been developed through the translation of whānau preferences expressed through wānanga into design, and through the practical application of the design guidelines and strategies in *Ki te hau Kāinga*.

Sub-question (f) *What architectural strategies have been successfully employed in other (local and international) cooperative housing developments?* has been answered through the rigorous analysis of precedents. The formal spatial analysis undertaken proved to be invaluable, and a useful counterbalance to the social science methods that have dominated this project.

## Conclusion

I am immensely grateful to have been able to spend this year working with my own whānau, connecting with my tūrangawaewae, and ultimately being able to give this project back as koha to my own community.

As a person who was raised away from home and who is now based in Tāmaki Makaurau city (two-and-a-half hours' drive from Pehiāweri), I have immense respect for our hau kāinga, who keep our home fires burning. Without them, there would be no home to return to. The people of Pehiāweri Marae have demonstrated a commitment to re-establishing ahi kā, building up the marae as a strong base for our whānau, and as a hub for the wider community. People coming home to live, *kia noho ki te papakāinga*, is simply the next logical step in this process.

We are currently going through a period of revival and revitalisation – of our language, our culture, and our customs. It is a process of reclaiming what has been lost, and those things that have been taken from us by force. This is achieved through wānanga, on the marae. These things are best learnt at home.

Tangata ako ana i te whare, te turanga ki te marae, tau ana  
*A person who is taught at home, will stand collected on the Marae.*

In reflecting on my own motivations for undertaking this project as research (as opposed to completing the papakāinga as a purely architectural project), I believe the real advantage is in the ability to develop and test design research methods on a real project, and then to link these findings back into this wider context of local and international scholarship. It is in this way that research can be transformative.

By working collaboratively, the capacity of both the researchers and the community is built collectively. Through this process, research methods can be developed that are grounded in tikanga Māori and tested in a marae-based environment, enabling researchers to build competency and innovate in research methods and process for community-based research within Māori communities. It also provides an opportunity to attract resources and bring skilled people into the community, thus building community (and researcher) capacity.

It is my position that, by necessity, all indigenous research is action research. When it comes to the important work for reasserting indigenous sovereignty, decolonising ourselves and rebuilding our communities, we do not have the luxury of pursuing ‘purely theoretical’ research. In undertaking this research, I have joined the many other Māori researchers and academics who use their positions to address imbalances in resourcing, directing resources into their own communities and attracting the expertise and capital their communities need (but can seldom afford), and subsidising the many hours of unpaid work undertaken in service of these communities.

For the people of Pehiāweri, the project is significant, representing our collective hopes for our future, our children’s future, and our grandchildren’s future. Yet behind Pehiāweri, there is an increasing desire amongst Māori communities across the motu to develop papakāinga housing on their ancestral land. It is also seen by policy-makers as a potential solution to contemporary Māori housing issues, and as a field of academic inquiry it is gaining increasing recognition and scholastic validity. The implications of this research beyond the Pehiāweri community are potentially wide-ranging, and encompass applicability to community-driven papakāinga projects across Te Tai Tokerau and around the motu, the potential to inform policy development and central government funding mechanisms, and the potential to impact on future research.

## **Next Steps**

This project constitutes a small, but significant, part of a much larger kaupapa. Funding applications have been submitted for the Kāinga Whenua Infrastructure Grant (administered by Te Puni Kōkiri), and it is anticipated that we will commence civil works mid-2016, with construction on stage one of the papakāinga to commence shortly after.

The Pehiāweri Marae Papakāinga Project has also been proposed as part of a longer-term research project. The proposed project, should it be accepted, will focus on the monitoring and post-occupancy evaluation of the papakāinga over time, which in terms of contemporary papakāinga is relatively unprecedented. There will also be opportunities to undertake extensive cultural mapping, to contribute to the development of mana whenua urban design strategies for the Whāngarei City, to strengthen and develop community processes, to test and improve local regulatory processes, and to develop tools and resources for use by other papakāinga developments across Te Tai Tokerau and around the motu.

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## Appendix One: Te Reo Māori-English Glossary

This glossary has been prepared using the online version of *Te Aka Māori-English, English-Māori Dictionary and Index*.

Ahi kā	<b>(noun)</b> burning fires of occupation, continuous occupation - title to land through occupation by a group, generally over a long period of time. The group is able, through the use of <i>whakapapa</i> , to trace back to primary ancestors who lived on the land.
Aotearoa	<b>(location)</b> North Island - now used as the Māori name for New Zealand.
Awa	<b>(noun)</b> river, stream, creek, canal, gully, gorge, groove, furrow.
Hapū	<b>(noun)</b> kinship group, clan, tribe, subtribe - section of a large kinship group and the primary political unit in traditional Māori society. It consisted of a number of <i>whānau</i> sharing descent from a common ancestor, usually being named after the ancestor, but sometimes from an important event in the group's history.
Hau kāinga	<b>(noun)</b> home, true home, local people of a <i>marae</i> , home people.
Hauora	<b>(noun)</b> health, vigour.
Hīkoi	<b>(verb)</b> (-tia) to step, stride, march, walk.
Hui	<b>(noun)</b> gathering, meeting, assembly, seminar, conference.
Iwi	<b>(noun)</b> extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory.
Kai moana	<b>(noun)</b> seafood, shellfish.
Kaiako	<b>(noun)</b> teacher, instructor.
Kaimahi	<b>(noun)</b> worker, employee, clerk, staff.
Kāinga	<b>(noun)</b> home, address, residence, village, settlement, habitation, habitat, dwelling.
Kaitiaki	<b>(noun)</b> trustee, minder, guard, custodian, guardian, caregiver, keeper, steward.
Kaitiakitanga	<b>(noun)</b> guardianship, stewardship, trusteeship, trustee.
Kanohi ki te kanohi	<b>(stative)</b> face to face, in person, in the flesh.
Kaumātua	<b>(noun)</b> adult, elder, elderly man, elderly woman, old man - a person of status within the <i>whānau</i> .
Kaupapa	<b>(noun)</b> topic, policy, matter for discussion, plan, purpose, scheme, proposal, agenda, subject, programme, theme, issue, initiative.
Kawa	<b>(noun)</b> marae protocol - customs of the marae and <i>wharehau</i> , particularly those related to formal activities such as <i>pōhiri</i> , speeches and <i>mihimihi</i> .
Ko wai ahau?	
Koha	<b>(noun)</b> gift, present, offering, donation, contribution - especially one maintaining social relationships and has connotations of reciprocity.
Kohanga reo	<b>(noun)</b> Māori language preschool.
Kōrero	<b>(verb)</b> (-hia,-ngia,-tia) to tell, say, speak, read, talk, address. <b>(noun)</b> speech, narrative, story, news, account, discussion, conversation, discourse, statement, information.
Kōrero tuku iho	<b>(noun)</b> history, stories of the past, traditions.
Koroheke / Koroua	<b>(noun)</b> elderly man, elder, grandfather, granduncle.

Kuia	<b>(noun)</b> elderly woman, grandmother, female elder.
Kurī	<b>(noun)</b> dog, animal with four legs, quadruped.
Mahinga kai	<b>(noun)</b> garden, cultivation, food-gathering place.
Mana whenua	<b>(noun)</b> territorial rights, power from the land, authority over land or territory, jurisdiction over land or territory - power associated with possession and occupation of tribal land.
Māra kai	<b>(noun)</b> food garden.
Māra rongoā	<b>(noun)</b> medicine garden
Marae	<b>(noun)</b> fenced-in complex of buildings and grounds that belongs to a particular iwi (tribe), hapū (sub tribe) or whānau (family).
Marae ātea	<b>(noun)</b> courtyard - open area in front of the <i>wharehui</i> where formal welcomes to visitors takes place
Matakite	<b>(noun)</b> prophecy, prophet, seer, clairvoyant, special intuition.
Mātauranga	<b>(noun)</b> knowledge, wisdom, understanding, skill - sometimes used in the plural.
Maumahara	<b>(verb)</b> (-tia) to remember, recall, recollect, reminisce.
Mauri	<b>(noun)</b> life principle, vital essence, special nature, a material symbol of a life principle, source of emotions - the essential quality and vitality of a being or entity. Also used for a physical object, individual, ecosystem or social group in which this essence is located.
Moana	<b>(noun)</b> sea, ocean, large lake.
Moemoeā	<b>(verb)</b> to have a dream, have a vision. <b>(noun)</b> dream, vision.
Moko kauae	<b>(noun)</b> female chin tattoo
Motu	<b>(noun)</b> island, country, land, nation, clump of trees, ship - anything separated or isolated.
Noa	<b>(stative)</b> be free from the extensions of tapu, ordinary, unrestricted, void.
Noho	<b>(verb)</b> (nōhia,-ngia) to sit, stay, remain, settle, dwell, live, inhabit, reside, occupy, located.
Ōhākī	<b>(noun)</b> dying speech, parting wish, last words, deathbed speech - final instructions before death.
Pā	<b>(noun)</b> fortified village, fort, stockade, screen, blockade, city (especially a fortified one).
Pā harakeke	<b>(noun)</b> flax bush, generations - sometimes used as a metaphor to represent the <i>whānau</i> and the gene pools inherited by children from their two parents and the passing of attributes down the generations.
Pakihiwi ki te pakihiwi	<b>(stative)</b> shoulder to shoulder
Papakāinga	<b>(noun)</b> original home, home base, village, communal Māori land
Papatūānuku	<b>(personal name)</b> Earth, Earth mother and wife of Rangi-nui - all living things originate from them.
Pēhi	<b>(verb)</b> (-a,-ngia,-tia) to press down, oppress, repress, suppress.
Pouwhenua	<b>(noun)</b> post marker of ownership, boundary marker, land marker post, land symbol of support - post placed prominently in the ground to mark possession of an area or jurisdiction over it.
Rangatahi	<b>(noun)</b> younger generation, youth.
Rangatiratanga	<b>(noun)</b> chieftainship, right to exercise authority, chiefly autonomy, chiefly authority, ownership, leadership of a social group, domain of the <i>rangatira</i> , noble birth, attributes of a chief.



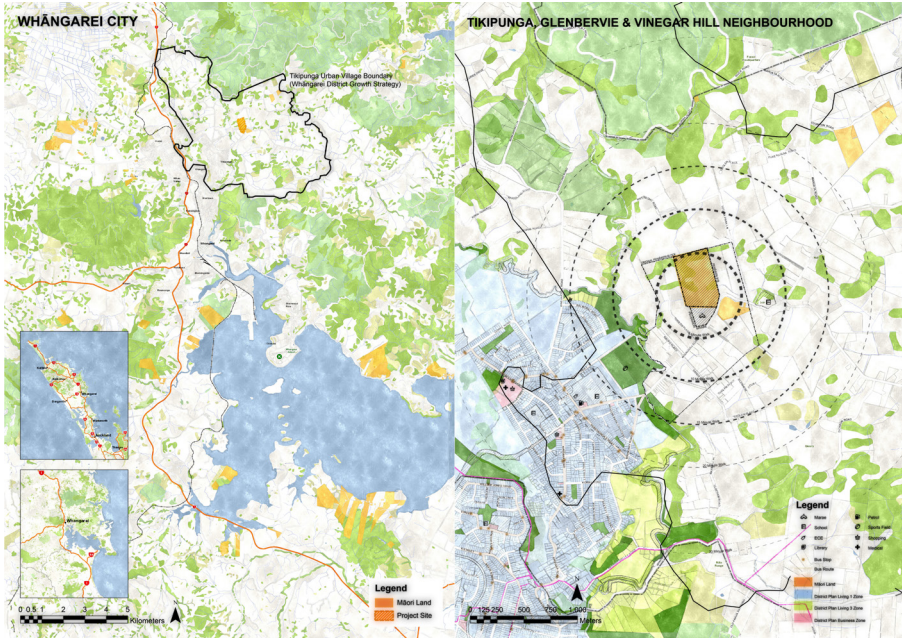
Repo	<b>(noun)</b> swamp, bog, marsh.
Rohe	<b>(noun)</b> boundary, district, region, territory, area, border (of land).
Taiao	<b>(noun)</b> world, Earth, natural world, environment, nature, country.
Tāmaki Makaurau	<b>(location)</b> Auckland Isthmus, Auckland.
Tamariki	<b>(noun)</b> children - normally used only in the plural.
Tangata whenua	<b>(noun)</b> local people, hosts, indigenous people - people born of the whenua, i.e. of the placenta and of the land where the people's ancestors have lived and where their placenta are buried.
Taonga	<b>(noun)</b> treasure, anything prized - applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas and techniques.
Tapu	<b>(stative)</b> be sacred, prohibited, restricted, set apart, forbidden, under <i>atua</i> protection
Te Ao Māori	<b>(noun)</b> the Māori world
Te Tiriti o Waitangi	<b>(noun)</b> the original Māori language version of an agreement made between Māori and the British Crown in 1840.
Tiaki	<b>(verb)</b> (-na) to guard, keep.
Tika	<b>(stative)</b> be correct, true, upright, right, just, fair, accurate, appropriate, lawful, proper.
Tikanga	<b>(noun)</b> correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention, protocol - the customary system of values and practices that have developed over time and are deeply embedded in the social context .
Tino rangatiratanga	<b>(noun)</b> self-determination, sovereignty, autonomy, self-government, domination, rule, control, power.
Tohu	<b>(noun)</b> sign, mark, symbol, emblem, token, qualification, cue, symptom, proof, directions, company, landmark, distinguishing feature, signature.
Tohunga	<b>(noun)</b> skilled person, chosen expert, priest, healer
Tomokanga/waharoa	<b>(noun)</b> entrance, opening, entry foyer, gateway, entry, portal.
Tūpuna	<b>(noun)</b> ancestors, grandparents
Tūrangawaewae	<b>(noun)</b> domicile, standing, place where one has the right to stand - place where one has rights of residence and belonging through kinship and <i>whakapapa</i> .
Ūkaipō	<b>(noun)</b> origin, real home.
Urupā	<b>(noun)</b> burial ground, cemetery, graveyard.
Uta	<b>(location)</b> shore, ashore, land (from a sea or water perspective), inland (from a coastal perspective), interior (of a country or island)
Wahine	<b>(noun)</b> woman.
Wāhi tapu	<b>(noun)</b> sacred place, sacred site - a place subject to long-term ritual restrictions on access or use, e.g. a burial ground, a battle site or a place where tapu objects were placed.
Wai	<b>(noun)</b> stream, creek, river.
Waiata	<b>(noun)</b> song, chant, psalm.
Wānanga	<b>(verb)</b> (-hia,-tia) to meet and discuss, deliberate, consider. <b>(noun)</b> tribal knowledge, lore, learning - important traditional cultural, religious, historical, genealogical and philosophical knowledge.
Wawata	<b>(noun)</b> yearning, aspiration, hope, dream.

Weri	<b>(noun)</b> centipedes of various species.
Whakaaro	<b>(noun)</b> thought, opinion, plan, understanding, idea, intention, gift, conscience.
Whakapapa	<b>(noun)</b> genealogy, genealogical table, lineage, descent
Whakataukī	<b>(noun)</b> proverb, significant saying, formulaic saying, cryptic saying, aphorism. Like <i>whakatauākī</i> and <i>pepeha</i> they are essential ingredients in <i>whaikōrero</i> .
Whānau	<b>(noun)</b> extended family, family group.
Whānaunga	<b>(noun)</b> relative, relation, kin, blood relation.
Wharau	<b>(noun)</b> temporary shelter, booth, shed.
Whare	<b>(noun)</b> house, building, residence, dwelling, shed, hut, habitation.
Whare pora	<b>(noun)</b> house of weaving, weaving school.
Whare tūpuna	<b>(noun)</b> ancestral house – another word for wharehui/wharenui.
Whare whakairo	<b>(noun)</b> carved house, meeting house.
Wharehui/wharenui	<b>(noun)</b> meeting house, large house - main building of a marae where guests are accommodated.
Whareiti/Wharepaku	<b>(noun)</b> toilet, lavatory, ablutions.
Wharekai	<b>(noun)</b> dining hall.
Whare karakia	<b>(noun)</b> church (building), synagogue, house of prayer - a building for religious services.
Whare waka	<b>(noun)</b> canoe shed.
Whenua	<b>(noun)</b> land - often used in the plural.

Appendix Two: Final Presentation Drawings

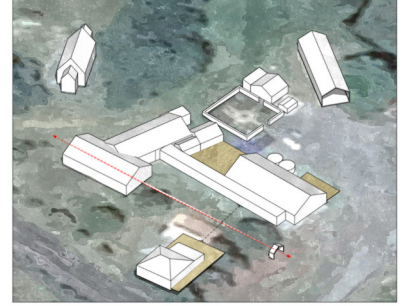
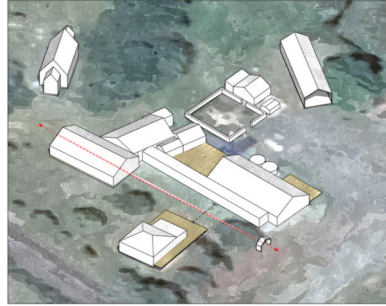
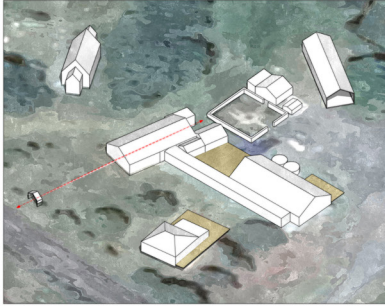




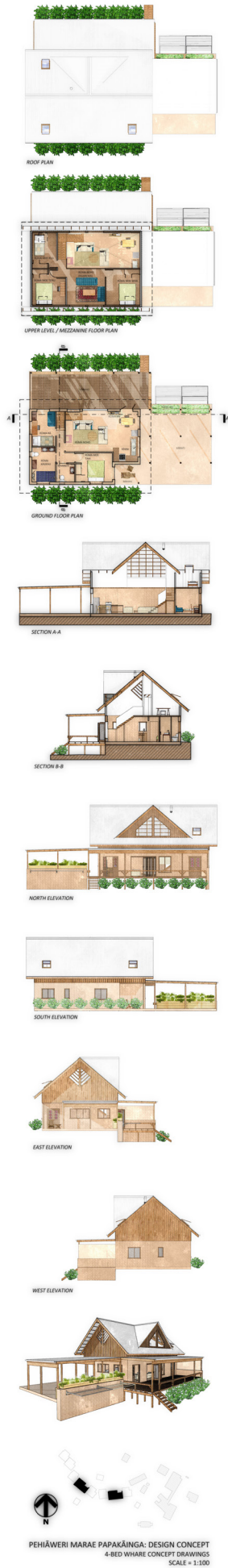


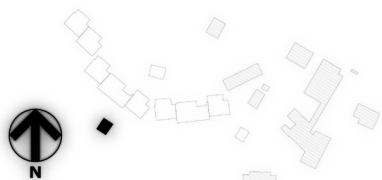
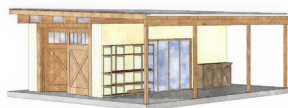
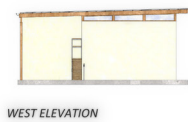
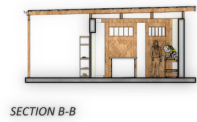
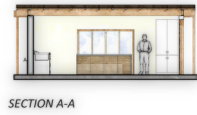
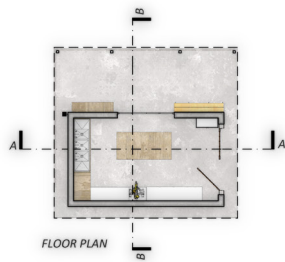




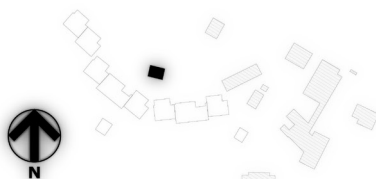
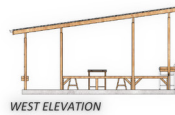
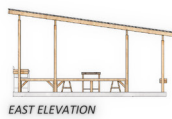
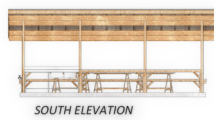
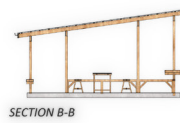
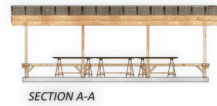
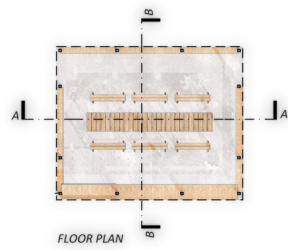




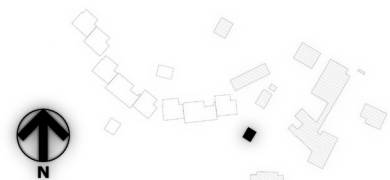
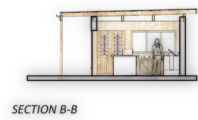
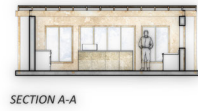
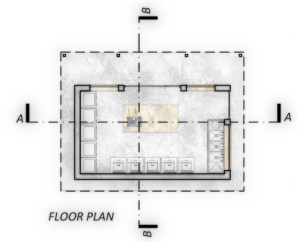




PEHIĀWERI MARAE PAKAKĀINGA: DESIGN CONCEPT  
WORKSHOP CONCEPT DRAWINGS  
SCALE = 1:100



PEHIĀWERI MARAE PAKAKĀINGA: DESIGN CONCEPT  
WHARAU CONCEPT DRAWINGS  
SCALE = 1:100



PEHIĀWERI MARAE PAKAKĀINGA: DESIGN CONCEPT  
LAUNDRY CONCEPT DRAWINGS  
SCALE = 1:100







