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Chapter 5

Indigenous Cultural Knowledge for Therapeutic Landscape Design

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ABSTRACT

The meanings of place and the relationship between place and health have culturally specific dimensions. This is of particular importance for indigenous people and communities as often regarding landscape as part of a circle of life, establishing a holistic perspective about health and wellbeing. The indigenous Māori of Aotearoa/New Zealand contend that their relationship with the land shapes how the cultural, spiritual, emotional, physical, and social wellbeing of people and communities are expressed. Few studies have explored the influence of the cultural beliefs and values on health, in particular the intricate link between land and health. This chapter broadens the understanding of therapeutic landscapes through the exploration of specific cultural dimensions. It contributes to the expanding body of research focusing on the role of therapeutic landscapes and their role in shaping health, through the development of new research methods.

INTRODUCTION

Increased globalization has contributed to a rapid increase in the impact of human activity. To date, the best endeavors of conservation of natural resources have failed, extinction rates are escalating, and pressures on biodiversity are also increasing (Mace, 2014). As the costs of environmental mismanagement continue to accumulate, awareness of the consequences of habitat destruction, overharvesting and

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invasive species become overwhelmingly evident (Mace, 2014; Ruddick, 2015). The realization that nature provides crucial and irreplaceable goods and services has been consistently ignored by Western civilization.

In Aotearoa/New Zealand, where biculturalism has emerged as a viable organizing national ideology, the role of the landscape is highly contested. The indigenous Māori of New Zealand contend their relationship with the land in shaping how the cultural, spiritual, emotional, physical and social well-being of people and communities are expressed. The combination of a dominant culture of non-indigenous people of European descent with a highly urbanized society has resulted in the deterioration of the environment and with it a loss of the minority Māori cultural values concerning the landscape.

For Māori, identity is rooted in landscape. An interconnected cultural and ancestral history shared through the landscape (*whenua*) determines an individual's place in the world. Traditional Māori *tikanga* (customs and traditions) imparts an inherent connectedness to landscape, where self is literally a part of landscape and land comprises not only the physical realm but also social, ancestral and psychological attributes (Mark & Lyons, 2010). The landscape is part of a circle of life, establishing a holistic perspective concerning the relationship between health and well-being, and celebrating the spiritual and natural history gained over centuries. If the landscape is healthy, the people are healthy and healing the individual means healing the earth.

This chapter focusses on the *Mātauranga* Māori process (Māori knowledge) of investigating landscape relying on the past, present and future to better understand the importance of landscape and the therapeutic values imparted through the four pillars of Māori health and well-being, generally known as *Te Whare Tapa Whā* (Ministry of Health Manatū Hauora, 2017). The research methodology is transformative in its acknowledgment of the potential of indigenous knowledge and culture in healing the environment. It contributes to the expanding role of therapeutic landscapes in shaping physical, emotional, mental and spiritual health. It also highlights the potential to revolutionize aged-care as it challenges the ways aging is managed through individual and social empowerment.

BACKGROUND

To understand the relationship between nature and health in a bicultural country, first, it is important to understand the significant differences between Western and Māori philosophies concerning health and well-being. Western medicine views the mind and body as separated into two different entities (Baker & Morris, 1996; Descartes, 1984; Zaner, 1988). When the body becomes sick such as through a broken limb or a disease, the body must be repaired. However, if the condition relates to something derived from the 'head,' then the problem is more likely to be viewed as a flaw in the individual's character. For Māori, conditions such as anxiety and broken bones are both equally real and occur in the same unified body and mind. Māori traditions view the mind and body as one life force, and when one gets sick, the whole being feels it (Crengle, 2000; Henry & Pene, 2001; Panelli & Tipa, 2007). These differences have directed the evolution of both Western and Māori health constructs and impact directly on how patients are perceived and treated. Western medicine treats the physical body seeking to fix the precise problem presented. If the body is missing a substance, the western approach is to supply it. As a result, medical science has evolved through refining and fixing with better drugs and more advanced surgical technologies. In the landscape architecture literature, current theories and conventional practice

concerning disability are often aligned in their intention to finding the most accessible and easiest route as an obvious design solution. This has led to the concept of ‘ableism’ within the design, a technique that ultimately separates abled and disabled communities due to their contrasting needs within a space. However, the western mind/body split is not a scientific fact, it is a simplification based on cultural assumptions (Duncan, 2000; Henry & Pene, 2001; Panelli & Tipa, 2007) and nature does not appear to recognize this split.

There has been accumulated multidisciplinary research interest in the therapeutic effects of nature since 1970s, including medical geography (Gesler, 2003), environmental psychology (Kaplan & Kaplan, 1989; Kaplan, 1992; Ulrich, 1984; Ulrich, 1999), ecological psychology (Moore & Cosco, 2010; Wang & Li, 2012), and horticultural therapy (Detweiler et al., 2012). In the West, research from the mid-1980s has indicated that gardens, parks, and landscape areas have beneficial effects on human health and well-being (Annerstedt & Waehrborg, 2011; Ulrich et al., 1991; Wilson, 1984). More recently, the term “healing garden” has been widely recognized, referring to green outdoor spaces in healthcare facilities that provide a chance of stress relief for patients, staff and families (Gharipour & Zimring, 2005; Lau & Yang, 2009; Szczygiel & Hewitt, 2000). Similarly, in the East a focus on sustainability and recent movement from pharmaceutical remedies to more natural and environmental medicine is an emerging trend, leading into the possibilities of the recuperative rehabilitative possibilities in the landscape (Zhang, Wu, & Xiao, 2009). Finally, in indigenous cultures, nature has been acknowledged as a powerful healing source and as a resource for rehabilitation (Henry & Pene, 2001; Jakobsson, 2009; Marcus & Barnes, 1999).

There is a general lack of understanding and knowledge on how to incorporate Māori processes and principles into landscape design (Te Aranga, 2008). The Māori maintain that illness begins in the *mauri* (life force) that surrounds the body and is ultimately expressed in the physical body (Henry & Pene, 2001; Panelli & Tipa, 2007). When all four domains are not present, the Māori approach is to stimulate the body to heal itself and be able to replace what is missing. Landscape, culture, and health are thereby complexly linked (Wilson, 2003) and the significance of human-landscape specificity is clear where particular relations-with and understandings-of the wider environment affect people’s life and their well-being (Panelli & Tipa, 2007). The implications of this philosophy when applied to the design of landscape are extensive. Strategies of outdoor controlled difficulty, for example, can challenge and strengthen users in the improvement of their health. The potential for landscape intervention in early detection and assisted diagnosis is also relatively unexplored as is the potential for independent access. For these reasons, evidence-based design is increasingly important as a methodology in therapeutic landscape design. This chapter proposes a research methodology to address this shortfall.

EXPLORING MEDICAL PARADIGMS

To counter the dominance of the western medical paradigm, an examination of its historical roots and consequences is necessary. This becomes useful for comparison to the revival of Māori principles and provides direction for strategies that can adjust the balance. It also helps to explain the significance of the disconnection from the landscape inherent with the current era of mass global migration and increased urbanization (Ruddick, 2015). This research methodology points to the importance of a holistic view which includes the landscape and the means of finding a connection without losing cultural identity, for all people.

Dominance of the West

English Captain James Cook first arrived in New Zealand in 1769. He estimated the Māori population at that time to be approximately 100,000 individuals. Within the century, Māori numbers declined due to introduced diseases and the effects of war; while the European population rapidly increased. By the end of the nineteenth century, the early population of 2,000 Europeans had grown to 670,000 individuals while the Māori population had declined by an estimated 30% (Brooking, 2004). By 1840 European settlement became a certainty and to secure the future, a treaty was signed between the Crown and the Māori tribes which was meant to protect ancestral lands and their native natural resources but also to formalize European sovereignty. The *Te Tiriti o Waitangi* (Treaty of Waitangi) enshrined New Zealand as a bicultural country. While theoretically an important foundation document, its implementation was fraught with difficulty and the resulting enactment of its governing principles were led by Europeans to the detriment of the Māori. By the beginning of the twentieth century, Māori lived predominantly in rural settings, and only 15.6% of their population resided in urban areas (Statistics New Zealand, 2004). By contrast, Europeans settled largely in towns and cities only lightly populating the rural areas sufficiently to maintain the dense agricultural cultivation and farming which supported trade.

By the beginning of the 21st century, this situation was completely reversed where today more than 85% of Māori are living in urban centers (Meredith, 2000). The combination of loss of land and its meanings with the migration from ancestral lands to urban areas have contributed to a widespread disconnection for Māori from their *tūrangawaewae* (domicile where one has a genealogical right to ‘stand’) or *whenua* (land) (Garlick, Keane, & Borgfeldt, 2010). Urban living for Māori provided employment, housing and education, however, the urban centers did not cater for places of refuge and identity which in turn disenfranchised the Māori from the traditional ways that communities and family settled within the landscape.

The loss of Māori culture continues to concern *hapori* (communities), *iwi* (tribe) and *hapu* (sub-tribe) and increasingly the central government. Traditional values of Māori are deeply rooted in the *whenua* (landscape) where everything is connected by *mauri* (the life-force of all things) intertwining and establishing identity and place in the world (Russell, Smiler, & Stace, 2013). “*They form the basis for the Te Ao Māori (Māori worldview) and provide the concepts, principles, and lore Māori use to varying degrees in everyday life, and often to form ethics and principles*” (Harmsworth & Awatere, 2013, p. 275). Governments and universities are seeking to integrate Māori concepts and values culturally, economically, ecologically and socially to regain language, traditions, and beliefs, in order to re-establish the *mana* (spiritual power) between people and place.

Revival of Māori Principles

Within Māori communities historically the gathering of food, cultivation of crops and immersion with the native landscape were the primary means of social collaboration. Communities were developed through groups of family units into *hapu* (sub-tribes) which formed economic and political centers. It was not until European settlement these *hapu* were collected into larger groups and amalgamated into *iwi* (tribes) (Ballara, 1998). *Iwi* then became the principal community. These centers were led by a *rangatira* (chief) whose leadership and lineage could be traced back to their first arrival in New Zealand. Māori leadership and kinship principles have proved to be resilient, flexible and adaptable, (Consedine, 2007) and still today, most Māori can trace their *whakapapa* (lineage) back to their ancestral canoe. However, despite

this larger grouping of Māori peoples, the influences of western culture still unsettled the natural and collective order, diminishing identity of self and place with relation to the landscape.

To address national goals of biculturalism and indeed in honoring the basic tenets of *Te Tiriti o Waitangi* (Treaty of Waitangi), Māori culture must be not only recognized and re-established but fully integrated into all aspects of society in a manner that is respectful and meaningful for both cultures. Some of the Māori principles that have been introduced into New Zealand's urban management embrace *rangatiratanga* (chieftainship), *kaitiakitanga* (guardianship), *manaakitanga* (hospitality and kindness), *wairuatanga* (spirituality), *kōtahitanga* (unity), *whanaungatanga* (kinship) and, more importantly, *mātauranga* (knowledge) reconnecting ideologies of the *Te Ao Māori* (Māori worldview). These *tikanga* based principles have begun to reconnect Māori to the land and community through concepts of *papakāinga* (original home, communal land-use, shared housing) (Stuart & Thompson-Fawcett, 2010).

Mātauranga Māori: Need for Balance

Mātauranga Māori is defined in the traditional context as all things linked as one, where knowledge, comprehension or understanding of everything visible and invisible exists across the universe (Marsden 1988), systematically including the ways of knowing and doing. It is the intricacies of holistic and interconnected relationships to the natural world. Mātauranga Māori can also be defined simply as 'wisdom' which descends from the predecessors through *whakapapa* (lineage) (Goodall, 2016; Harmsworth & Awatere, 2013).

Whakapapa refers to the transmission of knowledge through generations, not just of history and those things human but also the creation and evolution of all living creatures and non-living elements (Karetu, 1992). '*Papa*' is the concept of something flat (like the ground), where '*whaka*' is the overlaying of layers upon another, thus building layers of spiritual and human stories of both the seen and unseen. Existence transcends through intergenerational heritage and identity, which all link back to the landscape from which life is formed by *Papatuanuku* (Earth-Mother) and *Ranginui* (Sky-Father) back to the Supreme Being *Io* (Garlick et al., 2010)

Mātauranga Māori forms the central pillar of the Māori worldview encompassing all aspects of beliefs, values, language, methods, technologies, and practices (Harmsworth & Awatere, 2013), which over thousands of years have been handed down through intergenerational oral practices. Relevant understanding of traditional knowledge and beliefs continue to shape the ways Māori think and interact in *Te Ao Māori*. *Te Ao Māori* (Māori worldview) acknowledges the need for balance or equilibrium in the order of the universe. When one part of this system shifts, the entire system is put out of balance (Harmsworth & Awatere, 2013). All things living and non-living are part of a wider complex spiritual and technical system that is inseparable. For this reason, impacting the environment has a deep effect on the dependencies of people and place.

For Māori and indigenous cultures alike, the shift in the worldview has dramatically and detrimentally shaped their health and well-being. For example, recent census and survey data find that a significantly higher percentage of Māori are living in the most deprived areas and that Māori have higher than average disability rates (McIntosh & Leah, 2017). Historically, completely reliant on the landscape as a source of flora and fauna for health and well-being, the Māori people nurtured and cared for the landscape, living healthfully and settling in abundant ecologies. Māori lived with sustaining ecosystems for centuries where settlements founded land, shelter, food, water to benefit self and nature (Harmsworth & Awatere, 2013).

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The effects of western culture heavily impacted the way Māori lived and viewed the world. Western cultural views are based on the sense of ‘self’ or individualism, “I think, hence I am” (Descartes, 1850, p. 75) whereas Māori have regard to the ideal of ‘belonging’ which is defined by the interconnected relationship of people and place. Western influences heavily damaged natural and spiritual systems eradicating traditional practices, beliefs and knowledge. Colonized settlements required and in many cases occupied a larger consumption of ancestral land for urban and industrial systems, removing the natural therapeutic resources and spiritual linkages held by Māori. The removal of ecosystems and the links to the landscape prompted a decline in Māori health through mental, spiritual, physical and social contexts. With the revival of Māori *tikanga* (principles), the need for greater representation of Māori ideas is fundamental in creating the balance demanded by biculturalism.

A Culture of Connectedness in Times of Disconnection

Inclusive Māori environmental values illustrate how *whakapapa* (lineage) reference systems denote a shared genealogy and connectedness between spiritual entities, animals, plants and humankind, which can be more easily understood through language. This extends to *whānaungatanga*, the kinship ties between people and entities, and their sense of belonging and inter-relatedness to place and natural resources.

In her thesis titled *Hei Whenua Ora*, Smith defines the important Māori principles:

Wairuatanga is about the respect given to the spiritual aspects that existed and remain within lands and waterways. Manaakitanga is the environmental value that protects and cares for resources for associated human sustenance and their well-being. Rangatiratanga recognizes how iwi and hapū authority leads the decision-making processes over tribal areas. Rangatiratanga is the value closely aligned to mana whenua as authority over lands and mana moana as authority over waterways and sea. Mauri, as the ultimate vitality of ecosystems and resources was ascertained by knowing the extent of pollution in an ecosystem, the levels of abundance present and its regenerative capacities. Kōtahitanga announces the coming together of people in respect of each other, as relations who recognise everyone’s individual differences, and the desires of consensus, unity and solidarity as a collective. (Smith, 2007, p. 80). Spiritual beliefs appropriately honour a sense of sacredness, prohibition, and the protection of the energy or life-force within everything. Kaitiakitanga is expressed through everyday environmental activities from the most sacred or tapu aspects of Māori spirituality, to simple acknowledgement of codes of behaviour associated with manaaki, tuku and utu as respect, reciprocity and obligation to the natural world. (Smith, 2007, p. 77)

These terms show the connection between knowledge systems and the natural environment, and express the value of *tau utu utu* or reciprocity, by giving back to the land in return (Harmsworth, Barclay-Kerr, & Reedy, 2002b; Smith 2007). A series of Māori *kaupapa* (principles) inherited from the *tūpuna* (ancestors) to enhance the relationships with one another and those with whom they work jointly to seek to achieve the aspirations of *iwi* and *hapū* about environmental and human well-being (Te Aranga, 2008).

Re-Connecting Without Losing Identity

Māori connect with earth and sky, the elements and the seasons which underpin the stories that explain the origins of their community. These narratives are adapted to the lands Māori have occupied since

ancient times and provide the foundations of their oral culture. In this context, living with nature implies the guardianship of both land and people and places are seen as sacred. They may be considered seats of power or guardianship, related to journeys associated with spiritual beings, or inhabited by entities that must be appeased. For Māori, the preservation of their intergenerational structure is crucial to the passing of knowledge and with it the passing of ideas of sustenance and stewardship towards the landscape. The combination of social, cultural, economic and ecological factors aims to benefit and support both land and its people.

Māori view the landscape as part of their being; it links the dynamic components of place where life depends on the nurturement and management of the natural environment. The landscape is the provider of life where humans obtain tools and basic materials, as well as health and social relations to achieve the interdependency between human and ecosystems comprised by *manaaki whenua* (caring for the land) and *manaaki tangata* (caring for the people) (Harmsworth & Awatere, 2013).

In the last twenty years, there has been a powerful resurgence of Māori identity in New Zealand and with it a revival of cultural forms which had been on the verge of becoming extinct (Kolig, 2000). Post-colonial feelings of guilt and anti-colonialism sentiments have engendered intercultural equality and respect (Gellner, 1992). These, combined with “fashionable New Age values – such as a new admiration for traditional (or ‘tribal’) knowledge, and respect for ‘tribal’ (or traditional) values, romantically admired now as healthier, sounder, environmentally friendlier, and truer to human nature than modern Western culture” (Kolig, 2000, p. 246) –, have created an opportunity for a bicultural re-connection with landscape without any loss of identity.

DEVELOPING A METHODOLOGY OF MĀTAURANGA MĀORI

A research methodology is a theory and analysis of how research does or should proceed... within an indigenous framework, methodological debates are those with broader politics and strategic goals of indigenous research. It is at this level that researchers have to clarify and justify their intentions... Indigenous methodologies are often a mix of existing methodological approaches and indigenous practices. (Smith, 1999, p. 239).

Māori are concerned about the accountability of researchers, and who or what controls the creation and distribution of knowledge about Māori (Bishop, 1996). As directed by the Te Aranga principles (2008), it is important to engage early and work closely with *mana whenua* (people of the land). For non-Māori academics, it is important that researching authors acknowledge any lack of indigenous heritage and recognize the commitment to support Māori research as Treaty of Waitangi partners. The authors write with an extensive reading on academic and non-academic *Māori* literature. They share extensive experience with participatory design working closely with *iwi* (tribes) in various regions; and they share interests and professional education in architecture and landscape architecture, having researched extensively on health issues in *Pakeha* (non-Māori), Māori and Pasifika forums. These experiences have provided the authors with an appreciation of Māori culture and place, including their relationships with health and well-being. Methodologically, it is important to ensure authenticity and accuracy through engagement with Māori designers and related professionals in the community of practice and peer-review by the indigenous group represented. As a result, this chapter has been peer-reviewed by Māori academics and government bodies representing a wide variety of *iwi* as noted in the acknowledgments.

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Traditionally knowledge was obtained only by a few such as *tohunga* (skilled person, chosen expert, priest) and *ariki* (chiefs, leaders) between the physical and spiritual realms of heaven and earth, where the methods subdued remained sacred and required protection (Mead, 2003). Mātauranga Māori has developed through the ancestral bonds linking people and environment (Harmsworth & Awatere, 2013) based on values and connectedness (Perrot, 2016). For Māori, knowledge of the natural world such as earth, seas and skies provided their great success as sea voyagers, establishing and adapting to new climates and environments in the Pacific (Garlick et al., 2010). Knowledge was traditionally guarded by elders and comprised a mixture of cosmogony, cosmology, mythology, religion, and anthropology (Marsden, 1988). Unlike science-based systems, Mātauranga Māori depicts ecosystems, not as quantitative mechanical machines but rather infused with spirit and life-force (*mauri*) (Perrot, 2016). Mātauranga Māori is now making a shift into the twenty-first century growing from the contemporary past (cultural, historical, local and regional Māori knowledge) into a much broader appreciation. It can be viewed as a dynamic way of thinking about the evolving knowledge that is represented in the natural and cultural heritage. “As *kaitiaki* (guardians), the *mana whenua* (people of the land) have a custodial responsibility for places of cultural significance ... as well as having a responsibility for all public spaces and spaces in private ownership, particularly where development may threaten the well-being of the wider environment.” (Te Aranga, 2008, p. 5).

To ensure the respect of cultural values, a set of strategies were developed to influence and shape the design of cultural landscapes, which have been embedded in Te Aranga Maori Cultural Landscape Strategy. The core values that underlie this traditional knowledge has been summarized in seven principles (Smith, 1999), connecting the understanding of Māori well-being models with structure.

1. **Respect for People:** Historical accounts validate the core values of integrity between man and nature.
2. **Face-to-Face:** Explores sharing traditional knowledge and practices passed down through the generations.
3. **Look, Listen, Speak:** Challenges preconceived ideas; elaborating, reiterating and opening up to the natural order of the living world for the progression of future connections.
4. **Share and Care for People:** Following the Māori constructs of *kaitiakitanga* (guardianship) and *manaakitanga* (hospitality) to ensure land and people are treated for the betterment of human well-being.
5. **Be Generous and Cautious:** Accepting the differences between cultures and environments, balancing this with inter-relationships to guide and support the ambitions of environmental and human measures.
6. **Do not Trample Over:** The mana/authority of people reminds that the spiritual connection links altogether and hence stepping on someone’s mana will affect self-mana.
7. **Do not Flaunt Knowledge:** It is a treasure which belongs to individuals who further knowledge growth.

These concepts which underpin Māori methodologies, provide a platform which can inform the design methodology for therapeutic landscapes. Reflecting the cultural and layered identity of the past and present, which provides a strong preparation for future adaptation.

Therapeutic Landscapes: Interconnectedness of Traditional Knowledge

The answer to the growing problems that our planet faces will not be found in technology, or modern computer backed scientists. The answer is to be found in the teachings of our ancestors. We need to learn again to care for the earth, and she will be able to care for us. (McGowan, 2015, p. 15)

Whenua provided Māori a context upon which to ground and reiterate the interconnection between human being, environment and well-being. As living with nature implies the guardianship of both land and people, places are seen as sacred (Menzies, Renata, & Whaanga-Schollum, 2016). Creating places where people can connect with the landscape is thereby crucial for the development of health and well-being, for both Māori and non-Māori. The therapeutic measures of Māori are based on the well-being of a person's environment be it their *kāinga* (home) or *whenua* (land). While this is a core component of Māori identity, it is a spiritual component of many non-Māori. Focusing on therapeutic needs and values can combat and shape the way people and nature work and live together, similar to traditional ways. For Māori, the traditions of *tikanga* (protocols) are important as they are the customary ways of doing and acting. For non-Māori, cultural and therapeutic landscapes can be seen as a part of modern ways of living (Gesler, 1992).

Through understanding Māori therapeutic landscapes key concepts can be integrated into, and produce, meaningful and reflective landscapes. For non-Māori, the integration of therapy into the landscape is evident in sensory gardens, healing gardens and food gardens. However, for Māori, the ideals inherent in these therapeutic landscapes are not separate entities, but part of a wider holistic system that caters to people's senses, emotions, and values. For this reason, practice is inherently linked with the landscape. For example, Māori therapy seeks resources from the landscape in preparation for *haumiri* (therapeutic massage), *rongoā* (herbal remedies) and *honohono* (spiritual massage). These three important performative techniques form the foundation of the Māori therapeutic landscape (Hatton, Marques, & McIntosh, 2017; Mark & Lyons, 2010).

The concept of *haumiri* aims to balance the physical and mental energies (*mauri* and *wairua*) of a person's persona with the natural world. It can be induced through two forms of massage: *mirimiri* and *romiromi*. The knowledge of *haumiri* seeks to give the body freedom and increase the flow of energies to invigorate and protect (Mark & Lyons, 2010). Benefits of *haumiri* are relevant to the decline in Māori health and well-being where nature, people, and place are enclosed as one allowing mind, body, and soul to strengthen the immune system. This increases energy, releases toxins, helps with addictions (drugs and alcohol), increases circulation, stimulates the internal body, speeds the healing process and balances *mauri* and *wairua* (Mark & Lyons, 2010). Inspiration by the natural elements of water and earth are also evident in *haumiri*, where water represents the purity and cleansing of life and earth represented by heated rocks/stones in treatment. *Mirimiri* is described as the massage of soft-tissues providing therapeutic treatment for malfunctioning body systems (Mark & Lyons, 2010). *Romiromi* involves deep-tissue massage in the application of pressure, aiding the body in releasing and removing toxic build-up and waste which helps relief tensions, stress and pain (O'Connor, 2007). As such, *romiromi* is a way of obtaining greater mobility, vitality, and presence. *Haumiri* provides an active spiritual and physical process where the *Mātauranga* combines the experience of the natural environment with performative actions to achieve physical, spiritual and mental well-being.

Rongoā as a form of Māori healing that uses medicinal properties of plants is often involved as a way to connect to the elements. *Rongoā* it is not just about the manufacture of medicine, but also about

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the respect of the relationship between nature and man (McGowan, 2015). Drawing upon natural plants from the forest, waterways (wetlands and lakes), coastlines and oceans; Māori developed processes and created medicines to help a person's well-being whether it be damaged or ill. The bark, leaves, roots, berries, and branches were carefully harvested removing only what was needed, and ensuring that nature could continue to accommodate harvesting in the future. If anything was left it would return to the earth to begin a new cycle of life. In this way sustainability is a core component of traditional ways of thinking. The properties of rongoa healing extend beyond the physical and chemical properties to the connection of *mauri* of person, plant, and healer which are destined to be immersed together (Jones, 2000). Therapeutic landscapes, therefore, encompass a deeper meaning in reverence to rongoa as the encapsulation of ones being with nature and the transgression of healing one another.

Honohono establishes and uses the aura of people and environment for healing, representing the healing of a person's inner spirit and connecting them to the universe. It reflects the change in a person's persona and environment, clearing and assisting in the transition of a person's mind, body, and soul with placement in the world (the notion of place) (Te Pou o Te Whakaaro Nui, 2010). *Honohono* or spiritual healing may incorporate the use of the elements, earth, water, air, and fire to offer the body release and healing through spiritual visualization and non-physical immersion. Therapeutic landscape, therefore, transforms into a cosmological realm reconnecting people and landscape while acquiring the necessities to comply in the physical world. It has been compared with traditional Japanese and Chinese healing methods such as Reiki and Chi Kung (Qi Kong), which use vibrational energy techniques to balance the bodies' energy system. *Honohono* aims to balance the *mauri* and *wairua* where inner-self becomes important in revealing the sense of place and belonging (TuiOra, 2017).

Therapeutic landscapes benefit the health and well-being of people. Māori contend that landscape is therapeutic, cultural and ancestral representing the works between man and nature and containing the values of indigenous knowledge. Māori strategies for health and well-being transverse well beyond the caring of the landscape and its conservation, to relating them to peoples' inner self and being (the *mauri* or life force of the world). For Māori, healing is an active process conceived from the landscape through such practices of *haumiri*, *rongoā* and *honohono*, stimulating the body to heal itself and valuing the landscape as a key factor for its fulfillment.

Therapeutic Landscapes: Restoring the Land to Restore the People

The Western understanding of land and landscapes is based on a positivistic, scientific and utilitarian approach to the relation between people and land. Knowledge is seen as rational and goal oriented, and the world is understood as a single-layered construct of universal principles, where humans are superior to other living creatures, pursuing material assets (Jang, 2004). Similarly, restoration of natural systems has been driven by periodic fashions and has shifted significantly over the last decades. Prior to the 1960s, restoration was mainly understood as 'nature for itself,' prioritizing natural habits and wilderness areas without people following traditional concepts related to ecology and natural history. With the rapid development of society and urban sprawl (and with the depletion of natural resources and ecosystems), attention was given to conservation of protected areas, and protection of species, as well as the emergence of 'nature despite people', trying to reverse back the actions that devastated most of our ecosystems (Mace, 2014). By the late 1990s, a new understanding appeared accepting the benefits that nature and ecosystems can provide to the society, corroborated by the fact that former practices had failed in reducing habitat and biodiversity losses (Mace, 2014). These shifts allow movement from a

utilitarian perspective to something that is more holistic and recognizes the relationships between people and nature. This new thinking of 'people and nature' takes into account the importance of cultural values in the development of sustainable and resilient interactions between human societies and the surrounding environment (Mace, 2014). It also opens the door for an exploration of what it means to develop landscape in a bi-cultural context and the potential for multi-faceted understanding of man and nature as a union (Menzies et al., 2016).

When considering therapeutic landscapes, Māori look to the natural ecological environments (forests, waterways, and wetlands) as a medium for physical, emotional, mental and spiritual health and well-being. Māori strategies involve an inclusive "whole of landscape" approach known as "*ki uta ki tai*" (from the mountains to the sea). It is a philosophy that reflects on a system of environmental and resource management which celebrates guardianship and reflects the relationship of environmental heritage. As such, it encapsulates the needs to recognize and manage the interconnectedness of the whole environment celebrating culture and identity. Considering the intertwined relationship of man and environment, the idea of a therapeutic landscape is expanded to consider issues of history, culture, memory, and identity in light of their symbolic and applied roles in holistic health and well-being.

Practically, incorporating these intentions into landscapes requires the tranquil and serene setting which therapeutic landscapes provide. A reflection on past attributions and the stimulation of peoples' senses enables the forest to be experienced through sound, taste, sight, smell, and feel. Through the reviewing of traditional cultural and therapeutic landscapes, an adaptation of cognitive behavior of therapy for Māori can be applicable for indigenous cultures through multi-systematic therapy, family therapy, motivational interviewing and narrative therapy (Te Pou o Te Whakaaro Nui, 2010). These all connect to the oral traditions laid down over generations.

Health is not about medications, however, prepared, or how effective, it is about who we are and where we belong in the world (McGowan, 2010).

Māori models for therapeutic landscapes offer new ways in which one can develop and promote people's health and well-being. Influenced by the traditional practices of Māori (*Mātauranga*) and frameworks for traditional and cultural landscapes that are rich for restoration and preservation of identity through *kaitiakitanga*, *manaakitanga*, *whanaungatanga*, *wairuatanga*, *kotahitanga* with reverence to *tapu* and *noa* can be incorporated in the design of the landscape. The core concepts of Māori healing techniques embrace spiritual healing and the use of traditional practices to support the four pillars of Māori health values: *taha hinengaro* (psychological health), *taha tinana* (physical health), *taha wairua* (spiritual health) and *taha whanau* (family health). Landscapes can aid in the re-establishment of these life incentivizing traditions and intergenerational collaboration.

A FRAMEWORK FOR INVESTIGATION

For Māori, a sense of identity is not established by what a person does for a living, where they work or where they live. Identity is established through *whakapapa* (lineage) which is connected by *mauri* (life force) to the mountains, bodies of water and ancestral lands, and was regularly conveyed at community gatherings. However, with the separation from the land came a separation of the elders from the youth, which has interfered with the transfer of traditional oral knowledge. The loss of the traditions of story-telling, '*korero*,' has increased the reliance of the young on technology as a means of learning. The traditional Māori idea that people are born from the earth sets a foundation for the kinship between

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man and nature. From this understanding, practices evolved that established a tangible connection to the land and allowed people to reflect on their own identity and belonging to the world. For example, many Māori still practice ancient birthing rituals such as *tohi* which is similar to a baptism. This involves sprinkling water from a sacred stream onto a newborn child and dedicating the child to an *atua* (god). This is followed by the burial of the placenta in the ancestral lands of the *iwi*, often at the base of a marker tree, thereby linking the child to the tribal lands. Embracing these traditional values, re-instates *mana* (prestige/power) and *whenua* (land) of people and places. The Māori separate the environment into four related, yet unique, key concepts. These are the *whenua* (the land), the *te wao nui a tane* (the forest), *nga wai ora* (the water) and *te rohe koreporepo* (the wetlands). An understanding of these elements can aid in re-establishing environmental, social and cultural sustainability.

Whenua: The Land

The concept of *whenua* has many different meanings including land, country, ground, territory, and placenta. A Māori perspective of the landscape has a deeper meaning where land must be nurtured. The traditional way of thinking for many indigenous cultures means that everything in the world is connected like one vast family and nature is the ultimate teacher of life (Garlick et al., 2010). Landscape is imbued with metaphysical values (Kawharu, 2009) and is associated with communities through communal ancestry (Figure 1). Ancestral connection to landscape is ultimately valued through interpretation, heritage, identity, and status providing people linkage to their past and for their future (Kawharu, 2009). The therapeutic qualities of the landscape are hereby centralized around the cycle of life. If people and all things are related, then the requirements to consider care and emotions mark the notion of *mauri*, the essence of matter. If the landscape is sick then the inner well-being of all things become affected even that in people.

Figure 1. Whanganui Valley, North Island



Values and associated principles and practices around *whenua* can be referred to as *tapu* or *noa*. *Tapu* refers to the sacredness of all living things while *noa* is the opposite, permitting unrestricted activities. These deep meanings have long sustained the balance of traditional practices of Māori. Land provides the basic needs of living and therapy which sustains life, enabling people to explore, exploit, and manage the natural resources (Kawharu, 2009). Landscape is identified by the physical makeup of the land and the establishment of the settlement. By grounding personal identity, people's mental, physical, spiritual health are collectively rooted as an extension of the environment.

The close engagement between people and the environment is inseparable as there is no separation between the material and non-material, the tangible and intangible (Kawharu, 2009). The coupling of traditional knowledge and landscapes engages people and places, nourishing the health and well-being of both, taking therapy collectively to develop and maintain therapeutic relationships with *tangata whenua* (local people), *whanau* (family) and *mana whenua* (people of the land).

Te Wao Nui a Tane: The Great Forest of Tane

“Māori and plants have a common origin. Māori saw plants as having senior status. They are the link between man and sacred ancestors” (Garner, 2016, p.4). Before human settlement, the original indigenous forests made up around 81% of the natural landscape of New Zealand/Aotearoa and nurtured significant bio-diversities and cultural values (Ridley, Bain, Bulman, Dick, & Kay, 2000).

Forests were highly valued and were traditionally sought-out places that served as spiritual domain, supermarkets, schools, hospitals (chemist/medicine), and fostered *mana*/power, responsibility, spiritual relationship, *rangatiratanga*/chieftainship, well-being, and survival. Forests enabled Māori to experience and make sense of the world. Forests also enabled a comprehensive understanding of traditional knowledge of everything visible and invisible, of observing, studying and engaging in the wisdom of the natural environment (Manaaki Whenua Landcare Research, 2006). The therapeutic qualities allowed Māori to live as part of the natural environment through *whakapapa*, through containment of rare significant *taonga* (treasures) and repositories of culture.

With the establishment of the Europeans in New Zealand and the introduction of agricultural farming and urbanization, the rich forest ecosystem was severely diminished. Approximately 60% of the native forest was destroyed following colonization, and currently, only 23% of the original native forests remain (Ridley et al., 2000). Introduced human activities and exotic species have forced these remaining indigenous forests into steep, less productive and mountainous terrain unsuited for economic gain (Manaaki Whenua Landcare Research, 2006). Over time, the connection of people to the forest has waned, and the oral traditions have faded. Only a small portion of the traditional forest knowledge has survived (Figure 2).

However, a revival of traditional knowledge is beginning to occur. In traditional understanding, forests were sources of *mauri* (life force), *mana* (power) and *wairua* (spirit). They were also sources of food through the customary harvesting of native birds, fish and plants; and for materials used in the construction of buildings and carvings (*whakairo*). This links to ancestral beliefs in which the earthly and heavenly gods would provide and protect the natural environment through the notion of *mauri*. In these ways, therapeutic landscapes have always been considered by Māori as a means of lineage connecting all sources of life, reliant on the health and well-being of living things.

Figure 2. Egmont National Park, Taranaki



Nga Wai Ora: Living Waters

Waterways provided an abundance of life with food and purification both contributing to the well-being of people. In oral traditions, water is seen by some groups as the source and foundation of life, rather than the land (Garlick et al., 2010). For Māori, this is reflected through *wairua* which refers to the spiritual plane or may refer to the fundamental dimensions of all life in the form of water. Water and earth form the inseparable bond vital to sustain and balance the natural environment.

Traditionally, water has been classified in a number of ways: *waikino*, dangerous waters; *waitapu*, sacred waters; *waimāori*, pure water; *waitai*, seawater; *waimanawa-whenua*, water from beneath the land (springs); *waikarakia*, water for ritual purposes and *waiwhakaika* or *waikotikoti*, water to assist cutting of the hair (Garlick et al, 2010). Water is a precious source of life for all people. Māori lived and thrived near water as it sustained life. Some Māori, for example, those in geothermal areas around the central North Island, used the heated water, and hot-springs or geysers to bathe, cook and heal. The environment offered *hapu* (sub-tribes) and *iwi* (tribes) a close and distinctive knowledge of their surroundings. Water meets therapeutic needs in providing cleansing, purification and sustaining life. Sadly, the influx of urban settlement has led to negative effects on natural waterways. Many indigenous waterways are culverted, piped or redirected, destabilizing natural water catchments and flows. The scarcity of water and pollution of these systems are becoming more evident specifically with the depletion of lakes, springs, rivers, streams, and oceans.

For Māori, each body of water was considered to have its own life-force (Durie, 1994). Water for Māori through therapy was viewed sacred by cultural and therapeutic qualities and involved practices surrounding sickness; baptisms or enlightenment; birthing and pain. If two waterbodies contacted one

another, both were at risk of having their ecosystem equilibrium disturbed (Durie, 1994). The mixing of water or the division of waterbodies decreased the *mauri* in many places. These holistic views meant that for Māori a water environment needing restoration or rehabilitation needed its *mauri* enhanced (Harmsworth, 2002a). There is a discussion today on water treatment with the preference for impure water (mixed, polluted, land effluent or sewage) to be treated on land first rather than direct distribution into natural water ecosystems. By tackling these problems at the source, the betterment of people's well-being and health will enable both land and people to be sustained, and the integrity of the *mauri* in each water body maintained (Durie, 1994).

Te Rohe Koreporepo: Wetlands

Wetlands derive from spiritual beings like all-natural environments (Figure 3). The wetland systems play a key role in maintaining the integrity of the *mauri* of water bodies. They are highly valued by Māori and regarded as a *taonga* (treasure) as they were sources of food, traditional knowledge, and materials. For over 800 years human interaction with the wetlands created an active relationship with historical and cultural importance and values.

In areas of urban intensification, wetlands were drained in the creation of the urban infrastructure. Natural wetland systems lie beneath ever-growing cities, their important role in the natural landscape forgotten. For example, the area now occupied by Wellington, the capital city of New Zealand was once a flourishing wetland ecosystem surrounded by local *pa* settlements for whom the wetlands were a source of their therapeutic health and well-being.

Figure 3. The Pencarrow Lakes Wetlands, Lower North Island



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Wetlands are often the interface between terrestrial and freshwater ecosystems. For this reason, they have a valuable role as part of the entire catchment ecosystem, enhancing stream and river health and improving the *mauri* of waterways. Enhancing water ecosystems can help to re-establish traditional therapeutic values and enhance the deeper connection to the landscapes crucial to Māori culture. The idea of connectedness is an important underlying value that relates people to the environment, therefore increasing the health of the waterways through wetlands, fosters the health of people. If the landscape is healthy, the people are healthy, an important key value in this study.

Traditional Māori *tikanga* (customs and traditions) impart an inherent connectedness to landscape, where self is literally a part of landscape and land comprises not only physical characteristics but social, ancestral and psychological attributes. These ideas can be better understood through an exploration of land, forest, waters, and wetlands. Urbanization endangers the memories of the natural landscape and lacks the facilities for traditional cultural methods of healing to be undertaken. As a result, many cultural beliefs and oral traditions remain in isolation and out of reach. Incorporating therapeutic values from Māori into the wider community can allow a revision of current practice and the development of stronger (re)connections to the landscape.

SOLUTIONS AND RECOMMENDATIONS

The rapid progression and development of social and cultural change today lacks an ideology around people and place. ‘The term ‘*taonga tuku iho*’ articulates the desire of intergenerational equity with nature’s resources passing from one generation to the next (Harmsworth & Awatere, 2013). The idea is that the transfer of knowledge and nature should be passed on in a better or the same state in which it was left. Containment of identity is obtained through the spiritual and tangible dimensions of life. Māori’s intuitive nature harnesses holistic views where ‘using nature’ and ‘nurturing nature’ is central to therapeutic landscapes. For Māori, the ideals inherent in therapeutic landscapes are not separate entities. Exploration of solutions can be found in cultural and therapeutic landscapes, which should be seen as a part of modern ways of living (Gesler, 1992). By incorporating beliefs of stewardship and kinship with the land, both people and place can better identify in unison, offering new insights into living with nature in urban and rural cities.

Mātauranga Māori offers a broad and deep collaboration of traditional methods, practices, and values. Incorporating *Mātauranga* by learning of traditional ways of thinking about self and place endeavors to reconnect people from urban centers to the landscape. This may be achievable using three models: *Te Whare Tapa Wha*, *Te Wheke*, and *Te Pae Mahutonga*. These concepts traditionally express the inner emotions of indigenous culture and proffer a way which can inform the makeup of therapeutic landscapes that reflect the cultural and layered identity of past, present, and future adaptations.

Te Whare Tapa Wha represented by the *marae* (meeting house), acknowledges that designing for health and well-being can be more holistically seen through the four pillars of Māori health: *taha tinana*, physical health and the capacity for physical growth and development; *taha hinengaro*, mental health and the capacity to communicate, feel and think that body and mind are inseparable; *taha wairua*, spiritual health and the capacity for faith and wider communication; and *taha whanau*, family health and the communal response (belonging self and place). At the heart of these pillars is the notion that culture is central to the practice of Māori health and well-being (Hopkirk & Wilson, 2014). The pillars can maintain symmetry and balance by treating the ‘whole’ of the person and achieve well-being.

Te Wheke is symbolized by the octopus and encompasses the notion of belonging through *mana ake* (unique identity of self and family); *mauri* (life-force); *haa a koro ma kui ma* (breath and knowledge from ancestors); *whatumanawa* (healthy expression of emotion) (Durie, 1998). The head is formed as the *whanau* (family) and *waiora* (the total well-being of individuals and family).

Te Pae Mahutonga is represented by the constellation known as the Southern Cross. This model expresses the cosmic energy in relation to the inner well-being (the spiritual and physical). Each star of the constellation represents a different aspect of health promotion. The first is *mauriora* (cultural identity of place); the second *waiora* (physical environment); the third *toiora* (healthy living with the environment and people); and the fourth is *te oranga* (participation in society). Together these express the health and well-being where *nga manukura* (community leadership) and *mana whakahaere* (autonomy) encompass the notions of self, worth, identity and place (Durie, 1999).

Similarly, the therapeutic qualities of the landscape are centralized around the cycle of life. If people and all things are related, then the requirements to consider care and emotions mark the notion of *mauri*, the essence of matter. These holistic perspectives allow ways in which to review traditional practices as a means to create and re-establish therapeutic landscapes. *Mātauranga* Māori encapsulates the perspectives of oratory healing through traditions of *whanau* and *hapu* and have meaningful roles in supporting, protecting, informing and healing within Māori society (Te Pou o Te Whakaaro Nui, 2010). These customs can thereby be regarded as essential in servicing Māori and Non-Māori health and well-being, having an adaptive integrity that is as valid to current generations as it was in the past.

FUTURE RESEARCH DIRECTIONS

There are occasions when one cannot depend upon the knowledge they already possess. For this reason, a large part of the education of researchers involves getting familiar with the literature of their fields (Groat & Wang, 2002). However, concerning indigenous knowledge, often it resides in the domain of the *whanau* and cultural organizations and shared through practice, oral tradition as well as the memory of the place. For this reason, a far more cross-disciplinary exploration may be necessary to understand traditional therapeutic ideologies around environment and ecosystems as well as traditional practices of therapy and models of health. Research involving Māori or other indigenous cultures can benefit from alternative design strategies that are not entirely based on abstract sets of universal design principles but extend and expand from these principles in a way derived from the specific cultural context. The active participation of individuals as well as community members as co-creators can help to validate culture, keeping it alive and evolving – the process itself can provide the opportunity for individuals to collectively produce identity and belonging (McIntosh & Marques, 2017).

Western cultures could learn much from the deep ideological connection between landscape and health, by adopting the principles and knowledge of indigenous peoples (Te Pou o Te Whakaaro Nui, 2010). Possessing strong cultural identity goes beyond knowing one's ancestral heritage; it takes into account the ecological, economic and social contexts; which provide a holistic understanding that underpins the positive health of people (Williams, 1998). The ensuing bond that is formed from the landscape/health cycle of healing explains why certain places or situations are perceived to be therapeutic for Māori and explains why they can elicit return visits.

CONCLUSION

The creation of a therapeutic landscape in a bicultural or multicultural country will inevitably result in a highly contested role for landscape. A dominant culture can suppress alternative ways of knowing and healing; a dominant form of inhabitation can similarly suppress other ways of living. Therapeutic practices may continue but often without the underlying values that facilitate sustainable practice. Arguably sustainability recognizes the importance of interconnectedness. This chapter maintains that cultural and therapeutic landscapes can be seen as a part of modern ways of living rather than relics of bygone times and ancient cultural traditions. Incorporating beliefs of stewardship and kinship with the land can facilitate a restorative and therapeutic landscape and can offer new opportunities for living with nature in urban and rural contexts.

Introducing holistic values of therapy from Māori to a wider community as well as revising current practices and developing stronger (re)connections to the landscape are achievable goals and can offer a framework for the future. By understanding different ways of knowing such as that of *Māturanga* Māori, the landscape architect can better comprehend the relationship between people and landscape and how the landscape can function holistically. Landscapes should reflect cultural and ancestral traces, embedding and embodying these holistic concepts. The therapeutic landscape can enable people to feel a sense of security and safety with the place. These feelings of belonging allow for the making of *whakapapa* with the landscape while healing self and place.

Similarly, through the exploration of Māori culture and practice, the meaning of landscape can be expanded beyond traditional therapeutic landscape ideas. For Māori, the whole natural environment is seen as therapeutic and is another layer developed upon cultural and ancestral landscapes. Within the last few decades, renewed interest in the role of designed natural environments and health have inspired new ways for people to live and communicate with greater quality of life, well-being, and healing (Larson & Kreitzer, 2011). These new concepts incorporate culture in a symbiotic model where caring landscapes are placed within the framework of landscape authenticity and caring people heal the landscape that nurtures them. Such experiences entice strong partnerships with the common goal of learning to embrace *Mātauranga* Māori (Māori knowledge) as a way of bringing the community and the landscape together and simultaneously generating a hub in which to share and understand the beauty of the indigenous culture and its connection to nature. The idea of connectedness is an important underlying value that relates people to the environment, therefore enhancing the sense of guardianship of the land and encouraging different ways of thinking to flourish in mutual respect.

This chapter examined the collision of two different cultures and their respective values. It posits a bicultural approach that can lead to new ways of thinking about the landscape that expand beyond one-dimensional commercial models to a rich multi-faceted exploration of man and nature as a union. It has contributed to the body of knowledge surrounding the methods for embedding cultural knowledge to aid in therapeutic landscape design. It also contributes to a socially constructed understanding of wellness and illness by exploring the junction between two different cultural models for health and well-being. By combining indigenous knowledge with western science and technology, we can make knowledge systems work for both indigenous and western people. The proposed methodology is about re-discovering indigenous knowledge and its continued relevance to the way we live our lives. Indigenous knowledge extends well beyond the environment, and it expresses values and principles about human behavior,

ethics, and relationships as it examines the connections between landscape, treatment, health, and well-being. With Māori participation in all major issues in social health and well-being, change is inevitable and reviewing the past could positively contribute to present and future shifts.

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KEY TERMS AND DEFINITIONS

Hapū: Sub-tribe. Kinship group, clan, tribe, subtribe – section of a large kinship group and the primary political unit in traditional Māori society.

Honohono: Spiritual energy healing. It uses vibrational energy techniques for improving and maintaining health by balancing the bodies' energy system.

Iwi: Tribe. Extended kinship group, tribe, nation, people, nationality, race that often refers to a large group of people descended from a common ancestor and associated with a distinct territory.

Kaitiakitanga: Guardianship, stewardship, trusteeship, trustee.

Kaupapa Māori: Māori approach, Māori topic, Māori customary practice, Māori institution, Māori agenda, Māori principles, Māori ideology – a philosophical doctrine, incorporating the knowledge, skills, attitudes, and values of Māori society.

Ki Uta Ki Tai: It is a traditional concept that represents *kaitiakitanga* (guardianship) from the mountains and great inland lakes, down the rivers to *hāpua*/lagoons, *wahapū*/estuaries and to the sea. *Ki uta ki tai* encapsulates the need to recognize and manage the interconnectedness of the whole environment.

Kōrero: Speech, narrative, story, news, account, discussion, conversation, discourse, statement, information.

Kōtahitanga: Unity, togetherness, solidarity, collective action.

Mana: Prestige, authority, control, power, influence, status, spiritual power, charisma – mana is a supernatural force in a person, place, or object.

Mana Whenua: Territorial rights, power of the land, authority over land or territory, jurisdiction over land or territory – power associated with possession and occupation of tribal land.

Manaakitanga: Hospitality, kindness, generosity, support – the process of showing respect, generosity, and care for others.

Mātauranga: Knowledge, wisdom, understanding, skill.

Mauri: Life principle, life force, vital essence, special nature, a material symbol of a life principle, source of emotions – the essential quality and vitality of a being or entity.

Noa: To be free from the extensions of tapu, ordinary, unrestricted, void.

Pākehā: New Zealander of European descent – probably originally applied to English-speaking Europeans living in Aotearoa/New Zealand.

Papa Kāinga: Original home, home base, village, communal Māori land.

Rangatiratanga: Chieftainship, right to exercise authority, chiefly autonomy, chiefly authority, ownership, leadership of a social group, domain of the rangatira, noble birth, attributes of a chief.

Rongoā: Rongoā is traditional Māori medicine – a system of healing that was passed on orally. It comprised diverse practices and an emphasis on the spiritual dimension of health. Rongoā includes herbal remedies, physical therapies such as massage and manipulation, and spiritual healing.

Tangata Whenua: 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).

Tapu: Restriction, prohibition – a supernatural condition. A person, place or thing is dedicated to an *atua* (god) and is thus removed from the sphere of the profane and put into the sphere of the sacred. It is untouchable, no longer to be put to common use.

Tikanga: 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.

Tohunga: Skilled person, chosen expert, priest, healer – a person chosen by the agent of an *atua* (gods) and the tribe as a leader in a particular field because of signs indicating talent for a particular vocation.

Tūpuna: Ancestors, grandparents.

Whakapapa: Genealogy, genealogical table, lineage, descent. Reciting whakapapa was, and is, an important skill and reflected the importance of genealogies in Māori society regarding leadership, land and fishing rights, kinship, and status.

Whanaungatanga: Relationship, kinship, sense of family connection – a relationship through shared experiences and working together which provides people with a sense of belonging. It develops as a result of kinship rights and obligations, which also serve to strengthen each member of the kin group.

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