
Agribusiness & Economics Research Unit
LINCOLN UNIVERSITY

LINCOLN UNIVERSITY
TE WHARE WĀNAKA O AORAKI

# Cultural Attributes of Ngāi Tahu Food and the International Consumer Cultures that Will Recognise Them

Matthew Rout
John Reid

Research Report No. 358
August 2020

***Research to improve decisions and outcomes in business, resource and environmental issues.***

The Agribusiness and Economics Research Unit (AERU) operates at Lincoln University, providing research expertise for a wide range of international, national, and local organisations. AERU research focuses on business, resource, and environmental issues.

The Agribusiness and Economics Research Unit (AERU) has four main areas of focus. These areas are wellbeing economics, trade and the environment, economic development, and non-market valuations.

Research clients include Government agencies, both within New Zealand and from other countries, other international agencies, New Zealand enterprises in the private sector, and community groups.

AERU MISSION
To exercise leadership in research for sustainable well-being.

**AERU VISION**
The AERU is a cheerful and vibrant workplace where senior and emerging researchers are working together to produce and deliver new knowledge that promotes sustainable well-being.

**AERU STRATEGIC AIMS**

- To be recognised by our peers and end-users as research leaders for sustainable well-being.
- To mentor emerging researchers and provide advanced education to postgraduate students.
- To maintain strong networks to guide AERU research efforts and to help disseminate its research findings.
- To contribute to the University's financial targets as agreed in the AERU business model.

**DISCLAIMER**
While every effort has been made to ensure that the information herein is accurate, the AERU does not accept any liability for error of fact or opinion that may be present, nor for the consequences of any decision based on this information.

Summaries of AERU Research Reports beginning with #235, are available at www.lincoln.ac.nz/aeru. Printed copies of AERU Research Reports can be requested from the AERU Administrator.



**Suggested citation for this report**:

Rout, Matthew and John Reid (2020). *Cultural Attributes of Ngāi Tahu Food and the International Consumer Cultures that Will Recognise Them.* AERU Research Report No. 358, prepared for the Unlocking Export Prosperity Research Programme. Lincoln University: Agribusiness and Economics Research Unit.

# Cultural Attributes of Ngāi Tahu Food and the International Consumer Cultures that Will Recognise Them

Matthew Rout
John Reid

Research Report No. 358

August 2020

Agribusiness and Economics Research Unit
PO Box 85084
Lincoln University
Lincoln 7647
Canterbury
New Zealand

Ph: (64) (3) 423 0372
http://www.lincoln.ac.nz/AERU/

ISSN 1170-7682 (Print)
ISSN 2230-3197 (Online)
ISBN 978-1-877519-80-2 (Print)
ISBN 978-1-877519-81-9 (Online)

## Abstract

There is a general consensus that significantly more export dollars can be earned by Aotearoa agri-food products if their underlying qualities are better communicated to consumers. Among Aotearoa's high-quality producers and processors, Māori agribusinesses are emerging as national leaders. Among these leaders is Ngāi Tahu Farming, a subsidiary of Ngāi Tahu Holdings Corporation owned by Te Rūnanga o Ngāi Tahu. This report demonstrates that food produced by Māori agribusiness has attributes substantively different from Western approaches, but which resonate with a number of cultural traditions and food movements around the world. The report aims to identify consumer markets that value cultural attributes that Ngāi Tahu has to offer in their food products, which may represent premium markets for Ngāi Tahu food. Although the focus is on Ngāi Tahu, the findings have wider relevance for Māori agribusinesses in Aotearoa.



## Keywords

Ngāi Tahu; Māori Agribusiness; Value Chains; Credence Attributes; Māori Cultural Attributes.

## ANZSRC Fields of Research

International Business (150308); Organization and Management Theory (150310); Studies of Māori Society (169904).

## Acknowledgements

This Research Report has been prepared as part of the research programme Unlocking Export Prosperity, funded by the Ministry of Business, Innovation and Employment (LINX1701). The authors wish to extend their thanks and gratefulness to all the Ngāi Tahu participants that shared their wisdom, stories, and insights in this study. Ngā mihi nui ki a koutou katoa.

# Contents

# List of Figures



# List of Tables

# Introduction

There is a general consensus that significantly more export dollars can be earned by Aotearoa agri-food products if their underlying qualities are better communicated to consumers. In comparison to many other countries, Aotearoa's food-producing and processing conditions are of a high standard. Typically, the resulting premium quality products are not explicitly differentiated in markets from those produced and processed in inferior conditions.

Among Aotearoa's high-quality producers and processors, Māori agribusinesses are emerging as the national leaders. Many are implementing production protocols that embrace indigenous values emphasising environmental, social, and economic sustainability. Among these leaders is Ngāi Tahu Farming (NTF), a subsidiary of Ngāi Tahu Holdings Corporation, which is owned by Te Rūnanga o Ngāi Tahu (TRoNT) – the elected tribal representative body of the Ngāi Tahu people who are indigenous to Te Waipounamu, the South Island of New Zealand. NTF operates according to a kaupapa (philosophy) of three guiding principles: economic sustainability (He Tau Pōike), environmental sustainability and social sustainability (He Tangata Marae). Despite operating according to these protocols, the food that NTF produces, including milk, beef, lamb and venison, currently enters orthodox supply chains to international markets and remains undifferentiated from other foods. Within NTF there is recognition that their products do contain unrealised value, and there is strong interest in exploring alternative food production, processing and supply-chain arrangements to capture premiums. However, this would require the establishment of processing facilities and supply arrangements that would entail substantial financial risk to the iwi.

NTF is not alone in this scenario. Other Māori agribusinesses and other primary producers across aquaculture, horticulture and apiculture are also seeking to capture the value of production approaches inspired by indigenous values. Like NTF, however, they are confronted with substantial costs and potential risks. The purpose of this report is to assist NTF and other Māori agribusinesses, as well as the broader Māori primary production sector, in Aotearoa to transition toward alternate food production, processing and supply-chain arrangements that capture premiums. It is obvious that the food generated by these Māori producers has a unique value proposition: the indigenous principles underpinning its production, which sets it apart from other food. However, there is little clarity concerning what this value proposition entails.

To date, Māori agribusiness have highlighted values that underpin their production processes such as kaitiakitanga, manaakitanga, whai rawa, and tino rangatiratanga. These values are often translated respectively to mean something like environmental stewardship, social wellbeing, wealth, and independence. Something is lost, however, when this translation occurs. Typically, the values become framed from a Western position, especially the triple bottom-line concepts of environmental, social, and economic sustainability, albeit with the indigenous ambition for independence and self-determination added as an extra dimension. From this Western position, the indigenous approach does not look much different from other agricultural sustainability movements such as organic agriculture and regenerative farming. In this manner, the value proposition of food produced by Māori looks little different from the value proposition and premiums attracted by other sustainable production approaches.

This report demonstrates that the food produced by Māori agribusiness is in fact substantively different from Western thinking and approaches. The first part of this report explores the unique value proposition of the food generated according to Māori beliefs, values and behaviours. It does this by identifying the cultural attributes (explained below) related to food from the Ngāi Tahu perspective. A significant number

of Ngāi Tahu food foragers, producers, processors, and distributers were interviewed to identify these unique cultural attributes.

Based on a literature review and analysis, the second part of the report then explores national, religious or ethnic cultures around that world that share and recognise similar cultural attributes in relation to food as Ngāi Tahu. The purpose of this enquiry is to identify consumer markets that value the cultural attributes that Ngāi Tahu has to offer in their food products and may therefore represent potential markets willing to purchase and pay more for food produced by Ngāi Tahu.

Using Google analytics and a literature review, the second part drills down into food subcultures, or what might be better understood as 'food movements', that may being willing to purchase or pay more for foods with Ngāi Tahu cultural attributes. These movements range from vegetarianism through to recent innovations such as the Paleo diet. This part of the report discusses how Ngāi Tahu and Māori might frame or pitch their products to these subcultures to communicate the unique qualities of their food.

The analysis in this report provides conceptual clarity to NTF and Māori agribusinesses regarding the qualities, in terms of credence attributes, of the food they produce, and the markets willing to pay premiums for that food. The overall finding is that there are a number of core values and concepts that have guided Ngāi Tahu food production, production, processing, and exchange. We demonstrate that two fundamental cultural credence attributes underpin Ngāi Tahu food - mauri and mana. From a Ngāi Tahu, and Māori position, food is either mauri (health and vitality) and mana (ethical standing) enhancing or reducing based upon whether the food emerges from environments and social processes that are underpinned by kaitiaki-inspired actions and relevant observances. In addition, we outline a number of closely interrelated cultural credence attributes that include:

- Noa – The food has transitioned from tapu (a protected sacred state) to noa (a usable sacred state).
- Utu – The food is formed through mutualism, balance, and respect between humans and the ecological systems.
- Tino Rangatiratanga – The food is produced by indigenous people seeking self-determination over their lands and waters to ensure that their non-human relatives (lands and waters) are cared for.
- Tūrangawaewae – The food is produced by those that are deeply related and interconnected with non-human whanaunga from which the food emerges.
- Kaitiakitanga – Food that is produced by those guarding the environmental for future generations of non-human communities.
- Manaakitanga – Food that is provided to grow, support, and nurture the mana and welfare of those consuming it.
- Whanaungatanga – Food from communities that uplift and enhance kinship ties between people and the environment so that both may flourish.
- Kaihaukai – Food that comes from methods of exchange that acknowledge the tapu/sanctity of whānau-to-whānau and community-to-community connections and relationships.
- Self-sufficiency – Food that has been sourced by traditional hunter-gatherers who have a strong connection with the ecosystems in which they operate.

- Seasonality – The food is produced by those with a history of travel, enterprise, and movement with the seasons.
- Kīnaki – The food is produced for special occasions and is rare.
- Modern Vitalism – Food that has an attribute of being both contemporary yet produced according to an indigenous wisdom tradition.
- Cultural Regeneration – Food that is rare and has an attribute of maintaining cultural practices at risk of extinction.
- Indigenous Investment – Food whose purchase supports the wellbeing and welfare of indigenous people and their lands and water.

Furthermore, the report determines that a number of markets would understand and be willing to pay premiums for this food, or more specifically for food produced by Ngāi Tahu/Māori that has one or more of the cultural attributes examined. While the report aims for a relatively comprehensive coverage with regard to market analysis, there is a particular focus on Europe, North America, Australia, China, Japan, and India. The reason for this is that they are either large trading partners of New Zealand, or – in the case of India – one of the largest potential markets in the world. Much of the work here should be understood as preliminary as a number of the international beliefs, values and behaviours examined are highly complex and any mistakes made or nuances 'lost in translation' could have potentially problematic outcomes. As will be shown, because food lies at the heart of culture, the consequences of a misstep can be significant.

# PART ONE:

# UNDERSTANDERING THE CULTURAL ATTRIBUTES OF FOOD PRODUCED BY NGĀI TAHU

# Chapter 1
# Cultural Attributes of Food

Part One of this report explores the unique value proposition of food generated according to Ngāi Tahu and Māori beliefs, values, and behaviours. It does this by identifying the cultural attributes related to food from the Ngāi Tahu perspective. A significant number of Ngāi Tahu food foragers, producers, processors, and distributers were interviewed, and a substantial literature review undertaken, to identify these unique cultural attributes. To begin, this part of the report explores the concept of 'cultural attributes' of food. It does this by splitting the phrase into its constituent parts, 'cultural attributes' and 'food', each of which is a complex component on its own and is intimately and intrinsically related with the other. Each is discussed sequentially below, before a detailed examination of this concept in relation to Ngāi Tahu beliefs, values, and behaviours reveals the cultural attributes of food from a Ngāi Tahu Māori perspective across pre-contact, colonial, and post treaty settlement history.

## 1.1 Culture

As with any complex concept, there are competing definitions of the term 'culture'. Geertz (1973, p. 89) described it as "a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge about and attitudes toward life". Used more generally – though retaining much of Geertz's intent – it refers to the 'beliefs', 'values' and 'behaviours' of a specific group of people, or society (Barker 2004). In a way, culture can be understood as the collective set of rules, understandings, and practices that help a group of people live as a society, though even within a society culture can vary. Therefore, the cultural attributes of food can be understood, at least at a simple level, as a society's particular beliefs, values and behaviours (BVBs) regarding the production, preparation and consumption of food.

One way of looking at this is that a culture's beliefs, values and behaviours about food are a subset of their wider culture (Kittler *et al*. 2011). Things such as their religious beliefs and the value of the individual versus the collective, amongst many others, will impact the way they produce, prepare, and consume food. The influence of religious beliefs is a good example. In a society whose religion deifies an animal or plant, the animal or plant will not be consumed even if it could serve as a useful form of sustenance. Another example is the influence of collectivism. In a society that values the collective over the individual, all crops might be grown together and distributed equally at the end of the season. In a society that values individual effort, meanwhile, each person may have their own crop they get to keep.

The cultural attributes of food can be understood as the wider social beliefs, values and behaviours applied to production, preparation and consumption of food. These examples demonstrate how food encapsulates a society's culture, providing a powerful lens through which the culture can be viewed (Montanari 2006). Rather than seeing the relationship between food and culture as unidirectional, this framing has a more reciprocal understanding: food is culture and culture is food (Montanari 2006). In this understanding, food should not be viewed as a subset but as a powerful manifestation of culture, one that shapes culture. For example, taking part in a Japanese tea ceremony involves far more than simply drinking tea but offers a powerful insight into a wide range of Japanese beliefs, values and behaviours. It is a window into their culture. Likewise, the prohibition on eating beef in some schools of Hinduism cannot be properly understood without a much deeper insight into Hinduism as a religious and cultural tradition.

Both views are correct in their own way and both help in the analysis to come. Food is a subset of a society's culture, and food encapsulates and embodies culture. This suggests that the word 'food' has a far more complex meaning than the simple dictionary definition of "any substance that provides the nutrients necessary to maintain life and growth when ingested" (Kittler *et al*. 2011, p. 1).

## 1.2 Food

Food is not the same as sustenance. As Kittler *et al*. (2011, p. 1) explain, when animals feed, "they repeatedly consume those foods necessary for their well-being, and they do so in a similar manner at each feeding. Humans, however, do not feed. They eat". In other words, rather than merely eating the essential nutrients needed to sustain life and well-being, humans make a wide range of choices and decisions far beyond those needed for 'fuelling the machine'. Eating, as Kittler *et al*. (2011, p. 2) note, "is distinguished from feeding by the ways humans use food." Expanding on this, Montanari (2006, p. xi) explains that:

> We only too readily associate the idea of food with the idea of nature. That linkage is, however, ambiguous and fundamentally inaccurate. The dominant values of the food system in human experience are, to be precise, not defined regarding 'naturalness,' but result from and represent cultural processes dependent upon the taming, transformation, and reinterpretation of Nature.

Put simply, when we use the term 'food' we are already inescapably referring to culture. The two are intrinsically entwined. However, because food is such a fundamental component of culture, this connection is often overlooked. It is when you experience another culture and their food habits that you realise how culturally embedded your understanding of food is and how much this can vary around the world.

Food provides an almost unique insight into culture. As Douglas and Gross (1981, p. 1) have argued, the "study of food ought to enjoy a privileged status in cultural analysis" because it "combines the concrete and the ephemeral, it meets physiological and social needs, it provides the free gift of hospitality and the strict requirement of biological survival". It is precisely food's centrality to life, both as the fuel for the machine and the binding glue of families and societies, that makes it such an integral aspect of culture.

## 1.3 Cultural attributes versus credence attributes

A common way of conceptualising the intangible attributes of food is 'credence attributes'. Some discussion of how this fits in with cultural attributes will help delineate the centrality of cultural attributes for Māori, as well as outlining the ways in which these attributes need to be marketed.

Consumers are influenced by a wide range of factors when they purchase food. These can be divided into, broadly speaking, physical and credence attributes. As Dalziel *et al*. (2018) explain, 'food' has physical attributes – such as taste, freshness, appearance etc. – but there are also more intangible factors that influence the consumer although they cannot be directly seen or experienced at the point of purchase. These are called credence attributes. Examples cited by Dalziel *et al*. (2018, p. 2) are "food safety, environmental stewardship, animal welfare, social responsibility, cultural authenticity, fair trade, functional foods, organic production, GM-free, water footprint, biodiversity and local foods".

Cultural attributes are often considered as a subset of credence attributes. However, the position taken here is that, due to the above outline of the cultural attributes of food and the fundamental role that 'culture' plays in Māori food, they can be seen as equivalent categories. For Māori, at least, credence attributes are cultural attributes. Take the examples cited by Dalziel *et al*. (2018) above; for Māori, all can be considered 'cultural', as will be shown in this report.

Further, to place 'cultural attributes' as a subset of credence attributes is problematic for Māori not just because of the centrality of food to Māori culture but also because it has resonances with colonialism, where Māori 'culture' was determined and delineated by the coloniser – kept apart from science, economics and other 'Western' traits (Reid and Rout 2016b). Every credence attribute, plus every physical attribute, can be considered to fit within Māori cultural attributes of food.

As noted, one of the most important aspects of credence attributes is that they cannot be easily determined by consumers. The "relevant attribute information is difficult to ascertain directly by consumers at any stage of purchase, even after consumption of the food" (Moser *et al*. 2011, p. 122). Because it is difficult for the consumer to either directly perceive these attributes or take claims made by producers at face value when they are shopping, "credence goods require a judgment or a certification by an authority figure such as a governmental agency, or organisations that consumers trust to lend information on credence attributes" (Moser *et al*. 2011, p. 122). An example is the differences between grass-fed and grain-fed beef. While there are visual differences – grass-fed beef has yellower fat and darker meat – most consumers would not be able to determine the original of a steak by visual inspection. While some consumers would accept the producer's claims at face value, most would be more sceptical when being asked to pay more for something and require a third party to verify the truth of any claims made. There is, then, both a need for a comprehensive understanding of what credence attributes consumers want, and a means of assuring them that the product and producer really do have the claimed attributes.

This is particularly important as credence attributes "play an increasingly important role in consumer preference formation" (Moser *et al*. 2011, p. 123). As well as being partly driven by conspicuous consumption, the growing importance of credence attributes can be largely viewed within the wider context of consumer alienation from, and distrust in, the global food system, and the consequent rise in third party verification systems to assure consumers of a food's provenance (Reid and Rout 2018). One of the consequences of the dominant neoliberal food sector is the physical abstraction of the consumer from their food. This is a process that began during Friedmann and McMichael's (1989) First Regime that started in the 1870s. There has been not only a significant decline in physical proximity between the producer and consumer, but also psychological distancing.

The global food industry now markets 'food from nowhere' to the masses by disrupting "the interaction between human beings and nature", a development of the Second Regime (Friedmann and McMichael 1989; Campbell, 2009, p. 312), which began in the 1950s. It was during the Second Regime that food was inscribed with the "technologically optimistic tropes of high modernity" whilst its actual connection to reality was obscured (Campbell 2015, p. 200). In short, consumers have been increasingly distanced from their food both physically and psychologically. Yet they want a genuine connection to their food, one that not only reassures them of its safety, environmental sustainability etc. but also one that has an intangible legitimacy and meaning. This is where the Māori cultural attributes of food are so potent: they encapsulate both the ethical and environmental aspects with these more nebulous but equally important qualities, as will be outlined in the following chapter.

# Chapter 2
# The Core Cultural Concepts of Ngāi Tahu Kai

Kai, or food, is "core to Māori society" (Kira 2017, p. 71). It delivers life, it is life. "While we write Māori food and cultural understanding, Māori would not differentiate the two: one is the other" (Neill *et al*. 2015, p. 87 – emphasis in original). Kai is connection to place and to people for Ngāi Tahu, it is imbued with a spirituality and sacredness, it is ordered and understood by a set of intricate rules and guidelines about how to harvest, hunt or produce it, how to prepare it, how to consume it and, critically, how to share it with others. For Ngāi Tahu, food – the animals and plants that are grown, hunted, and harvested as well as the ecosystems in which they are gathered – is intricately connected with Ngāi Tahu culture, wellbeing, politics and general life.

Figure 2.1 below demonstrates the interconnected nature between food and culture for Ngāi Tahu. The Word Cloud is a representation of the most common words emerging from Ngāi Tahu's strategic documentation. It shows the strong connections between mahinga (places where food is gathered) with land, management, water, health, whānau (family) and cultural beliefs, values and behaviours.

**Figure 2.1: Interconnections between Food and Culture**


Given the complex and interconnected nature of food and culture, examining the Ngāi Tahu cultural attributes of food requires an overview of some of the core components of the underpinning beliefs, values and behaviours (BVBs) of Ngāi Tahu culture. This analysis will focus on the pre-contact era, initially, followed by an examination of the changes and continuations into the contemporary era.

## 2.1 Beliefs: the Ngāi Tahu worldview

At its most basic, a worldview is "the way people characteristically look out on the universe" (Spradley and McCurdy paraphrased in Ishii *et al*. 2015, p. 57). It is "the fundamental cognitive orientation of a society, subgroup, or even an individual" (Palmer 1996, p. 114). Durie *et al*. (2017, p. 6), in reference to Marsden, define a worldview as "the central systemisation of conceptions of reality to which the members of that culture assent and from which stems their value system". Mikaere (2011, pp. 357-358), speaking specifically of the Māori worldview, explains how it "provides the lens through which we view our world. It determines the way in which we relate to one another and to all other facets of creation. It enables us to explain how we came to be here and where we are going. It forms the very core of our identity".

While there are many ways of defining the Māori worldview, with terms like 'kin', 'whakapapa-centric', 'holistic', and 'relational' used (Cheung 2008), one of best for the purposes of this project is 'animism' – specifically, the contemporary rather than traditional understanding of the concept as this term has been reclaimed from the early anthropologists (Reid and Rout 2016a). Animists see nonhuman entities – from mouse to mountain, from river to rhinoceros – as active subjects in their world instead of passive objects. Consequently, they see humans as a part of reality, not apart from it, embedded in a network of ever-changing relationships with these other nonhuman entities. As Reid and Rout (2016a, p. 429 – emphasis in original) explain:

> [T]he animist does not believe that all nonhuman entities are the same as humans but is founded on a more sophisticated, if inherently obvious, premise: that the relationships humans have with the nonhuman entities are reciprocal and contextual rather than unidirectional and abstract, and that as these relationships progress each entity shapes the other in meaningful ways. Animists do not believe that every animal or natural phenomena has personhood—the opposite is true, only those with which they have a relationship with have personhood.

Animism is a lived worldview, one that is phenomenological and experiential, embedded in places and relationships. Willerslev (2007, pp. 8-9) explains that animism is not ''a formally abstracted and articulated philosophy''. Rather, it is a ''pragmatic and down-to-earth'' practice restricted to ''specific contexts of activity and experiences''. Willerslev (2007) goes on to explain that often these relationships develop during the sourcing of food. For animists, generally the most important connections they have are with the food they eat, and the ecosystem in which they source their food, because these are so central to their life. Animism is most often found amongst hunter-gatherer groups precisely because of the '''complex, intimate, reciprocal, personal and crucially ambivalent' nature of relationships'' between them and their food (Harvey 2005, p. 116).

The Māori experience of the world can be described as animist, it is an experience of environment as a "community of interconnected living personas, only some of whom are human" (Reid and Rout 2016a, p. 429). This is described captured by Spiller et al. (2010, p. 155), who write that ''[i]ndigenous perspectives offer important insights into a multi-dimensional 'woven universe'…which has not broken tradition with the 'living web of the world' and kinship with all of creation.''

The Ngāi Tahu worldview is of an interconnected, dynamic, unfolding, and vital animated cosmos (Henare 2001). While much will be covered, the following is just a snapshot of some of the more salient beliefs. One caveat, the following outline of the Ngāi Tahu worldview uses both Ngāi Tahu-specific and general Māori work as, while there are some differences, the core concepts are similar.

*Mana*

This term is commonly translated as 'power' or 'prestige' but can more properly be expanded as referring to respect, acquired knowledge, control, intrinsic value, influence and, taken here as key, dignity (Pere 1997). Dignity here meaning the importance and value a person has, which makes them respect themselves and makes others respect them, though taken in a more complex way that incorporates the spiritual and natural worlds. Mana is tripartite in its source: "mana atua—God given power; mana tupuna—power handed down from one's ancestors; and mana tangata—authority derived from personal attribute" (Gallagher 2003). Mana is closely related to tapu, in its "primary meaning, tapu expresses the understanding that once a thing is, it has within itself a real potency, mana" (Henare 2001, p. 207). As Beaton (quoting Shirres, 2007, pp. 23-24) explains, "All things possess tapu on their creation, and the source of the tapu comes from the mana (power/authority) of the atua… All things too have mana on their creation, however unlike tapu it is a power that is realised over time therefore, 'the child who is of chiefly line has not yet the mana, the power, of a chief, but has already the tapu of a chief'". Head (2005, p. 74) states that "mana was the outward sign of tapu". Mana and tapu are both extinguished at death (Beaton 2007).

Mana informed the way kai was considered in several important ways. First, mana can be understood as the relationship with food and the spaces in which it is gathered – from which emerges dignity. In particular, mana whenua, or control over a certain territory and the resources within it, enables Māori to determine *what* food they produce, prepare and consume and *how* they produce, prepare and consume it. This 'resource sovereignty' is particularly central to Ngāi Tahu and the mana from this authority is fundamental to who Ngāi Tahu are and the dignity that is accrued from this form of being. Mana is what makes Māori food Māori, it is an essential cultural attribute. Mana as relationship is key. As Wehi and Roa (2018, p. 8) note:

> [Māori] have a relationship with food which asserts a responsibility to each other. Mana is at the heart of this reciprocal relationship. That mana isn't about sovereignty or power. Mana is a recognition of the reciprocity in relationships, between peoples, and between peoples and places. Each has a responsibility to one another. Mana today is often misconstrued as a manifestation of power, as sovereignty. Instead, we argue that there is an onus and expectation within the relationship that the relationship itself is acknowledged, nurtured; maintained. That we look after the land, and the land looks after us. In this way, mana connects to 'te āta noho', encouraging and enhancing wellbeing.

Second, mana functioned as a form of 'currency' in traditional Māori society (Reid and Rout 2016b). As such, it can be understood as the dominant facilitator of the exchange of different foodstuffs between various groups, just as utu (explained below) is the framework within which this exchange occurs. This will be further explained in the outline of the key value of manaakitanga (outlined below), which is an ethic based on building mana. If mana was the currency, then as Petrie (2013, p. 13) notes, food "represented economic control, reputation, and social power, food was the fundamental measure of wealth in Māori society… Being so essential to chiefly mana, the ability to provide ample food supplies was intimately connected with tohatoha (its liberal distribution within the group)."

*Mauri*

The other core belief, in terms of this project, is mauri. All beings "within the cosmic family, or whakapapa, are understood to be animated by what is termed mauri, which can be translated to mean 'life essence'" (Reid and Rout 2016a, p. 430). Mauri can also be more pragmatically understood as an entity's "life supporting capacity" (Te Rūnanga o Kaikōura, 2007, p. 31). Mauri is not only the life essence but also the "physical object in which the essence is located" (Benton *et al*. 2012, p. 239). It is intrinsically connected to whakapapa, as "all things are considered to have a mauri (life force) and to be living, and to have a

genealogical relationship with each other" (Tau *et al*. 1991, pp. 3-4). Mauri "unifies all aspects of creation, and is not without differentiation, but unity appreciative of the intrinsic spiritual worth, and difference, of each… Māori continue to see themselves as agents in an evolving cosmological community, and use whakapapa [genealogies] to actively interpret relationships in order to bring the sacred to the centre of being'" (Spiller *et al*. 2011, pp. 158-159).

All existing things have mauri, including animals, plants, ecosystems and people. Mauri is a sign of life and an existence in the material world.[1] Mauri can be positively or negatively impacted by interactions between creatures, as Patterson (1998, p. 71) notes:

> [T]he mauri of all creatures are interconnected. If one creature suffers unnecessarily, that causes unnecessary harm to many others. After all, all creatures are regarded as kin, related through the whakapapa or genealogical tables that trace all beings back to Papa and Rangi, Earth and Sky. The life force or mauri of each creature descends through these genealogical chains, and so is related to that of all other creatures.

Although food itself does not have mauri, because it is no longer alive and has passed from existence, the way the food has been procured, produced, or processed, does matter and effects the mauri of the person consuming this. One way of understanding this is that if mana is the currency, then mauri acts as the ledger. It keeps track of the exchanges. For example, in terms of production, if food is produced in a way that degrades the mauri of the land and of the water, then the person consuming it will also experience a degrading of their mauri. The degradation occurs due to an underlying idea of natural order and balance (to be discussed), whereby impacting another's mauri impacts your own. In terms of processing, as Kereopa explains (quoted in Beaton 2007, p. 128):

> [T]he attitude of the cook when preparing the food also attributes to the overall atmosphere. So if you are angry when you are about to prepare food, walk away, and do it later. Because what happens if you prepare that food while you are angry is that you upset all the mauri of that kai, so that food will not have the mauri that will be able to benefit the people who eat it. It will be all contaminated with anger.

"Food", as Reid and Rout (2016a, p. 432) explain, "is the product of a nexus of relationships from a place, and as such will be imbued, from a Māori perspective, with unique mauri that comes from its specific whakapapa". Food indirectly impacts a person's mauri, either positively or negatively.

An important aspect of mauri and food, one that relates to tapu, is the importance of purity and pollution in food in general, and water in particular (Tau *et al*. 1991). Mauri is "the energy and vibrations for the growth of pure food", as Hutchings *et al*. (2012, p. 140) put it. Water purity was critical for Ngāi Tahu. As Tau *et al*. (1991, pp. 4-12) explain:

> [Water was] held in the highest esteem because the welfare of the life that it contains determines the welfare of the people reliant on those resources. Traditionally, water was the centre of all activity within Maori society…water-sourced foods were particularly important in Te Waipounamu [the South Island] because of the harsh climate which precluded the easy or extensive growing of horticultural crops.

[1] The traditional view of mauri (still adhered to by some Māori) included an esoteric and magical element. The mauri of a person, or even an ecosystem, could, through certain rituals performed be placed into object by tohunga (traditional priests). This was done to protect the mauri from rivals who might seek to damage the mauri of a person or other taonga (something valued) such as a river or lake (Best 1925, 2005).

The impact of water quality on the mauri conferred by food is also noted by Harmsworth (1997). Sexual intercourse was also prohibited because of its impacts on mauri and food gathering. As Williams (2016, p. 97) writes:

> The importance of doing things in a particular way was emphasised by a prohibition on sexual relations during the harvesting season for many resources, notably most forms of deep-sea fishing and the harvesting of kāuru [stem of cabbage tree]. The rationale was that a man's tapu was reduced during intercourse and his mauri weakened.

In the pre-contact era, most of the focus on food purity and pollution related to human waste, dead bodies and other potential sources of pollution. Morgan (2006, p. 44) notes that "water and water bodies such as rivers, lakes and wetlands have their own mauri. The presence of mauri is why it is important for the tangata whenua to protect these taonga from pollution, degradation and damage". Water purity was so important that there "were several degrees of water purity and that separate sources of water were used for different purposes". Amongst the many terms are: wai-ora, which refers to the purest water; wai-māori, which is ordinary water; wai-kino, which is polluted water; and wai-mate, which is dead water (HBRC 2015, p. 25).

*Whakapapa, tipuna and atua*

A central belief of the Ngāi Tahu worldview is the primacy of whakapapa, often defined as 'genealogy', and the related concepts of tipuna (ancestor) and atua (gods). Te Rito (2007, p. 10) details how whakapapa "exists as a genealogical narrative, a story told layer upon layer, ancestor upon ancestor up to the present day". Whakapapa is a "sequence of myths, traditions, and tribal histories" (Walker quoted in Te Rito 2007, p. 10). To be clear, whakapapa is not limited to human relationships. Ngāi Tahu believe that "everything is connected genealogically", that "all living things are related to each other as a family" (Reid and Rout 2016a, p. 430).

In a traditional sense all whakapapa can be traced back to the atua. While the word atua is often translated as 'gods', it may be better understood as the supernatural primary ancestors who have continuing influence over their particular domains (Benton *et al*. 2012). The atua are "the progenitors and personifications of all known phenomena, both living and non-living" (Roberts *et al*. 2004, p. 3). The traditional mythic view of Ngāi Tahu is that the earth is Papatūānuku, the Mother, who along with Ranginui, the Sky Father, are two primal atua. Many of the various ecosystems, from the oceans/marine life to forests/trees/birds to winds/lightning all have their own atua, who are the children of Papatūānuku and Ranginui.

Tau *et al*. (1991, pp. 3-4) explain that whakapapa "binds Ngai Tahu to the mountains, forests and waters, and the life supported by them". This brings us to tipuna or ancestor. Ngāi Tahu understand that they are the product of all the tipuna they whakapapa to, that they are the outcome of are all those persons, be they human, animal, plant or geographical, which have contributed in their life (Reid and Rout 2016a, p. 430). As Ngāi Tahu ki Murihiku (2008, 78) explain, "[w]hakapapa establishes links that maintain relationships between our people, language and their environment. All things whether animate or inanimate are connected and have Mauri, a life force". This 'kincentric ecology' of whakapapa and tipuna means that Ngāi Tahu view themselves as part of an extended ecological family that shares ancestry and origins. Both mana and mauri are emergent properties of the relationships delineated by whakapapa, it can be understood as the framework within which mana and mauri exist and change. It is particularly pertinent for food as the relationships between producer, ecosystem and food source are expressions and manifestations of mana and mauri.

All food, whether flora or fauna, has whakapapa that can be traced back to an atua. It is a tipuna as well as a resource; this hybridity is a central part of Māori relationships with the natural world. All the places from which the food derives, from forest to river to ocean, can be traced back to an atua and is also a tipuna and resource (Reid and Rout 2018). As Roberts *et al*. (2004, p. 4) explain, in "conceiving of important phenomena as godlike beings endowed with superhuman attributes emphasizes to humans the fact that their environment and its resources are both ancestors and kin". This creates a sense of care and respect for food and its habitats (kaitiakitanga – outlined below) as understanding the natural world as family generates emotional connections and a consequent ethic to care for family (Reid and Rout 2018).

Whakapapa also serves as a framework for harvesting, hunting and producing food as all food, and the habitats from which it derives, are the domain of an atua and this creates different sets of beliefs, values and behaviours (values and behaviours to be outlined below), it is particularly salient for mahinga kai (outlined below). As Russell (quoted in Philips *et al*. 2016, p. 68) writes, "whakapapa is the backbone that permits humankind to interact with their land and landscapes", mahinga kai "stems from whakapapa… which is rooted in the land and in the place names of that land". Philips *et al*. (2016, p. 68) explain that mahinga kai "as whakapapa is reflected in the sites where food is gathered and these sites have whakapapa back to the atua".

When we consume foods from land and sea, we are expressing the whakapapa of the atua and creating a chain of whakapapa from the atua through the habitat to the food to the consumer (Philips *et al*. 2016). Whakapapa also served as a taxonomy of all plants and animals, with the names (which often changed depending on the species' lifecycle) and the narratives that outline and connect the whakapapa containing dense information about "natural resources, including plant and animal life cycles, seasonal biology, habitat, ecosystem, and astronomical relationships" (Roberts *et al*. 2004, p. 7). There are many atua but the most important and relevant here are: Tāne – "god of forest trees, birds and insects, rocks and stones"; Tangaroa – "god of marine and freshwater fishes, reptiles, and other creatures"; Rongo – "god of cultivated foods, and also the deity of peace"; and Haumia – "god of uncultivated or wild foods" (Roberts *et al*. 2004, p. 3). Fleshing this out, Stein (2016, p. 51) explains that:

> Papatūānuku provided the necessities of life, including food and shelter; Tānemahuta presided over the forest, which was also crucial for survival...Haumia-tiketike is responsible for the fern root and other wild foods…The atua Rongo-maraeroa is the god of cultivated foods, kūmara and peace, and is also recognised in manifestations of manaaki.

The atua from who different foods were sourced often determined how these foods could be produced, processed, and harvested. For example, kumara "was regarded as a god under the name of Rongo-marae-roa, and it was considered as eminently 'The food of Peace' never to be contaminated by being cooked in the same oven nor stored in the same place as fern-root which was 'The food of War'" (Treager 1904, pp. 87-88).

*Utu*

Utu, or balance, is another important belief of the Māori worldview shared by Ngāi Tahu. Māori see "a natural order to the universe, a balance or equilibrium, and that when part of this system shifts, the entire system is put out of balance" (Harmsworth and Awatere 2013, p. 274). As Hēnare (2016, p. 132) notes, "in terms of the Māori worldview, people and the natural world are in a state of harmony, or balanced equilibrium towards each other". Restoring balance is an essential focus of the Ngāi Tahu worldview; if an action creates imbalance, it must be counteracted to restore equilibrium. This drive for balance is essential in all relationships, between individuals, between whānau, between hapū, between iwi and with the wider natural world (Mead 2003). Utu also shapes and regulates both mana and mauri. If whakapapa

is the framework that underpins mana and mauri then utu is one of the key beliefs that helps determine them, guiding the way they change towards optimal outcomes.

Utu plays an important role in kai as it regulates all interactions between people and people and the natural world, providing a framework for the values of manaakitanga, kaitiakitanga and whanaungatanga (all outlined below). Utu is the guide for how these values are enacted and the results assessed and interpreted.

*Tapu and noa*

This brings us to tapu and the related concept of noa, both of which denote the "intersection between the human and the divine" (Benton *et al*. 2012, p. 404). Tapu can be understood as "the sacred life force which supports the mauri (spark of life)" (Mead 2003, p. 53). Ngāi Tahu ki Murihiku (2008, p. 27) outline tapu as:

> [T]he status accorded to all elements of the natural world in recognition of the Mauri that exists in them. Tapu involves the appreciation of, and respect for another life force, and life in general. Tapu is also used as a protective measure, a means of social control for understanding and awareness of the spirituality of all things.

While mauri is the life essence, tapu is the sacredness of this essence, with mana as the manifestation of this mauri and tapu. People, places, and objects are all tapu to differing degrees. The atua have the most tapu and everything else's tapu is, to a degree, determined by its proximity to the atua (Mead 2003). As Williams (2003, p. 80) explains, tapu "was seen as the single most pervasive feature of traditional life. It had its own sanctions and anyone who breached tapu would expect misfortune to surely follow". While some people and things are permanently tapu others are only tapu in certain contexts and for limited periods – there is an 'intrinsic tapu' and a 'flexible tapu' (Thornton 1998). Tapu can be damaged and repaired, reduced and increased through various actions and outcomes and as such is a critical concern that guides tikanga and kawa, as will be explored below. Noa is the "balancing state to tapu is noa or profane, common, everyday, free of ancestral influence" (Tapsell quoted in Thornton 1998, 383). Because of both its fundamental importance and the interacting nature and consequent ability to change, tapu was traditionally the "principal mechanism of social order" for Ngāi Tahu (Beaton 2007, p. 24).

Tapu provides a critical framework for thinking about kai, controlling every phase of "preparation, gathering, eating and sharing" (Philips *et al*. 2016, p. 70). This control "meant that resources were used wisely, and it also prevented those without a right from working them" and that for Ngāi Tahu "there were many different kinds of places reserved from general use – especially from any use to do with food" (Dacker in Philips *et al*. 2016, p. 70). Tapu is also closely related to kaitiakitanga as "both the places and the working of mahika kai were controlled by tapu … people did not start working the resource until the tapu was removed, and when they finished, the preservation and the use of the food was controlled by tapu, too" (Dacker in Philips *et al*. 2016, p. 70). An example of how tapu worked in conjunction with kaitiakitanga was (Williams 2016, p. 319):

> [The] customary practice of declaring the river-banks "tapu" for several miles during runs. When the fish were considered to have had sufficient time to advance beyond the tapu boundaries, sprigs of kawakawa were cut by the tohungas who then proceeded along the banks of the river in canoes striking the surface at regular intervals with their kawakawa twigs. The action of striking the water which had previously been declared tapu had the effect of removing the prohibition on fishing.

Tapu's influence over the handling and consumption of food was also powerful. As Fletcher (2007, p. 55) notes, "[c]oncern for tapu was especially apparent in practices relating to the handling and consumption of food". An individual with high tapu had to be fed by someone else because touching the food, which

was noa, or even touching the utensil would compromise their tapu (Thornton 1998). The consequences of tapu were so serious that someone with lower tapu who ate leftover food of someone with high tapu could potentially die (Thornton 1998). Generally speaking, the cooking process made food noa (Thornton 1998), or rather made it noa in the present.

Part of the creation story of the Earth tells of how one atua, Tū-mata-uenga, grew angry at his brothers after they abandoned him in a fight. To get his revenge he "consum[ed] the offspring of his brothers: fish and sea creatures from Tangaroa, birds from Tāne, kūmara from Rongo and aruhe from Haumia-tiketike" (Phillips *et al*. 2016, p. 67). In the process, Tū-mata-uenga made "the food sources noa and prepared them for human consumption". (Phillips *et al*. 2016, p. 67). As Patterson (quoted in Phillips *et al*. 2016, p. 69) explains, "without this precedent, all of the children of the great gods, all of the animals and plants, would be highly tapu and therefore too dangerous to use". However, not all food was noa. Fletcher (2007, pp. 55-56) explains:

> While in daily life, the consumption of sacred food was a sin, in the ritual removal of tapu, sacred food, which sometimes had been waved over a participant, was often consumed. The persons charged with consuming this kind of food included chiefs, senior family members, and priests. Often the ritual of tapu removal was completed by a senior woman called a ruahine.

Thornton (1998, p. 387) provides a useful description of how the 'flexible tapu' could be reduced, making the interaction between higher and lower tapu possible and safe:

> When someone has planted kumara, which is highly tapu, some of the tapu of the kumara has flown into the hands of the planter as he was touching it; the kumara's tapu has 'extended' into the planter's hands. In consequence, the tapu of the hands is now so strong that they are dangerous to himself, for they clash with his original intrinsic tapu. The hands have to be 'covered' (poki) (poki is a ritual term) by a ritual hāngi (earth oven) to be made noa, that is, ready for ordinary use, like eating and so on. This does not mean that the planter's hands lose their own intrinsic tapu, but that the extended tapu from the kumara has been counteracted and removed. There are then degrees of tapu, such as the planter's hands when he has just planted the kumara, and his hands when they have returned to their normal, intrinsic tapu, having been made noa by a tapu-removing ceremony.

Tapu, and mana, lie at the heart of how food is conceived. As Beaton (2007, p. 24) explains:

> Tūmatauenga (a son of Rakinui and Papatūānuku) ate the children of his brothers, i.e.; the birds of Tane, the fish of Takaroa, the *kūmara* of Rongomātane, and the fern root of Haumiatiketike (Reilly 2004:4). In doing so, he desecrated the *tapu* and *mana* of the food, thus making it *noa* (to be devoid of *tapu*). Consequently, we, as human beings, who possess our *tapu* from the *mana* of Tūmatauenga, are able to eat what is essentially our *tuakana* (elder siblings).

This is also expressed by Smith (1975, p. 48) who explains that the "gods, for example Taane, are more powerful than man, but they are also man's food; and when man eats, he either pollutes something more powerful than himself and dies, or he subjugates something less powerful than himself and lives". Patterson (1998, p. 75) also provides an outline of the same story, explaining that:

> [A]ll creatures are naturally tapu, being descendants of the god Tane-mahuta and his brothers, and the precedent for human exploitation of natural resources is encoded in the story of the battles between these brothers, in which Tu-mata-uenga, the warlike ancestor of humans, eventually kills and eats his brothers, thus symbolically removing their tapu. These actions can live on in the descendants of the great atua: when Maori wish to remove the tapu from a food resource, they can recite the appropriate incantations (karakia) thus performing a ritual re-enactment of the action of their ancestor Tu-mata-uenga in eating the ancestor of the food concerned and thus overcoming their godly mana, their tapu…in a Maori world view, humans and other creatures are linked by ties of kinship, so a human chauvinist position is not possible. Much the same sort of justification has to be given for killing a fish

> or a bird or a plant as must, to a westerner, be given for killing a human". For Māori, they "are Tu-mata-uenga, and plants and animals are the brothers and sisters of the Māori".

However, as Patterson (1998, p. 75) also outlines:

> [The Tu-mata-uenga] story can be read as taking it for granted that the whole natural world is tapu, each creature coming under the mana of one or other of the important atua. Thus the story takes it for granted that the natural world is not available for use by humans until the tapu is removed. This means that humans initially have no mana over the natural environment. This environmental mana has to be gained or earned, before food can be eaten and the like. The means presented for present-day humans to gain this mana is through ritual, more or less asking or telling the atua involved to hand over some of their mana to humans. Now, when we thus gain such mana, we humans may be tempted to think of ourselves as superior to the natural world, but this is no more than a temporary and partial superiority. Different creatures must be approached through different rituals, and ritual removal of the tapu of a creature is not a permanent matter but has to be renewed from time to time.

The entwined concepts of tapu and noa are important for understanding not just the sacredness of the natural world but also the legitimate mechanisms by which elements of the natural world can be converted into a still sacred yet eatable resource.

*Whenua, tangata whenua and tūrangawaewae*

Another key component of the Māori and Ngāi Tahu worldview is whenua, or land, and the related concepts of tangata whenua and tūrangawaewae. Informed by many of the concepts outlined above and below, land has a fundamental spiritual resonance for Ngāi Tahu, who whakapapa (connect genealogically) to their land, gain mana from this relationship, and have a responsibility to kaitiaki (guard, protect, and grow) the mauri of the land, and as such, consider themselves tangata whenua – the people of the land – who have "tūrangawaewae, that is, their right to stand on a particular piece of land and to speak and to be heard on matters affecting them and their relationships to that land and its resources" (Tau *et al*. 1991, pp. 1-4). As Tau *et al*. (1991, pp. 3-5) explain, "[a]s all living creatures are born from Papatūānuku (mother earth), and all return to her on their death, Māori consider that they belong to the land and not vice versa". Ngāi Tahu see themselves "as part of our tupuna or landscape, not merely inheritors of it, though we have been charged with the ongoing guardianship of it" (Russell 2000, p. 37). As a Ngāi Tahu participant told Russell (2000, p. 29) in her doctoral research, land is "the place that looks after you and in return you care for it and you care what happens to and on it".

Whenua and kai are intimately connected, the land is seen as nourishing those who hold manawhenua, the "political and occupational authority over a particular area" (Tau *et al*. 1991, p. 3-10) but only if the tangata whenua protect the mauri of the resources, guided by tikanga that protects the tapu. Food is inextricably linked to the whenua (or awa/river, or moana/ocean) from where it comes, the place in which the plant or animal grew and the mauri that it harnessed are a critical component of what that plant or animal is and therefore the geographical and ecosystemic provenance of food is of fundamental importance to Ngāi Tahu (Reid and Rout 2016a). As Reid and Rout (2016a, p. 432) explain, "[f]ood is the product of a nexus of relationships from a place, and as such will be imbued, from a Māori perspective, with unique mauri that comes from its specific whakapapa". Any consideration of kai for Ngāi Tahu must also involve understanding of where the food came from.

## 2.2 Values: Ngāi Tahu kaupapa

*Manaakitanga*

Manaakitanga, as Mead (2003, p. 37) explains, is an ethic of "nurturing relationships, looking after people, and being very careful about how others are treated". Manaakitanga, and the verb manaaki, mean "to support or take care of, to give hospitality to, to protect and look out for" (Boulton and Brannelly 2015, p. 74). Both derive from mana. "A key component of manaakitanga", as Boulton and Brannelly (2015, p. 75) note, "is the idea of elevating your own and others' mana…through sharing material and non-material goods". Manaakitanga "transforms mana through acts of generosity that enhance all, that produce well-being and create a 'climate whereby the mana of all players is elevated" (Boulton and Brannelly 2015, p. 75).

Manaakitanga is arguably the most important of the 'tangas' (an informal shortening referring to values in general) surrounding food. As Beaton (2007, p. 127) explains, "in almost all circumstances, the terms manaaki and kai are collectively exhaustive, one not occurring without the other…The demonstration of manaaki through generosity and hospitality not only ensures the physical, mental and spiritual nourishment of the recipient, but it also enhances the mana of the provider". Food is central to nurturing relationships and this core relationship shapes the tikanga relating to food. In fact, Mead (2003, p. 74) states that "all tikanga are underpinned by the high value placed upon manaakitanga – nurturing relationships, looking after people, and being very careful about how others are treated". As Dunn (2019, pp. 43-44) notes, manaakitanga "is often enacted in the provision and sharing of kai, often in the form of a hākari or ritual feast", going on to explain that "[s]haring kai also affords whānau, hapū, iwi, manuhiri and communities the chance to build and maintain relationships; kai and kōrero (food and discussion) go hand in hand". This is reiterated by Tau *et al*. (1991, pp. 3-14) who explain that manaakitanga "demands that the hosts of a given area prepare local foods for their guests. By providing the best food available, the tangata whenua are paying respect to their important visitors, and also enhancing their own mana". The centrality of upholding manaakitanga to the way food is understood for Ngāi Tahu cannot be overstated.

*Whanaungatanga*

Another key Ngāi Tahu value is whanaungatanga, which emphasises the importance of the "relationship which binds people together through common genealogy; unity of purpose and mutual support" (Ngāi Tahu ki Murihiku 2008). It "embraces whakapapa and focuses upon relationships" (Mead 2003, p. 36). Whanaungatanga is focused on "uplifting and enhancing kinship ties between people and the environment so that both may flourish" (Philips *et al*. 2016, p. 69). Central to the Ngāi Tahu worldview, whanaungatanga "draws a range of duties, rights, responsibilities, obligations and values together in one concept" (Boulton and Brannelly 2015, pp. 73-74). Like all Ngāi Tahu values, whanaungatanga is active, in that it demands the behaviours that enhance relationships. Furthermore, it applies not only to humans but to all cosmic kin (Mead 2003). Whanaungatanga drives the optimisation of both mana and mauri as it also urges care of the natural world as well as intra-human relationships.

Whanaungatanga is often manifested through eating food together, but it can also be fostered through all the phases of food production, preparation and consumption (Moeke-Pickering *et al*. 2015). In relation to mahinga kai, whanaungatanga "refers to the relationships and kinships that are uplifted and enhanced through food gathering – kinships between people as well as the connections between people and place" (Philips *et al*. 2016, p. 69).

*Kaitiakitanga*

Kaitiakitanga is usually translated as the 'exercise of guardianship' (Mead 2006), but can also mean "conservation, fostering, protecting, sheltering" (Marsden 2002, p. 67). Kaitiakitanga is an ethic to protect, conserve and, where possible, increase the mauri of the natural environment (Philips *et al*. 2016). Williams (2016, p. 319) explains that it has two dimensions:

> On the metaphysical level it refers to the various ways in which atua are manifest to support the present generation; each atua being seen to have its own area of concern. On the practical level, the practice of kaitiakitanga requires the Manawhenua linked with resources in a particular locality, to mirror the kaitiakitanga of atua for the good of the entire descent group.

As noted above, kaitiakitanga is driven by the understanding that all of creation is connected through whakapapa and that Ngāi Tahu have an obligation to protect and increase the mauri of their kin to preserve the tapu by nurturing relationships through whanaungatanga.

Kaitiakitanga was a critical, fundamental even, guide in the foraging for, and production of kai. "Kaitiakitanga," Philips *et al*. (2016, p. 71) explain, "as a discourse of mahinga kai is principally concerned with the preservation and protection of mahinga kai sites and practices, which was upheld through various tikanga such as rāhui [temporary ban on harvesting]". As well as the rāhui, which was used to protect a resource if there was some population decline or other concern regarding the long-term viability, there were other tikanga that saw kaitiakitanga manifested in practice. Williams (2004, p. 143) explains that "harvesting of most resources focused on mid-size individuals. Not only did the first fish caught go back to Tangaroa, so did many an oversize specimen. Any species not actually being sought would usually go the same way". Ngāi Tahu took great care "to ensure that only the excess of young birds and fish were taken, leaving the breeding stock, and thereby sustaining the resource" (Garven quoted in Williams 2004, p. 143). There were many tikanga focused on ensuring that Ngāi Tahu upheld their obligation to be kaitiaki (guardians), ranging from those that focused on habitat maintenance through population improvement, as well as the harvest prohibition and sustainable harvest rules outlined above (Williams 2004). These tikanga did not just apply to threatened resources but generally "[e]ven plentiful foods were managed" (Williams 2016, p. 319).

*Rangatiratanga*

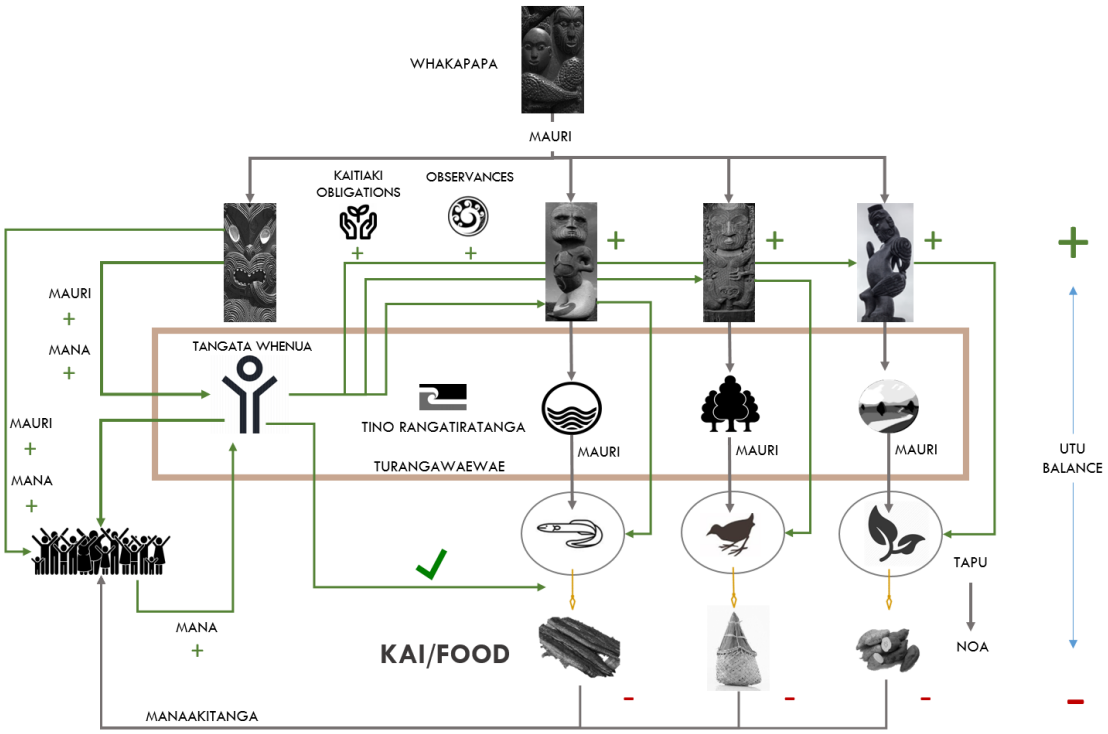
The term rangatiratanga dates back to the Treaty period, but has become a keystone of the Māori worldview – in many ways it is a component of mana. While the term was not used before contact, it will be examined here because of its connection to mana and its centrality to modern Māori thought (Jackson 2013). Rangatiratanga is "the art of weaving groups together into a common purpose or vision" (Royal quoted in Jackson 2013, p. 4). Mutu (quoted in Jackson 2013, p. 4) believes it is "is high-order leadership, the ability to keep the people together, that is an essential quality in a rangatira. The exercise of such leadership in order to maintain and enhance the mana of the people is rangatiratanga". According to Mead (2006, p. 37), it is "associated with political issues such as sovereignty, chieftainship, leadership, self-determination [and] self-management". Critically, having rangatiratanga is essential for the expression of the other beliefs and values. It is, as noted by Mutu (in Jackson 2013), closely connected to mana. Referencing the Waitangi Tribunal, Jackson (2013, p. 10) explains that "'rangatiratanga' and 'mana' are inextricably related. Rangatiratanga denotes the mana not only to possess what is yours, but to control and manage it in accordance with your own preferences". In some senses, mana is the more personalised and spiritual/metaphysical form of authority, while rangatiratanga is an impersonal concept that denotes authority in action.

At the most basic level, rangatiratanga was essential in the sourcing of all food as having authority over resources was central. The rights to all resources within a rohe (territory) were ultimately held by the rangatira or chief, and utilised by different sized groups from hapū to whānau to individual, depending on the resource as well as the human power and technology needed to harvest it. A key part of a chief's mana came from their rangatiratanga over resources. Likewise, rangatiratanga enables kaitiakitanga, meaning that it is important for the protection of food resources.

## 2.3 Synthesis – Core concepts underpinning beliefs and values

The above analysis has outlined the underlying worldview, beliefs and values underpinning the cultural attributes of food from a Ngāi Tahu and Māori perspective. All of the key concepts and values are brought together in Figure 2.2 below to demonstrate the synthesis between these elements and to highlight the fundamental cultural attributes of food. Firstly, the diagram demonstrates the concept of whakapapa, whereby the two principle atua Ranginui and Papatūānuku (Sky and Earth) given rise to several offspring, Tangaroa, who represents the water animals, Tane Mahuta, who represents plants and the animals of the forests, Rongomātāne, who represents cultivated land and plants, and Tūmatauenga, who represents human beings. This whakapapa symbolically represents how humans are cousins or related to all other living things. It may also be interpreted literally, as DNA research now shows us that all living things are our relations who are given life by elements derived from the earth and sky. Furthermore, in Western parlance, the atua may be understood as symbolic representations of different eco and social system types: forest, water, modified/cultivated, and human.

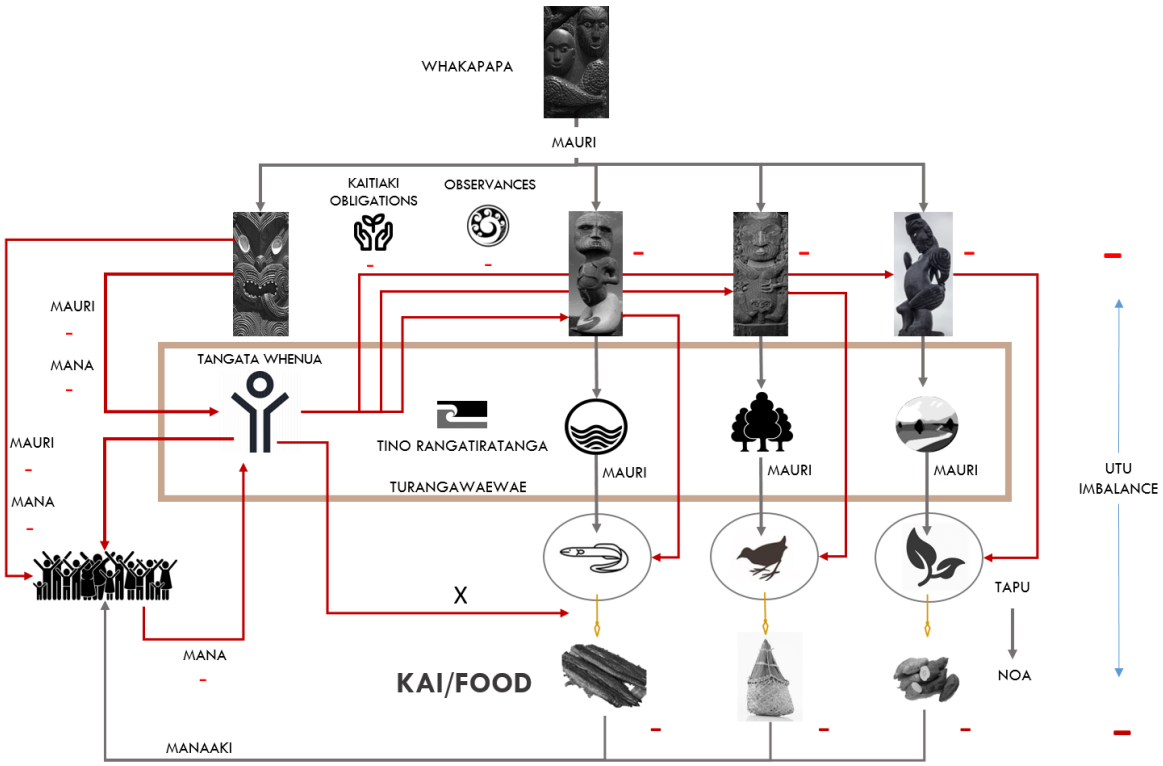
**Figure 2.2: Core Concepts in Relations to Credence Attributes – Positive Cycle**



Secondly, the figure outlines the process by which members of the family are morally permitted to become food. It is demonstrated how the mauri (vitality, or life-giving property) of things originates with Ranginui and Papatūānuku and moves to the atua, through whom it also travels to their offspring – humans, animals, and plants. In their normal state these offspring are considered tapu, or sacred, intrinsically valuable: consuming them would therefore be morally wrong. To overcome offence, the atua should be treated with dignity, deference, and respect to create a net positive relationship with them. This involves acting as kaitiaki, ensuring that actions grow and enhance the mauri of the different atua or ecosystem functions. Furthermore, it requires ritualistic observances to be met that signal to the atua that tangata whenua are in a state of humility and deference. With this net positive in place, the animals and plants of the atua become noa and may be consumed. Although consuming the plants and animals has a net-negative accounting effect, it is balanced by the positive of kaitiakitanga and deferential actions, maintaining utu or balance.

Thirdly, Figure 2.2 represents how tangata whenua require tino rangatiratanga, or self-determination, to perform their kaitiaki obligations and control the way in which the land, water, forests, and cultivated lands are related to, or managed. If these are treated well, the mauri of tangata whenua will be maintained or increased. From a Western human-centric understanding, this can be explained as maintaining the health and functioning of lands, water, and forests to maintain the health and wellbeing of the humans who depend upon them. From a Māori perspective, this will be interpreted as the atua conferring mana, dignity, and mauri to tangata whenua. Furthermore, this relationship is fundamental to establishing a sense of standing and connection with the atua through place referred to as tūrangawaewae – a place-centred identity embedded within a mana-enhancing relationship with non-human kin.

**Figure 2.3: Core Concepts in Relations to Credence Attributes – Negative Cycle**



The food produced through these net-positive relationships with place and the atua that unfold through that place, may now be shared with others. The impact of doing so will be to raise the mana and mauri of those consuming the food, given that the actions of tangata whenua are positive overall. Furthermore, the act of sharing itself further raises the mana of those who have shared. However, these net-positive mauri and mana-enhancing relationships can also be reversed. This is demonstrated in Figure 2.3 above. Failing to act as a kaitiaki and with humility in observances leads to the mauri of the atua being diminished, which in turn makes the taking of food overall offensive and negative. The impact is an imbalance with the atua which must be balanced by reducing the mauri and mana of the tangata whenua and in turn those who consume the food they produce.

In terms of the cultural attributes of food, we can conclude from this analysis that for Ngāi Tahu and Māori in general the most important are mauri and mana. This is because the consumption of food may be considered either mauri and mana enhancing or reducing based upon whether the food is procured from environments that are managed through kaitiaki-inspired actions and relevant observances, or not. Other cultural attributes are related to these core concepts and include:

- *Noa* – Food that is ethically 'activated' for consumption – that the sacredness of the food has been acknowledged, and that the transition from the sacred state to the state ready for consumption has been successfully bridged. From a Western perspective it may be communicated that the food has been produced, or procured, in a way that acknowledges the intrinsic value and dignity of living and non-living things.

- *Utu* – Food that is produced through human-environmental balance – food that emerges from a relationship of balance between the atua and tangata whenua, which ensures the mauri and mana of both is enhanced. This may be explained to a Western audience as a relationship of mutualism, balance, and respect between humans and the ecological systems that support them.

- *Whakapapa* – Food that is produced through non-human familial relations and equality with the natural world. We are all part of a genealogical flow of connections and relationships that should be treated with reverence. These plants and animals, like us, are protected and nurtured by atua that are the children of the earth and sky. From a Western perspective whakapapa may be understood from a genetic viewpoint whereby all plants and animals are to some extent cousins and genetically related. However, most importantly whakapapa acknowledges the beings of the world as kin and determines that humans are part of nature rather than separate or superior to it. There are several ways in which this can be communicated to a Western audience. The first is by comparing it to the insights provided by DNA and the tree of life, showing the relative similarities with whakapapa. The other way is through the concept of Gaia or Mother Earth, which encapsulates much of the same way of seeing the natural world (both are examined below).

- *Tino Rangatiratanga* – Food that is produced by those seeking greater political control over their lands to fulfil their kaitiaki (guardian) obligations to their non-human relations. This can be communicated to a Western audience using the concept of food sovereignty, or simply as the exercise of sovereignty in relationship to food.

- *Tūrangawaewae* – Food that is produced by those integrated, embedded, and within standing in a place and the non-human communities that reside there. From a Western perspective, this can be communicated using concepts like alternative food networks and short supply chains (both examined below).

- *Kaitiakitanga* – Food that is produced by those guarding the environmental for future generations of human and non-human communities. The best way of communicating this to Westerner consumers is by comparing it to environmentally sustainable food production though the intrinsic motivations need to be emphasised as (explained below) this is a highly contested space.
- *Manaakitanga* – Food that emerges from contexts in which human relationships and social wellbeing are placed at the centre of production. From a Western perspective, this can be explained in terms of ethical operations that consider staff wellbeing.

There is potential for some, or all, of these traditional cultural credence attributes to appeal to consumers in different markets that are seeking food from people producing with deep ethical relationships and commitments to communities that extend beyond human. This will be the focus of the second part of this report, which examines ethnic, religious and national cultures first, before considering the more specific field of food movements or related subcultures.

# Chapter 3
# Behaviours: Ngāi Tahu Tikanga about Food and Food Producing, Hunting and Gathering, Trading, Preparation, Consumption, Flavours and Types

This chapter examines Ngāi Tahu behaviours regarding food. It focuses on early and precolonial periods with the aim of outlining traditional practices. In this chapter, many of the concepts explored in the previous chapter are given practical context. Two terms, tikanga and kawa, are used throughout. These terms require untangling. Tikanga means the "right way of doing things" (Marsden 2002, p. 66) or the 'Māori way of doing things', with 'tika' itself meaning 'right' or 'correct'. Mead (2006, p. 17) explains there is a distinction regarding tikanga, which can refer to "the knowledge base and ideas associated with a particular tikanga" and "the protocols associated with the correct practice of tikanga". Kawa means 'protocols' and while tikanga can encapsulate kawa, "some practices or protocols may be called kawa. When this occurs, the knowledge base is the tikanga Māori aspect and the practice is the kawa" (Mead 2006, p. 17). That said, this can be reversed in some iwi (Mead 2006). Ngāi Tahu define tikanga as 'custom, habit, practice' and kawa as 'protocol', putting them in line with Mead's definition. Where the difference is discernible, it will be highlighted here, though regarding interviews the term used by the participant will be used. Therefore tikanga is understood here as "[having] been handed down through many generations and accepted as a reliable and appropriate way of achieving and fulfilling certain objectives and goals" (Marsden 2002, p. 66). Likewise, kawa is seen as the application of these rules, in some contexts. The concepts of tikanga and kawa will be used examine the behaviours regarding the producing (hunting, gathering and fishing), preparation and consumption of food from a Ngāi Tahu perspective.

## 3.1 Ngāi Tahu food producing, hunting, and gathering

From a traditional perspective, all aspects of Ngāi Tahu food procurement, production, processing, and consumption were guided by tikanga and kawa, and were a mix of both practical and spiritual activity (Stein 2016; Waitangi Tribunal 1991). For Māori, the "the super-natural is intertwined with the practical… Religious ceremony was traditionally incorporated in the collection of food." (Major 1964, p. 7). Growing and harvesting practices had "a spiritual basis and were informed by whakapapa kōrero (philosophical narratives consisting of genealogies and stories passed down from ancestors)" (Stein 2016, p. 50). According to Smith (quoted in Stein 2016, p. 50), "food gathering and cultivation was viewed in whakapapa kōrero as an interference in the balance of particular ecosystems and ritual acknowledgements through karakia (prayers) made to guardian atua that provide the resources and take care of the balance of these systems".

Regarding horticulture, many of the key species that were cultivated, such as the hue (gourd), taro and yam, did not grow in the South Island, while the kumara was limited to north of Banks Peninsula and even above this line required specialist methods of both cultivation and storage (Hargreaves 1963). Consequently, Ngāi Tahu divided into hunter-gatherers in the southern part of the takiwā, and hunter and gathers who also cultivated in the north (Anderson 1998; Williams 2004). Ngāi Tahu also "semi-cultivated" endemic species such as aruhe (fernroot) and poroporo (Millar 2015). That said, strict delimitations are difficult as many Ngāi Tahu were semi-nomadic and different kainga focused on different resources at different times of the year. Still, the boundary line for kumara growth remained consistent around halfway down Ngāi Tahu's takiwā over time, give or take small fluctuations due to climatic shifts and weather changes.

Even in regions where cultivation of the key crops was optimal, they were not always the primary source of food but rather supplemented what was hunted and gathered, with the debate over whether fern root or kumara was the principal vegetable going back many years (Shawcross 1967). Cultivated crops were not a staple but a seasonal luxury for Māori across New Zealand (idem). The depth of knowledge regarding how to grow and store these vegetables brought from far warmer climates was impressive and, as Cumberland (1949) notes, Māori had names for over thirty different types of soil.

While most Ngāi Tahu did not cultivate kumara the proscriptions around its production and harvesting are insightful. Like all food gardens, the kumara garden was tapu "from the commencement of work to the harvesting of crops" (Mead 2003, p. 69). The crop had to be planted facing east towards the sun (Millar 2015). Kumara had to be harvested at a specific time – when the star Whānui (Vega) had reappeared in the sky – and according to a set of protocols, with the tohunga cooking and eating the first kumara harvested to remove the tapu of the crop and those harvesting the crop required to fast (Best 1931). "Tikanga", as Stein (2016, p. 50) explains, "guided agricultural activities done in groups, with rituals and karakia which accompanied planting". The blending of sacred and practical was fundamental to these processes.

Māori hunting and fishing changed during the pre-contact era, with the extinction of the moa and the drastic drop in seal population necessitating the hunting of smaller birds and an extension in fishing. Māori were expert fowlers, using a number of different snares to catch a wide variety of different birds (Cumberland 1949). By the late period, Ngāi Tahu had become sophisticated fishers. Hunting was guided by various cultural practices, with karakia being "performed before a tribe could slay the offspring of Tane in order to make a canoe or construct a whare runanga and before they could trap and snare the wildlife of the bush" (Cumberland 1949, p. 407). "The first bird killed during any harvesting expedition", as Kirikiri and Nugent (1995, p. 56) explain, "was always laid aside as an offering to Tane, after which the hunters had his tacit approval to catch birds for themselves".

The traditional tītī (muttonbird) harvest of southern Ngāi Tahu was also guided by strict kawa. One kawa was that only chicks could be harvested, those who killed the adult birds faced severe repercussions, even death (Kitson and Moller 2008; Rout *et al*. 2019). This restriction served to protect the reproductive birds, ensuring the ongoing survival of the population. Areas of the muttonbirding islands are tapu, with many of these being places where the ground is so soft that walking there would damage the bird burrows (Kitson and Moller 2008).

Fishing was conducted under similar strict kawa, as noted the first fish was usually returned to Tangaroa, but the catching of virtually all species of fish were governed by rāhui prohibiting when they could be caught. As Williams (2004, p. 81), referencing Peter Ruka Korako's evidence at the Waitangi Tribunal, explains:

> From what I was told there are three fishing kits/kete. The First kit/Te Kete Tai-uri (Rocks, rivers and lakes) set times with Rāhui imposed. The Second kit/Te Kete Tai-a-tea (Inshore fisheries) only at specific times. The Third kit/Te Kete Tai-nui (Deep Sea Fisheries) all year round. The Tohunga held either or all of the kits depending on their whakapapa, to and from the sources of their informant/mentor.

There was more kawa around ocean fishing than freshwater fishing, likely because it was riskier – thus requiring more rules – and also because there was greater tapu to be considered due to the might of Tangaroa (Best 1929).

There were kawa regarding gathering as well, including that only what is needed is taken, that menstruating women were not allowed to gather seafood or vegetables, and that nothing should be gathered from tapu areas such as marae, wāhi tapu (cemeteries) or locations where people have died

(Beaton 2007). These rules were intended to conserve resources and to protect tapu. As William (2010, p. 151) notes, "shucking pāua (*Haliotis iris*) or gutting fish below the high tide mark was known to be inimical to the well-being of the species as it encouraged predators. More generally, it showed disrespect for the sea."

*Mahinga kai*

Mahinga kai is a fundamental concept and a crucial element of Ngāi Tahu culture. "Mahinga kai", as Philips *et al*. (2016, p. 64) explain, "has multiple interpretations. Broadly, mahinga kai is described as a traditional Māori food-gathering practice with significance also attached to food-gathering sites, with 'mahinga' meaning 'sites denoting work' and 'kai' meaning 'food'". Williams (2010), providing a Ngāi Tahu perspective, states that "the inclusion of the word 'kai' has led many to infer that it refers only to places where food is harvested" but it more accurately refers to all areas where resources of any sort are gathered. Mahinga kai refers to both the food and resources as well as the sites they come from. Tau *et al*. (1991, pp. 2-4) explain that mahinga kai is "food and other resources, and the areas that they are sourced from". As Howse (quoted in Revington 2017, p. 11) explains:

> Mahinga kai epitomised values that are at the core of what it means to be Ngāi Tahu… Manaakitanga, kaitiakitanga, whanaungatanga… all those principles that Ngāi Tahu embrace today. Mahinga kai gives you all those things.

Mahinga kai is closely connected to the concepts of mauri and whenua as well. "Production of food," Revington (2017, p. 11) explains, "was essential to survival in the relatively harsh environment of Te Waipounamu, and to identity, as mahinga kai was considered the currency of Ngāi Tahu". It is important to stress that mahinga kai was not just 'food and its sites or sources', but has a far deeper importance. One interviewee, using the Ngāi Tahu dialect version of the term, told us that "*mahika kai can be, in its broadest sense, sustenance*".[2] Expanding on this he went on to explain that this encompasses the full scope of sustenance, from physical wellbeing to cultural, psychological, social and spiritual wellbeing.

There is an obvious connection with whakapapa, as both the food and the sites are tipuna; as Russell (2004, p. 221) notes, mahinga kai "stems from whakapapa . . . which is rooted in the land and in the place names of that land". Phillips *et al*. (2016) expand on this – referring to two creation stories – explaining that the "sites of mahinga kai stem from the separation of Ranginui and Papatū-ā-nuku narrative through the emergence of the natural environment, while the practice of mahinga kai stems from the retribution of Tūmata-uenga narrative through the first account of eating food". Mahinga kai is about interacting with atua and natural kin. Mahinga kai sites were, and continue to be, critical to the tribe's way of life (Revington 2017, pp. 11-12):

> Ngāi Tahu tīpuna or ancestors hunted and gathered animals and plants the length and breadth of Te Waipounamu. Over many generations they developed mahinga kai patterns based on the seasons and life cycles of various birds, animals and plants.

Traditionally, mahinga kai sites were carefully divided up, with different Ngāi Tahu individuals, whānau (family) and hapū (a band of related whānau) having rights to different areas depending on the size of the resource, the required labour to hunt or gather it, the seasons it could be hunted or gathered and other contextual factors (Williams 2003). This division into various mahinga kai rights was not just practical in that it meant each individual or grouping had access to sites that they could effectively utilise and would supply enough resource, but it also enabled the fulfilment of kaitiakitanga as the resource was looked after by a specific individual or group (Williams 2003).

[2] Interviewee 1.

The widespread seasonal and varying resources of the South Island meant that hunting and gathering mahinga kai required a high degree of mobility. Ngāi Tahu archaeologist Atholl Anderson (quoted in Stevens 2018, p. 80) described mobility as "almost a defining characteristic of the southern people". The need for food drove mobility and this mobility meant that, compared to other Māori, Ngāi Tahu had a different lifestyle and this helps to explain the centrality of mahinga kai to Ngāi Tahu culture. Of course, Ngāi Tahu were not only traveling to food but were also harvesting food as they travelled. The Waitangi Tribunal (1992, p. 191) explains that:

> Long distance travel allowed Ngai Tahu to trade amongst themselves and to keep their rights to distant resources alive. These trails were not just easy routes across a harsh terrain: they had to follow food resources. While a war party could cover these large distances in very short periods of time, the usual pace was more leisurely. Preserved food, such as dried fish, could sustain travellers in a hurry, but families travelled at a slower pace, stopping for different periods of time at places where eels were plentiful, weka easily caught, or some other food obtainable. Knowledge of the route included knowledge of where all these foods could be taken.

*Rāhui*

The concept of rāhui, mentioned above regarding muttonbirds, is a tikanga that guided, and in some cases continues to guide, all components of hunting and gathering. A rāhui is a temporary prohibition or protection on a resource, location or mahinga kai site (Maxwell and Penetito 2007; Wheen and Ruru 2011). While there are a number of different reasons a rāhui may be put in place, a primary one is to protect the resource from overexploitation (Wheen and Ruru 2011). This 'conservation rāhui', as Mead (quoted in Wheen and Ruru 2011, p. 170) notes:

> … seem to have been associated … with control of resources or the good of the whole community [and] also with the political use of resources. In the former, common-sense regulation of bird, fish and plant life seems to have been a consideration…. [It is also] evident that the conservation rāhui was sometimes used by the chiefs for political reasons which might have been related to the 'foreign policy' of the tribe or might have been for the personal aggrandisement of the rulers.

There is a clear connection with kaitiakitanga; the rāhui is a behavioural manifestation of this value. The rāhui could be instated "with or without 'teeth', the 'without teeth' forms being milder because they do not call upon the dread powers of the gods to enforce them… If certain prayers and rituals are performed when a rāhui is instated, the powers of the gods become part of the rāhui and give it teeth or supernatural enforcement" (Maxwell and Penetito 2007, p. 2). The rāhui could, then, be empowered by the atua or, with regard to the toothless version, could be empowered by the mana of a chief or tohunga. Ngāi Tahu used rāhui as a means of controlling seasonal food resources, amongst other purposes, with rāhui in place on tuna (eel), kiore (rats) and tītī (muttonbirds) (Maxwell and Penetito 2007, p. 2).

*Food exchange*

There were many different levels of 'food exchange' across Ngāi Tahu, from the informal and ad hoc to the formal and ritualised. Non-market exchange has been divided up in a number of ways. Here it is useful to understand it along two spectrums. The first spectrum describes the main driver of the exchange, with utilitarian 'barter' at one end and 'gifting' as a form of social obligation at the other. The second spectrum is focused on the group dynamics, with the hierarchical and centralised 'redistribution' exchange within a group at one end and the flat intra and inter-group 'dispersal' exchange at the other. To be clear, these are represented as being on continuums because often exchanges involved degrees of both, particularly on the barter-gifting continuum. Ngāi Tahu had examples of exchange along both continuums. Small scale barter and gifting within the group, larger barter and gifting between groups as well as both redistribution and dispersal.

That said, as Williams (2004, p. 88) explains, "[h]okohoko [barter] was usually an irregular event involving groups without rights to the desired resources. If regular trade became established, it was ritualised… to a form of gift exchange". All exchange was premised on mutual benefit, with respect to gifting this involved both tangible benefits that come from the items themselves it also provided intangible benefits through increased social obligation, while barter was more focused on the tangible benefits. Food would have been one of the most common items of exchange, with the main tangible benefit being the dispersal of geographically specific or rare foodstuffs or the redistribution of foodstuffs to those who needed them.

As a core component of the Ngāi Tahu economy – itself not an abstract that existed outside or beyond 'society' as it is conceived in modern terms – food exchange was fully embedded within and regulated by the core beliefs, values and behaviours. The traditional economy has been described as a 'moral economy'. That is, as McCormack (2008, p. 46), explains:

> [A] type of economy where the relations of production are based on kinship and in which the mechanisms of redistribution tend to play a levelling role amongst the members of a given community. The premise is that in times of hardship the basic items of consumption necessary for survival will be accessible to those in need.

Spiller *et al*. (2011, p. 225), referencing Henare, explain that traditionally:

> Māori had an existing economic framework with stable, well established protocols for the conduct of trade to meet the needs of the individual and the collective. Their distribution systems were far reaching, and trading relationships were secured and strengthened through an 'economy of affection'.

These exchanges were embedded in the wider BVBs, with mana, utu, tapu, whanaungatanga and manaakitanga particularly important (Petrie 2013). As one interviewee told us:

> *The best way of expressing cultural attributes is through whanaungatanga… so traditional trade agreements were made through relationships and these were tapu because there were elements of sanctity around it. There is ritual around these relationships that make them sacred that add value to the production chain as well. There is the exchange of mana between parties.*[3]

The traditional exchange of mahinga kai, driven by the widespread, seasonal and varying nature of the resource and fuelled by the mobility required to harvest the required amount of food, meant that Ngāi Tahu had quite complex 'supply chains' for the size and developmental stage of their society. As Stevens (2018, p. 82), explains:

> Kūmara were grown at Kaiapoi Pā, near the southern limit, and valuable mahika kai (wild-foods) were located to the south. Millions of tītī (sooty shearwater/mutton-bird) that nest on islands clustered around Rakiura (Stewart Island) were especially important as a winter food source and valuable trade item. Groups from Kaiapoi made seasonal visits to these islands to harvest and pack pre-cooked juvenile tītī into bags made of cured bull kelp, called pōhā… the village functioned as a trading hub; as Tipene O'Regan has observed, it was to the wider Kāi Tahu resource economy as Singapore was to the British Empire. Its name, Kaiapoi, reflects this, denoting a place where: 'Kai' must be 'poi' or swung to the spot … potted birds from the forests of Kaikōura in the north; fish and mutton birds from the sea-coasts of the south; kiore [Polynesian rat] and weka [small flightless birds] and kāuru [cabbage tree stem] from the plains and mountain ranges of the west.

As Rakiihia Tau told the Waitangi Tribunal (1992, p. 890), "[t]rade was and still is the base of our culture and our social order, as it is to all cultures", with food as the main item of trade.

[3] Interviewee 1.

Muttonbirds serve as a good example of food exchange. They were a precious commodity that was relatively common for a small segment of Ngāi Tahu and were highly desired by all Māori. This meant they were subject to the full scope of exchange, unlike bracken which was a common staple and would unlikely to have been exchanged much beyond the whānau level. The high chief, who was based at Ruapuke Island, used redistribution within Ngāi Tahu and a mixture of barter and gifting with other iwi (Anderson 1980; Stevens 2006; Williams 2004). Undoubtedly, the high chief did not control all muttonbirds harvested – whānau would have kept their own supplies to get through the winter months and it is possible they also used their supplies to exchange for other items. They were exchanged between whānau groups, within the hapū and between iwi, with redistribution, dispersal, barter and gifting all playing a role.

One of our interviewees provided a contemporary lens on the traditional trade, using weka to explain the value chain of traditional trade. He noted that every step in harvesting was a value added step, from preserving them to transporting them, then they were stored for winter and the surplus was traded, "*so value add, from the harvest point, transport to the storage centre and then also the trade centre, it involved transport and organisation of labour. Everything we do now we were doing then, thought it involved different scales*".[4]

For Ngāi Tahu, one of the key means of inter-group dispersal was the kaihaukai. Firth (1972, p. 328, note 3) defined kaihaukai as "a return present of food made by one tribe to another". However, in the Ngāi Tahu context referring to kaihaukai as a 'return present' fails to capture its true purpose. Williams (2004, p. 89) explains that for Ngāi Tahu kaihaukai "is not necessarily a return feast" but rather "the main focus of kaihaukai in the south was to distribute surpluses of food". Tikao (1990) explains that in contrast to the hākari, the foodstuffs were not feasted on by the exchanging parties after kaihaukai but were instead taken home. The kaihaukai was a way of redistributing unique foodstuffs, as Dacker (1994, p. 9) explains, it involved "the exchange of speciality foods of different hapū from different rohe coming together following the return of the harvest", concluding that this "exchange was the basis of the traditional economy".

## 3.2 Ngāi Tahu food preparation

Māori had five key ways of preparing food: "cooking in an earth oven (hāngī or umu), roasting/grilling, boiling, preservation and fermentation" (Beaton 2007, p. 28). The hāngi/umu was far more highly valued than roasting or grilling, with the latter two methods associated with a 'rushed' meal that might be prepared in times of conflict, though fish and birds were sometimes grilled over fires (Beaton 2007). Boiling was not used that often, usually done in appropriately shaped stones or a tōtara vessel, with seaweed often boiled into a form of jelly and birds were rendered down and preserved in their own fat through boiling (Beaton 2007). Preservation was very important, as food sources were unreliable and Ngāi Tahu needed stores to see them through lean periods (Beaton 2007). The most common methods were sun-drying, smoking, salting, boiling and fermenting (Beaton 2007). The tītī were boiled in their own fat in a tōtara vessel, then placed in poha (kelp bags), which meant that this prized commodity could be traded up and down the length of the North and South Islands as it was so well preserved (Rout *et al*. 2019). Fermenting was done to both seafood and fruit, which also helped preserve these food resources.

Traditionally there were also various tikanga and kawa regarding food preparation given that people are tapu and food is noa (Beaton 2007). Māori never cooked food in the same buildings in which they slept or near toilet areas, kai was either cooked in the open air or in special cooking sheds, protecting tapu and

[4] Interviewee 1.

ensuring food safety (Royal and Kaka-Scott 2013). Much of the tikanga and kawa around food preparation relates to food safety, such as never serving leftover food to guests, separate preparation areas for different types of food, no one who is sick gathers food and never using food containers for any other purpose (Wilson 1998).

## 3.3 Ngāi Tahu food consumption

This section outlines more general aspects of food consumption before focusing on some of the more critical aspects separately.

The number and timing of meals Māori had every day is impossible to accurately outline, as it would have changed with the seasons and been dependent on food supply and on the other tasks people were occupied with. It may have varied regionally as well. Best (1902, p. 47), with specific reference to Tūhoe, explained how:

> Māori would have two meals a day. They would rise early and proceed to the work of the day, in the cultivations or elsewhere. Having worked several hours, they would partake of the first meal, prepared by the women, at nine or ten o'clock. They would then recommence work and proceed until quitting-time, which was usually early. After this the second meal was eaten.

This is likely too prescriptive and while this may have matched the way Tūhoe ate, at least some of the time, it is unlikely to form a hard and fast rule that can be applied to Ngāi Tahu – particularly as Ngāi Tahu were largely nomadic and relied on less guaranteed food sources. Still we can assume that there were some 'natural' rhythms Ngāi Tahu had for meals in 'normal' times.

While also likely another generalisation, Firth (1926) notes that food was "consumed in the daily meals which were partaken of in common on the marae, or central space of the village. Every three or four persons had a little basket of food among them, round which they squatted and helped themselves with their fingers." While this was in reference to the food gathered and stored communally, it seems likely that in some cases and particularly with foods gathered at an individual or whānau level, some consumption may have occurred in smaller units.

Diet is also hard to determine as it would have been victim to the same vagaries and variations as meal timings. That said, most "traditional diets included birds, seafood, berries, wild vegetables, herbs, and roots, collected from the sea, forests, and rivers, such as aruhe (fern root), pikopiko (fern shoots), pūhā (sow thistle) and watercress (green leafy vegetables)" (Stein 2016, p. 49). As described above, the Ngāi Tahu diet would have been far more seasonally and locationally dictated than most northern tribes. Leach believes that "Maori living in southern New Zealand had few plant foods before the introduction of potatoes and other European foods".[5]

Where it was too cold to grow kumara, the main form of starch was fern root. This involved time-consuming digging, drying, then roasting in ashes in order to eat. Other sources of starch were stems and tap-roots of young cabbage trees and tree fern though these took a long time to cook in an umu. There was also highly poisonous plants like karaka (in warmer areas) and tutu, though these had to be processed in particular ways to get rid of the toxins. In contrast, in the South Island, fish, shellfish, eels, birds and seals were plentiful.

"Maori foodstuffs", Beaton (2008, p. 27) explains, "were sorted into categories, similar to those in the Pacific of staples and relishes. In New Zealand these were known as kai and kīnaki respectively". Relishes "usually consisted of a flesh food - birds, fish, rats or kuri (dog)" (Beaton 2008, p. 27). However, for Ngāi

[5] https://www.odt.co.nz/lifestyle/food-wine/earliest-maori-diet-quite-different.

Tahu this division between staple starch and relish flesh may not have been as rigid or even held to due to the differences in resources from the northern areas. For some iwi, "some foods such as kereru and kiore had a luxury status as special foods provided only for women – needing the maximum nutrition for child-bearing -- and for visitors, to enhance the mana of the marae".[6]

There was a number of tikanga and kawa associated with food consumption. As noted in the tapu section, those with high tapu were fed by others to avoid losing some of their tapu by touching the food (Thornton 1998). Likewise, it is not permissible to pass food over someone's head as cooked food violates tapu (Mead 2003). Karakia were performed before meals, and there were numerous kawa that surrounded special meals (Best 2005). Whakataukī (proverbs) were also used as a way of regulating consumption, for example there were a number that sought to restrict gluttony when it came to sharing communally grown or harvested food (Firth 1926).

*Hākari*

Hākari are ritual feasts that "occurred on account of special events, such as births, marriages, harvesting, victory in war and tangihanga (funerals). While hākari were used as a means for celebration they generally played a more important role in removing tapu. For example, the hākari at the end of a tangihanga released the participants from the mourning process and the tapu surrounding the dead" (Beaton 2007, p. 25). Hākari were held for several reasons, including birth, marriage, death, exhumation of the deceased's bones and the building of a meeting house. It was a highly ritualised process, with extra food grown, hunted, and harvested up to a year in advance. The food was handed out in a specific manner as well. Firth (quoted in Rubel and Rosman 1971, pp. 662-663) explains:

> The master of ceremonies was not regulated by any fixed principles of partition or supply, but was guided by the arrangement of the heaps, and the wishes of his people, using his own discretion when required. In this he took into account the rank and authority of the persons in each group, in order to insure that they should receive a share relatively in consonance with their social position, and perhaps even more important, that due precedence should be followed in the distribution. It would be regarded as a grave breach of etiquette by a chief of high descent in the tribe if the head man of a minor hapū had his portion allotted to him first. If done deliberately, it would be considered as an insult. The position of master of ceremonies at a large feast, when representatives of many allied hapū were present, was no sinecure. He had to be familiar with the rank of all the principal guests, and to be fairly expert in genealogical matters in order to place correctly the elder and younger branches of the tribe . . . With the Maori, however, the affair must have been relatively easy since so many of the elders were accomplished genealogists.

The food was even displayed in a way that reflected the various rankings of those attending (Rubel and Rosman 1971).

## 3.4 Synthesis – Traditional food practices and cultural credence attributes

Throughout the discussion above many of the core concepts outlined in the previous section are clearly illustrated through food-related practices. A strong theme concerns practices that ensure a bridge is created which allows procured plants and animals to transform from a state of tapu to a state of noa. Observances in many forms underpinned by traditional foraging, procuring, planting, management, processing, and eating protocols to ensure that the atua were acknowledged, and that a positive relationship was maintained with them. These included the following:

[6] https://www.doc.govt.nz/Documents/getting-involved/nz-conservation-authority-and-boards/nz-conservation-authority/maori-customary.PDF.

- The performances of karakia to the atua at different stages of food production;
- The returning of 'first take' back to respective atua;
- Ensuring that the processing of food did not take place in the domain of the atua from which it was procured; and
- Distinguishing between places considered tapu and noa, and not taking from tapu places.

These practices were designed to ensure that the food was 'safe' for the consumer and that it would increase mauri and mana. The following chapter will show that most of these practices are no longer followed by Ngāi Tahu and Māori food producers. However, historically they would have constituted important cultural attributes of the food itself – and there is a possibility they could again if adapted and adjusted for contemporary contexts. There are likely to be markets interested in foods produced according to such spiritual protocols if communicated in the right way. Similarity may be found with kosher and halal foods that are produced according to religious protocols.

The analysis also revealed a number of other possible cultural attributes that relate to a range of practices. Generally speaking, these practices concerned the seasonal and nomadic nature of food gathering, the use of food for special occasions and social bonding, and the separation of food in types based on their importance and function. There is potential for some, or all, of these traditional cultural credence attributes to appeal to consumers in different markets. These characteristics of the food function and procurement processes are outlined in Table 2.1 below:

**Table 3.1: Traditional Credence Attributes**

| Credence Attribute | Description |
|---|---|
| Food has been produced self-sufficiently | As hunter-gatherers with a strong connection to the land, Ngāi Tahu could connect with hunters, anglers and gardeners who also share this passion for self-sufficiency. |
| The food is seasonal | Drawing on the cultural trait of seasonal movement, food produced by Ngāi Tahu could draw attention to this tradition to communicate the freshness and freedom to consumers of their products. |
| Foods for a special occasion /Kinaki | In terms of hākari food was central to important occasions such as weddings, tangi (funerals), and tribal exchanges. Ngāi Tahu specialty foods could draw upon this tradition to attract customers willing to purchase products for their own special occasions. |
| Kaihaukai – food for building social connections and relationships | Kaihaukai – whanaungatanga – tapu/sanctity of relationships mediated by food whānau-to-whānau, community-to-community relationships and exchange. |

# Chapter 4
# Ngāi Tahu Kai, Contact, and Colonisation

From the moment of first contact between Māori and Europeans, food was exchanged. Food was a fundamental means of engaging between the two different peoples. European explorers set up 'model gardens' to demonstrate how to grow the new species of plants (Leach 2008b). Cook attempted to leave breeding pairs of various animals during his trips and in 1769 he provided potatoes – the "introduction of this tuber along with the many other introduced foods brought about a significant change in the traditional economy of New Zealand" (Beaton 2007, p. 49). The change was not just economic; indeed, Belich (1996, cited in Beaton 2007, p. 52) stated the Musket Wars would be more accurately referred to as the Potato Wars.

Māori were quick adopters of many European foodstuffs, and various technologies required to produce, prepare, and consume them (Reid and Rout 2016b). The introduction of these new foods, along with the associated pressures of colonisation, saw Māori society change dramatically. Generally speaking, Māori adapted rapidly. The 'golden era' of the Māori economy in the eighteen fifties was driven by a massive shift to European agrarian crops and techniques. This golden era was brought to an end by the New Zealand Wars, as the colonists took the land and became 'self-sufficient', and Māori 'withdrew' back to their kainga (villages) for nearly a century (Reid *et al*. 2017). Nevertheless, "[i]n the early 19th century the successful melding of hunter-gatherer subsistence and agrarian methods reflected the ability of Māori to adapt and innovate in a new environment" (Kira 2017, p. 71). Of course, the transition was far from smooth; there were, and remain, numerous issues. Leach (2008b) notes that while they were numerically dominant Māori kai and cuisine benefited from the new foods and technologies with little to no negative impact, but when the settlers began to outnumber Māori this changed.

By the early decades of the nineteenth century, alongside the most northern of the North Island tribes, Ngāi Tahu – through the ongoing contacts with the whalers and sealers who had flocked to the bountiful shores of the South Island – were at the 'sharp end' of interaction and exchange with Europeans. Records show that Ngāi Tahu in Foveaux Strait at the bottom of the South Island were growing potatoes to trade with whalers and sealers as early as 1809, with Stewart reporting he "saw many acres growing at Bluff" (Simmons 1969, p. 13). Southern Ngāi Tahu had "built up a thriving industry supplying whaling ships with provisions such as pigs, potatoes and wheat" (Te Rūnanga o Ngāi Tahu N.D.a).

Ngāi Tahu sold most of their land in the years after the Treaty was signed, in "the 20 years from 1844, Ngāi Tahu signed formal land sale contracts with the Crown for some 34.5 million acres, approximately 80 per cent of the South Island, Te Waipounamu" (Te Rūnanga o Ngāi Tahu N.D.a). The "Crown failed to honour its part of those contracts when it did not allocate one-tenth of the land to the iwi, as agreed. It also refused to pay a fair price for the land… There were also disputes over boundaries, and the Crown's failure to establish schools and hospitals, as promised. In addition, the tribe lost its access to its mahinga kai, or food gathering resources" (Te Rūnanga o Ngāi Tahu N.D.a). While Northern Māori experienced an economic boom in the eighteen fifties as they converted to European agricultural methods, Ngāi Tahu were"[r]obbed of the opportunity to participate in the land-based economy alongside the settlers", becoming "an impoverished and virtually landless tribe" (Te Rūnanga o Ngāi Tahu N.D.a).

## 4.1 Impact of contact and colonisation on the Ngāi Tahu food beliefs, values, and behaviours

This section maps the impacts of colonisation on Ngāi Tahu beliefs, values and behaviours regarding food production, preparation and consumption. This is illustrated with examples from interviews with Ngāi Tahu members. These interviews cover numerous generations, with the earliest born in the 1930s and the latest in the 1990s, allowing for both continuities and changes to be determined. However, before examining the specific impacts on the key beliefs, values and behaviours regarding food, some more general determinations regarding colonisation need to be made.

The physical, more tangible transformations that occur during settler colonisation are easier to see and understand – colonists arrive, the land changes as forests are burnt and cut down, new settlements with different layouts and architecture appear and the new people implement their own political, legal and economic institutions, replacing the indigenous institutions. However, these physical and structural changes are complemented by, and drive, psycho-social changes for indigenous people (Reid *et al*. 2017). Settler colonisation not only attacks the physical and institutional realities of indigenous life but also the indigenous worldview, culture and identity, both incidentally as part of its desire to control the land but also intentionally as a means of securing that domination (Reid *et al*. 2017). Colonisation saw the Ngāi Tahu worldview challenged, with the foundations of belief and the emergent values and behaviours attacked, denigrated, and diluted. As Tau (2001, p. 131) writes:

> [D]uring the era of colonization, Ngāi Tahu learnt that their traditional knowledge system consisted of 'false knowledge', beliefs rather than true or certain knowledge, and that these beliefs imploded because of their innate weaknesses. With the collapse of whakapapa, which was the fabric that held the traditional world view together, Māori were caught in a twilight of the gods.

Previously sacrosanct and essential concepts such as tapu, mauri, and mana were eroded by colonisation (Hargreaves 1963, Reid *et al*. 2017; Tau 2001). On tapu, Hargreaves (1963, p. 113) notes that many of the previous restrictions relating to food production, preparation and consumption were starting to break down by the 1830s even by tribes "who most resolutely persist in their refusal to be taught Christianity". Hargreaves goes on to explain that the previously strict tikanga and kawa relating to kumara harvests were often no longer followed and "where eating in houses, previously unheard of among the Maoris, was quite common by 1826" (ibid). As well as having far-reaching pyscho-social consequences, these changes also had direct impacts on food. Tau (2001, 131) explains:

> Seasonal rituals of harvest, welcoming Matariki (the Pleiades), the hinapōuri for the annual whakaheke (migration) of eels — all of which were part of the mythic world view and ritualized by the whare pūrākau — had been obliterated by the decade of musket warfare.

The decline of what had previously been an all-pervasive framework shows the powerful impact of contact and colonisation on Māori psycho-social reality, though there was and remains resilience as well.

Both reinforcing this impact yet also showing this resilience, Petrie (2013, 186) notes:

> Circumstances meant that tikanga Māori was gradually applied less and Pākehā ways more often, although there was overlap for some time. The same process can be seen in connection with flourmills, where customary protocols were applied as much as feasible.

It is important to temper the position that colonisation brought about a collapse of Māori beliefs, values, and behaviours. Many aspects of the Māori and Ngāi Tahu worldview remain and some have been revived, reinvigorated, and even reframed in the modern era. Schaniel (2001, p. 138) argues that "Maori economic and social processes were not debilitated or destroyed by European technology… Maori

adopted, adapted, and then accepted European technology". This is true with specific regard to food and culinary traditions. As Beaton (2007, p. 132) argues:

> Not only were features of a European cuisine adopted, but they were often adapted to fit into a Māori worldview; thus indicating a conscious decision. Māori defined what they would appropriate from Pākehā and what they would drop from their own cuisines and this has led to a distinct Māori culinary tradition today, which is based firmly on cultural values and rules. The fact that the origin of these values and norms is often unknown, illustrates their antiquity. The rules are adhered to because - that is the way the old people did it. These rules act as guidelines, to ensure that any modifications to the cuisine are in line with a Māori worldview. Furthermore, the rules have been shown to be flexible, enabling change to occur while still retaining their inherent qualities.

The experience for Ngāi Tahu varies both across time and across people. It can be best understood as two spectrums. One spectrum relates to the degree to which traditional knowledge in relation to food has been retained, whilst the other spectrum relates to how flexible the application of this knowledge is, whether traditional BVBs are only applied to traditional foods, methods etc. or to any food, method etc. While these spectrums might seem to be fairly clear, they are both quite ambiguous.

Regarding the first spectrum, the confusion comes from what can be considered 'traditional knowledge'. The process of settler colonisation is one that often seeks to assimilate indigenous cultures into the settler culture and this not only can cause both changes in culture and gaps in knowledge transmission but also can create what are often termed hybrid cultures. This means that some indigenous beliefs, values and behaviours considered 'traditional' are not actually traditional. They are often much newer creations that are either a mixture of indigenous and settler BVBs or are exaggerated or recreated forms of traditional BVBs often formed as a reaction to colonisation's attack on indigenous culture (Reid *et al*. 2017).

Cultures are, even when not under the pressures of colonisation, dynamic and fluid. Settler colonisation places indigenous cultures under extreme pressure and there are many emergent forms. While it may seem like people who have 'lost' their traditional knowledge would be unlikely to apply this lost knowledge, it is more complex. Some have retained the knowledge, or aspects of it, but are unaware of its origin, often viewing it as 'common sense' or 'just something we do' (Reid *et al*. 2017). In this way, the traditional knowledge is retained to a degree without the explicit awareness of its origins and in some cases without an understanding of the wider framework on which particular BVBs are based.

The second spectrum is closely related to the first and inherits its complexity from it. The flexibility of traditional knowledge application can depend on how much of that knowledge, and the underpinning framework, a person has and it can depend on whether that knowledge is 'traditional' or hybrid or an exaggerated reaction. There is a tendency for colonised cultures to undergo an 'entrenchment', which sees the indigenous culture protected from external settler influences. This sees the fluidity of the culture decrease. While in some cases this does involve the retention of actual traditional pre-contact BVBs, because it also occurs alongside the loss of cultural transmission it can also see either exaggerated forms or new hybrid forms occurring.

In practical terms, this means that while some are flexible in how they apply fundamental BVBs others can be far more rigid. A key question, for example, concerns whether this is applied to traditional food types and situations only, or to modern food types and related production, preparation and consumption (Reid *et al*. 2017). While some may retain their cultural knowledge, they may apply it only to traditional foods and situations, such as planting, harvesting and consuming kumara at a marae. Others may retain their knowledge and apply it to all food types, such as saying a karakia before eating takeaways.

This last example does bring some of the issues in the first spectrum to light as the modern karakia used by many are not traditional but rather hybrid forms that have been influenced by the Christian grace.

Māori did not bless food but rather acknowledged the atua, often offering some food to the atua from whose domain it was taken (Taiuru 2020). Thus, even some as simple as a karakia before a meal can take on a variety of different forms on this spectrum and, of particular importance, on the traditional knowledge spectrum.

The following three sections explore Ngāi Tahu beliefs, values and behaviours regarding production first, followed by preparation and finally consumption in the post-contact period.

## 4.2 Post-contact Ngāi Tahu food and food producing, hunting, and gathering

Contact and colonisation brought new species, technologies, and techniques. As noted, the potato was probably the most important new species – sometimes even preceding direct contact with Europeans – but wheat, cattle, sheep, poultry and, in particular, pigs were all important even in the pre-Treaty years (Hargreaves 1963). Despite Ngāi Tahu's massive loss of land and the Crown's failure to fulfil the various contractual agreements, some Ngāi Tahu settlements were still determined to adopt European agricultural methods in the mid-nineteenth century (Tau and Rout 2018).

### *Mahinga kai*

For Ngāi Tahu, one of the most pressing issues that emerged not long after the land sales was that the promised access to traditional mahinga kai sites was far more restricted than had been outlined in the various Deeds. Ngāi Tahu made their first 'formal' protest regarding Treaty grievances in 1849 (Tau *et al*. 1991). As O'Regan (quoted in Waitangi Tribunal 1991, p. 15) has explained:

> [T]he Ngāi Tahu claim involving mahinga kai is one of the most emotionally charged elements of the tribe's grievances and further explains how commercial exploitation and use of natural resources both for tribal consumption and trade was basic to the Māori economy and to the whole social fabric of tribal and intertribal life.

The centrality of mahinga kai to Ngāi Tahu is apparent in the nine grievances, or 'nine tall trees', that the tribe took to the Waitangi Tribunal – "eight major land purchases representing the first eight trees, and the ninth represented by mahinga kai" (Te Rūnanga o Ngāi Tahu N.D.b). This loss was a fundamental grievance, one that ranked with – and was intrinsically connected with – the loss of whenua (land) itself. In the decades that followed, not only did Ngāi Tahu face increasing problems accessing their mahinga kai sites (because they were no longer allowed access), but also those sites either disappeared wholesale under the onslaught of settler colonisation as swamps were drained and land terraformed or became so polluted by agriculture and industry they were no longer a viable source of food (Tau *et al*. 1991).

There has also been increasing legislation restricting the harvesting of many wild food species, often driven by conservation measures – though some of these, such as the law protecting kereru (wood pigeon) were also intended to force Māori into the Pākehā food system (King *et al*. undated; Reid *et al*. 2017). Kai, particularly mahinga kai, is closely connected to rangatiratanga. As one interviewee told us: "*Elements of sovereignty sit with kai that make mahika kai ours*".[7] He went on to explain that for a food to be considered "Maori" it becomes a matter of sovereignty. When asked, what makes a food "Maori" his response was that in the first instance, it must be considered ours in that "*there is an identity and connectivity to the Maori community*" and therefore, "*there are elements of sovereignty that sit with in that*".[8]

[7] Interviewee 1.
[8] Interviewee 1.

This section focuses on terrestrial and marine mahinga kai, while the following section on fishing will look at the commercial fisheries, with the acknowledgement that these are not always clearcut lines. However, there is a critical distinction between terrestrial and (most) marine mahinga kai. While Ngāi Tahu quickly lost access to much of their land based mahinga kai, it was different for kaimoana. In the early decades of the nineteenth century, new technology in the form of the whaleboat helped Ngāi Tahu harvest marine mahinga kai. These boats were far more seaworthy than Ngāi Tahu craft and this saw an "increase in the exploitation of certain naturally occurring coastal resources" (Bathgate 1969, p. 365). For example, the whaleboat helped open many more of the Muttonbird Islands to harvesting, saw Ngāi Tahu increase their seal harvest and allowed numerous other coastal species to be more consistently and constantly targeted.

As many of the witnesses at the Waitangi Tribunal on Ngāi Tahu seafood (1992) explained, many of them relied on marine mahinga kai as a vital staple in their diets up until the second half of the twentieth century. As one explained, when his father was unemployed he would "fish . . . every day when possible to feed us as there was no unemployment benefit those days. He used to catch red cod mostly, blue cod was also caught, also grey shark and dogfish" (Waitangi Tribunal 1992, p. 12). Another simply recalled that as a child his whānau were able to get enough eels to last his family the winter in three to four hours. A third explained that at the start of the twentieth century, it was easy to gather enough kaimoana to feed visitors for a hui, "[w]e were able to feed them, proud, because we had plenty of eels at Washdyke. It was no trouble to get sacks of eels, watercress and mussels again and again from this region to provide for our manuhiri" (ibid). Marine mahinga kai was of fundamental importance to Ngāi Tahu because, as another witness explained, "the climate was much harsher for growing things" (idem, p. 13).

While many Ngāi Tahu struggled to access traditional terrestrial mahinga kai sites, and many had moved into the towns and cities away from these sites, a number of ahikā (literally those who keep the home fires burning) maintained their connections to these sites. One of the most obvious examples of this is the muttonbirders, who have in many cases continued to harvest the tītī throughout the contact and colonisation (Rout *et al*. 2019). Many of these birders were in a unique situation, where the islands they had a right to bird on had been specifically protected in the sales deed (Rout *et al*. 2019). While mahinga kai access rights had been essentially ignored across the rest of the Ngāi Tahu takiwā, these muttonbirders had their right enshrined in the new settler law. They retain mana and rangatiratanga over the kai. Muttonbirding has both changed dramatically whilst retaining many of the core BVBs. While most birders now arrive by helicopter, many still operate with the traditional beliefs, values and, depending on the technology involved, behaviours (Rout *et al*. 2019).

The ethic of kaitiakitanga remains strong amongst many muttonbirders, as does the interconnected nature of tapu, kaitiakitanga and the intricate nature of being related to one's food source. Take one participant – born in 1942 – who had been muttonbirding since she was a small child, who explained that "*kaitiaki is to take care of your stewardship if you like while you are living. Take care of the land, take care of the tītī and be as least invasive as possible. From a very early age, I was taught all those things*."[9] She went on to explain that:

> *I've had a couple of friends say to me, 'I don't understand how you can say that you love the mutton bird. You go down there and you kill their babies'. I said, 'Well, it probably is difficult for you to understand but I love and respect mutton birds, the titi'. They're a wonderful bird… I have said that before. They mate for life. You'll get the odd one that'll go over the fence and have a little dabble over there. May well come back to his wife the following year. They go to the same hole on the same island. They don't breed until their five or six. They lay one egg,*

[9] Interviewee 2.

> *just about a third of their body weight. They're sacred, they're tapu. How can you kill the young ones? I said, "With the greatest respect and the privilege of that happening*.[10]

The same participant explained that "*by the time January comes and you're gazing sideways and you're here but you're not because you're wondering what's happening down there. September, you're thinking, "well it'll be just about coming back now. How many's in the water? I wonder how the kai is for them, the krill and the shrimp and whatever it is that they eat*."[11]

The kaitiaki ethic still guides muttonbird harvesting. Another participant – born in 1962 – explained "*the lore of the place around keeping the holes, using the adze to get the bird out, then you're plugging up those holes again afterwards. Just maintaining equilibrium in the environment that you're working in and you'll be okay. That's always been top priority*."[12] Another – born in 1934 – also noted how tikanga and kawa were enforced during his childhood, explaining how he and his whānau collected "*a lot of mussels, we shelled them at the beach and that was above high tide too and buried the shells in the sand; the shells had to stay behind. That was one of Mum's [tikanga].*"[13] This same participant noted how everyone in his village "*every family… had their own pāua patch*".[14]

Not all birders have retained their traditional knowledge. Another participant explained when asked about if they had been to the Muttonbird Islands, "*no, I would love to go there one day. I know we've got rights over there. I don't understand all that kind of stuff but I know we are entitled to*."[15] Another when asked about the same question said, "*I wouldn't even know where the Muttonbird Islands were*".[16]

While other types of mahinga kai were much more difficult for Ngāi Tahu to hunt and gather in the twentieth century many still did. Fishing and gathering of kaimoana was a common means of gathering mahinga kai as until the nineteen eighties this was essentially a common right (Waitangi Tribunal 1991). Land and river mahinga kai were far more difficult to access as more and more was converted into farms, fenced off, drained and blocked (idem). In their catalogue of the many different important terrestrial mahinga kai sites, Tau *et al*. (1991) note how almost all are polluted, gone and/or unable to be accessed. As Ngāi Tahu state in their freshwater policy, most freshwater ways in their takiwā are now polluted to some degree, explaining that "[s]adly, the mauri of many waterbodies have been seriously eroded by water use and development" (TRoNT 2015, p. 13). This has been a common experience across Māori, as Tipa and Welch (2006, p. 375) explain:

> [F]ollowing European settlement in New Zealand, traditional gathering of mahinga kai (the cultural practice of gathering food and other materials) by Maori was soon restricted and eventually virtually extinguished. The progressive degradation of natural resources and the lack of effective participation by indigenous communities in their management have been sources of grievance for Maori in New Zealand.

Kaimoana has become increasingly difficult to source, with many at the Waitangi Tribunal noting that the introduction of the quota (discussed in the fishing section below) was the 'final straw'. As one witness told the Tribunal (1992, p. 22):

> It has always been customary to provide the best kai available in the area for our manuhiri. Up until five years ago [when the quota came in] we managed to [do] this quite well with the help and

[10] Interviewee 2.
[11] Interviewee 2.
[12] Interviewee 3.
[13] Interviewee 4.
[14] Interviewee 4.
[15] Interviewee 5.
[16] Interviewee 6.

> generosity of our fishermen. However they are no longer able to provide the kai-moana anymore because of the quota system, and regulations. We must now purchase almost all the Kai-moana we require to feed our manuhiri. The oystermen traditionally provided families and the marae with oysters, not any more. The merchants and the industry stopped the practice by limiting the amount of take-home feeds. The resource now belongs to the industry, in our eyes.

There were still those who foraged where they could. As Morgan (2006, p. 53) states, "Ngāi Tahu have held fast to mahinga kai culture in the midst of historical upheaval as without it, Ngāi Tahu would lose a key component of their cultural identity". In his submission to the Waitangi Tribunal (1991, p. 856) Riki Tau explained how he, and his father before him, "[i]n a modified way we have both followed a seasonal cycle around the countryside just as our ancestors did before the Pākehā arrived". He went on to explain that (Waitangi Tribunal 1991, p. 857):

> In recent years the Mahinga Kai has got scarce. Rivers are now managed and their water is extracted for irrigation and used to carry effluent to the sea. The creeks, drains and lagoons have largely dried up, and where they still have water, the fish and eels have largely gone. There is little point in launching a small boat to go fishing off the coast, those fish are gone too. When I go to the Tītī Islands I can no longer rely on Pāua for food, nearly all the beds have been fished out by large boats in the last ten years. The Mahinga Kai which was our principal source of food is in the process of disappearing and there does not seem to be anything we can do about it.

The connection between mahinga kai and identity remains strong for some. In an interview with Te Runanga o Ngāi Tahu (TRoNT), one individual explained, "I believe mahinga kai is one of the things that binds you are and where you come from" (Te Rūnanga o Ngāi Tahu N.D.c).

One interviewee provided a contemporary understanding of mahinga kai, steeped in the traditional view and based on the importance of rangatiratanga. He explained, "*behind mahika kai is a whole industry*".[17] Rather than mahinga kai being an isolated item – a product or a process – this interviewee reflected on how it is an entire chain of production from which value is created and added at each link in that chain. From travelling to the source of the resource through to the tools used in its extraction. From the transport of both the people and the product back to the storage centre to the work that went into preparing and priming it for trading and markets. Therefore, it is both the processes and products – the entire chain that has and holds value – that go into making something 'mahinga kai'. That chain "*is all sovereignty*", according to this interviewee.[18]

Closely related, another participant, who is very active in mahinga kai, also noted that they have sovereignty over mahinga kai as well as expressing that they have a control over the entire 'supply chain': "*because I have grown or picked it with my own two hands, I am certain of the security and sovereignty of that food*".[19] This participant went on to explain:

> *[I]t is the mātauranga that is associated with it [the production and preparation] that makes it mahinga kai. It is about what he has learned from his mum and dad – of how to grow or gather something or to take the guesswork out of it because at the end of the day that is all part and parcel of* mahinga kai*, the assessment that allows you to bring the best into your home for your whānau*".[20]

As well as outlining an interesting and contemporary conception of traditional *mahinga kai*, this interviewee also reinforces the importance of mana and rangatiratanga. This was also expressed by a number of witnesses at the Waitangi Tribunal (1991, p. 866). For example, after identifying 31 locations

[17] Interviewee 1.
[18] Interviewee 1.
[19] Interviewee 7.
[20] Interviewee 7.

where he gathered mahinga kai one witness "spoke of the importance of mana which resulted from the ability to provide sea food on a special occasion".

Several interviewees explained how hunting and gathering for mahinga kai was common in their whānau when they were growing up. This was particularly true for those who were born before the 1960s. One participant – born in 1939 – talked about how when she was young, her and her whānau "*used to go to the beach and get fish" while her "brothers of course were all possum hunters and pig hunters and every other sort of hunter that you could think of. Mum didn't have time to do much except look after us and cook*."[21]

The self-sufficiency of hunting your own kai was expressed by another interviewee – born in 1944 – who told us that when she was young her whānau "*caught our own food, predominantly… like we went pig hunting and we did eat pigeons and rabbits. There weren't that many rabbits. But we had predominantly wild pork, kaimoana in the way of meat and the odd pigeon, rabbits, that was about it for meat…we very seldom brought meat*."[22] The ability for mahinga kai to provide all the necessary meat, and act as a means of supporting whole communities, was expressed by another – born in 1941 – who said that when he was young:

> *We lived very well really. Like we lived off the land, fishing and all that sort of thing and pig hunting and pigeons. Kereru was a big part of our [diet]… we'd go out on a fishing expedition sort of thing and we'd gather up all the whānau and we'd go to [the beach] and go netting and we'd gather some pāuas and mussels and all that sort of thing in a day… we did quite a lot of whitebaiting; floundering and we used to fish off the rocks and get trumpeter and blue cod and all that sort of thing. And flounder, 'cause we used to go spearing for flounders or netting for flounder. Going netting was a big day out. And we'd get pāua, mussel… [and do you still gather kaimoana?] Yes, yes, yes we do very frequently. And pipi and things like that. And my daughter goes out now and she does a bit of diving and things like that. And regularly I mean I'd say once a month we'd go back out there and get just a feed… [my daughter] who goes down and she will bring it back and give it to the whānau, like brothers and sisters, my brother and sister and things like that. 'Cause they're getting a bit older so not to be able to do it. And she does all that… And we used to do quite a bit of pig hunting. So wild pork was on the menu quite frequently. And also up in the bush there we used to go and hunt some wild cows from time to time, wild cattle which were way in the back… And then we had to carry them out of course. That was why there was so many went in 'cause we had to carry it all out and things like that yeah. But we didn't have any refrigerators or anything like that so we used to feed all the locals… And I remember in the duck shooting season the local neighbours would come round in sort of an old truck and on the back there would be ducks and swans and geese and all that sort of thing. And you just help yourself in what did you want off there that you could eat and then move on to the next person sort of thing.*[23]

The concept of mahinga kai is flexible enough in most cases to include exotic species and modern hunting technology, though while this is true for most individuals at the iwi level native "mahinga kai" species and, to a lesser extent, traditional methods are favoured (ECan N.D.). This flexibility was expressed by another participant, who explained:

> *I am a strong advocate for considering non-native species as mahinga kai also…. I get a lot of grief for it too. When I go to my lake where my ancestors went to catch fish or hunt birds it just so happens that due to the arrival of Pākehā and the non-native species that came with them some of those species have come to live at that lake so I will catch and eat that trout. The customary right to catch fish is still there and it does not matter what kind of fish is caught. It is about the place and the right to take food from there. Just so happens that the non-native species are now more abundant that the native*

[21] Interviewee 8.
[22] Interviewee 9.
[23] Interviewee 8.

> *species. So be it. Deer and pigs he said can also be considered mahinga kai because we value them. Moeraki tradition of the boulders being just kumara and taro changed to include potatoes and pumpkin after the arrival of Pākehā because Māori saw value in them. This is an example of how Māori can adapt.*[24]

Linking it to the concept of rangatiratanga/sovereignty, another told us, when asked if resources had to be exclusively native to New Zealand, that they did not have to be and that the sharing of resources could be anything, "*that is the nature of sovereignty – is having the authority and self-determination over our selection*".[25] He also made the connection to rangatiratanga: "*You could do anything with that land or grow anything on that land and it could be considered mahika kai because it is on your land and comes under your mana whenua*."[26]

Another participant explained to us:

> *I don't get clouded and caught up in the details because sure the perfect mahinga kai koha would be a mahinga kai taonga species that had been gathered using the traditional methods of past/previous generations such as my poua taught me for gathering and preparing said kai to how my tāua told me – that would be the ultimate but the accumulation of knowledge - the act of going out and getting something - bringing it back and the intent when giving it to someone that is what makes something a mahinga kai regardless of whether it is an endemic or introduced species. It becomes about the process - of trial and error and the ongoing learning outcomes of that.*[27]

Similarly, another explained:

> *Considering all that has been lost - species wise – mahika kai is not just a food it is all the resources and it is way of life. It is not just a metaphorical box that we can put a couple of things in, it is a way of living and how we express our tikanga. We have lost so many of our traditional species that there is now a part of us that has to utilize what we have albeit introduced and invasive species. Looking at the bigger picture – non-native species are still a part of our natural world – and it's just that they have come to be on our island now. Looking at our ancestors like Ranginui, Tangaroa and Papatūānuku, they are the creators of all life and that still holds tight. Now that they are on our island we have mana whenua over them. As a people Māori were very advanced – innovative – and always looking at new things and doing things better and if we could find ourselves a new resource we would utilise it.*[28]

One interviewee – born in 1952 – explained how at her father's workplace there was a strong sense of manaaki and an ongoing form of hākari that saw the various foods gathered through mahinga kai exchanged, "*the Māori in [my father's] workplace would deliver… I'm talking buckets of kaimoana. Buckets*".[29] Another – born in 1959 – explained how when he was young, he and his friends fed themselves when they were out playing through mahinga kai, explaining:

> *We were never home. Someone said to me ages ago, 'So when did you go home? When we were tired, we were never hungry, there was that saying we were taught eh, 'When the tides out the table is set'… along that sandy stretch down [the beach] where the straight is and the big sea, the waves would come and they would just push the kōura [crayfish] up the beach. The wave would go down and you'd run down and grab the kōura. Those days they would never happen today.*[30]

[24] Interviewee 10.
[25] Interviewee 1.
[26] Interviewee 1.
[27] Interviewee 7.
[28] Interviewee 11.
[29] Interviewee 12.
[30] Interviewee 13.

Many interviewees noted how mahinga kai had declined since they were young. As well as recognising the decline in crayfish, this participant also explained how he "*lived on tuna [eels]*" when he was young, how in the local river there "*used to be beautiful silver bellied eels and full*" but that the "*river changed when they done that new bridge… That's when the water just disappeared; broke the run of it, the flow of it*."[31]

While access to mahinga kai sites has become problematic, in some cases the old relationships between Ngāi Tahu and landowners remains, as one participant – born in 1964 – explained:

> I suppose there is one thing that our parents left behind for us and my grandparents was that the relationships they built with the local people, be it the farmers, because that's mainly what's there now; there's a farming industry. Our name is sort of pretty much as old as theirs. So those relationships and when I first moved back and introduced myself they'd ask me who was my grandfather and it made things a lot easier for me to access those sites because they remember my grandfather, 'cause these guys are quite old. They just said, 'You can just go ahead.[32]

However, a number who were born in the 1960s and after were also raised hunting and gathering. This was often a supplement to purchased food, as well as a leisure activity. As one participant – born in 1963 – explained, her father's family "*would work on farms in whatever district, they were shearers, but they were pretty much doing mahinga kai all the time; fishing, whitebaiting, muttonbirding… dad and them they lived off the freezing works so they could go eeling, mutton birding, fishing… [the seasonal nature of freezing work] fitted the lifestyle that they already had; Ngāi Tahu people have. They travel all around to go and get their muttonbirds*".[33] The seasonality of freezing work was, as this participant noted, a key component in helping Ngāi Tahu members maintain the old ways, particularly up until about the 1960s. Another – born in 1964 – explained how she had been brought up hunting and gathering:

> *I went in the bush from an early age with my brothers pig-hunting and chasing pigs… Dad fished so there was a lot of fish. I remember opening fridges and there was always crayfish… that's how we lived; that's how we sustained as a family, 'cause we had nothing, we were really poor. We were poor in monetary sense but rich really in the other.*[34]

She now teaches children those skills, saying that:

> *The moon and the tides and you know kids don't even realise the connection with that stuff and the kai moana and when to take it when it's fat on the full moon; and the mahinga kai and all those things and how we need to look after that stuff. I guess we've lost a lot of things through land access; you know farmers won't let you over. We as a family have lost a lot of those rights that we probably took for granted growing up.*[35]

She is also "*on the mahinga kai committee, so I kind of deal with all those type of things that come into the marae*".[36] Another – born in 1984 – explained how he gathered kaimoana for his whānau, stating that he was "*very aware of giving my grandparents a feed; like I don't eat mussels but I know nana loves them so I get her a feed of mussels if I'm in the water and I see them. Give her 15 mussels or enough for a feed*."[37]

[31] Interviewee 13.
[32] Interviewee 14.
[33] Interviewee 15.
[34] Interviewee 16.
[35] Interviewee 16.
[36] Interviewee 16.
[37] Interivewee 17.

The connection to the whenua is often created and maintained through mahinga kai sites. As one participant – born in 1964 – explained, when he would go back to his ancestral village to visit, saying "*I remember when I was growing up was the different kai sites on the peninsula that different uncles took me to. They just pointed and said there it is go and get it*."[38] Another – born in 1962 – noted that the food they gathered is now highly desirable, we "*lived off lovely food, kai moana. Pork; watercress; crawlies, all these foods that they call luxuries now is what we lived on*".[39]

While many still hunted and gathered, the reasons for this had changed, as one interviewee – born in 1977 – explained:

> *Dad and them didn't have cars; so that was their source of kai. They shot their pigs and their deer. That was what they had to do, whereas for us it was a leisurely thing; it was a fun thing for us to go in with dad, more so than a want; and the fact that there was a lot of them there, dad and them, just when they were younger. When we were younger there was a lot more of that, but as it slowly, has changed I guess; but yeah, definitely it was all taught by their parents*.[40]

Much of the tikanga and kawa around mahinga kai was retained by whānau and the importance of kaitiakitanga and manaakitanga remain. One interviewee – born in 1990 – explained:

> *Whenever we hunted or were gathering things we always only took enough to feed yourself, you didn't take a whole lot so that you could take it home and hoard it in your freezer or anything like that. It was just enough to have a feed and maybe to give a little bit to the rest of your whānau.*[41]

Another interviewee – born in 1980 – explained, when asked about the whenua, how "*it's a collective responsibility for the mauri, for the wellbeing of the whole place*".[42] One participant – born in 1963 – explained how her whānau were still guided by tikanga and kawa, and that her whānau's religious beliefs meant:

> … we didn't eat any of that kai [seafood] but it didn't stop dad from doing the mahinga kai. He probably did eat it sneakily, 'cause that's what they were brought up on. We were around it. Those places are tapu because you are only allowed to eel there at certain times, in certain places. You're not allowed to wander around the beach.[43]

The clash between traditional behaviours and settler religious values is obvious in this statement.

The importance of gathering for whānau was clear in this participant's – born in 1962 – statement "*I'm the diver in the family. I am the official diver in the family so if someone needs some crayfish - doesn't have to be for any special occasion*."[44] The need to maintain the ecosystem for mahinga kai was also present into the nineteen sixties and nineteen seventies, as one participant – born in 1965 – told us:

> *My father would seed puha everywhere… he'd go out there and fling it all over the place… It's what he liked and he knew that this is the right soil to put it in. It would grow quickly here. It would grow quickly here and this is… yeah, and I have access to it. It's not on some farmer's property that I have to go and ask. Same with watercress [and cabbage trees].*[45]

[38] Interviewee 14.
[39] Interviewee 18.
[40] Interviewee 19.
[41] Interviewee 20.
[42] Interviewee 21.
[43] Interviewee 15.
[44] Interviewee 22.
[45] Interviewee 23.

The need to return the first of the pāua to the atua was expressed by another – born in 1960 – who said "*what to do with the first one – put the first one back and take the others and go away from the rocks*".[46] Another – born in 1981 – explained about how he practiced manaaki and showed us how that connected back to his grandmother:

> *I learned to pig hunt on horseback when I was 11; I think I was 11. I carried my first pig when I was 12. Everything was on horseback; there was no four wheelers or anything like that. Our family had horses… Nana's brother, he lives right next door to our marae… and he like owned most of the land around our marae and that's where dad got brought up. I used to ask to go out there [into the bush]… that's where I learnt how to hunt for pigs and deer… [it was about kai for the whānau]… yeah… they taught me first and foremost family eh. You need whānau; you need your family around you. And even though every year our family grows we still like to be tight. You know we try, we try. And so all of our kids and all of my brothers and that and my sister's kids are close.*[47]

He explained that his grandmother:

> *… used to hunt, go out and hunt to feed the whānau and that sort of thing like that. She used to take care of the kids, five kids and back then it was like primitive, primitive as. There was no power or anything like that. She was like just old school, set in her ways and still clever. I used to like talking to her about life things and what it was like for her growing up. How they used to catch pigs.*[48]

Tikanga and kawa around muttonbirding remains particularly strong, one participant – born in 1974 talked about how her father taught her:

> *Things like never taking more than you really, really needed, or never clubbing the babies or the parents or anything like that, in fact, being so careful he wouldn't let my brother-in-law go out birding on his own even though [he] had a very strong, natural affinity to things natural. He wouldn't let [my brother in law] go out on his own torching. For two seasons he had to go with [a relative] and that was so that he learnt thoroughly the shading, the very subtle shading of the parent bird. Slightly different at night and under torchlight to a young one. They look exactly the same but there's a very subtle difference in the shading and the colour and the mannerisms. You had to learn it because you couldn't kill one and you could kill the other. It was things like that, dad just wouldn't budge. He said, "No, this is how it's done and this is what you must do." And we grew up with a very strong foundation of that which we've passed onto our kids.*[49]

Mahinga kai in the contemporary era is often viewed as the predominant expression of Ngāi Tahu-ness, above and beyond te reo, which is frequently a more important marker of identity for North Island tribes (Russell 2000). As Joseph Wakefield (Te Rūnanga o Ngāi Tahu N.D.d), a Ngāi Tahu cultural advisor, explains:

> Mahinga kai defines us. It is who we are hence the reason why it is so important to pass on this knowledge to our future generations.

Not only are there growing numbers of Ngāi Tahu hunting and gathering, but Te Rūnanga o Ngāi Tahu and the eighteen Papatipu Rūnanga have also developed initiatives to encourage both the protection of these sites as well as helping encourage more people to learn the necessary skills to hunt and gather (Ngāi Tahu ki Murihiku 2008).

[46] Interviewee 24.
[47] Interviewee 25.
[48] Interviewee 25.
[49] Interviewee 26.

## 4.3 Rāhui

The tikanga of rāhui has, outside of the Muttonbird Islands, been largely absent from the New Zealand legal system until recent years. The Muttonbirding rāhui that prohibits anyone on the islands except for the 'harvesting season' between March and May was codified into legislation in 1978, making it one of the first, and few, tikanga to be enshrined in settler law (Wheen and Ruru 2011). The first legislative use of the term itself was in the Ngāti Awa Claims Settlement Act 2005. As well as the legally enshrined rāhui relating to the harvest season, many birders have their own rāhui. For example, one told us:

> *There were rāhui areas that people had and sometimes that would be because of cave ins because so many birds in one place and the ground is soft and they would just either cave in or even if you were careful walking they would cave in on each other.*

Another on-island rāhui recounted to Kitson and Moller (2008, p. 167) was that "we were always taught [that] when a bird is nesting, you never go near it. Because that mother may leave the eggs, but once that the bird is hatched, the mother instinct then takes over and it will never leave it. It'll always keep looking after that bird." There are many other informal rāhui in place throughout the Ngāi Tahu takiwā.

As well as legally mandated rāhui, Ngāi Tahu would still impose their own on areas. As one interview participant – born in 1977 told us:

> *I do vividly remember there was someone from [our bay who] had drowned out in the bay, and they put a rāhui on the kaimoana here. They just said, "No-one is to collect kaimoana for a month," but that's all they kind of did; that's all they said. There weren't really any valid reasons behind it. And I don't even think they called it a rāhui, I think it was just restrictions. A lot of tikanga stuff back in the day, as I was growing up, really didn't have any explanations; that's just how it was. And it's only been over the years that people have started to learn: this is why we do it.*[50]

### *Farming*

Across New Zealand, Māori increasingly turned to farming European agricultural species both for their own diet and, more importantly in the early years, as trade items. Potatoes and pigs were the two most common early on, with Ngāi Tahu having potato from at least 1809, as noted above, and pigs from at least 1827. Simmons (1969) even posits that it was the potato that helped drive Ngāi Tahu settlement further into the central regions of the South Island.

An interesting note on the potato and how Ngāi Tahu perceived it comes from Ngāi Tahu scholar Jim Williams (2010, p. 158), who states that "the potato… was already being grown at non-permanent sites [in the nineteenth century] and was regarded as a 'traditional' resource". This indicates that during this period of flux Ngāi Tahu were flexible in the way they understood 'traditional' foods, the potato had quickly moved from being something exotic to everyday. One interviewee explained that this was because Ngāi Tahu had rangatiratanga over these introduced foods, noting that "*we chose what that is, that is the nature of sovereignty – is having the authority and self-determination over our selection. We have sovereignty over our resources and up until 1840 all resources were sovereign unto us*."[51]

That said, while the potato was quickly viewed as traditional it did not bring with it the same restrictions as kumara, meaning that women and slaves could be involved in its planting without risk to tapu (Schaniel 2001). However, as Best (quoted in Schaniel 2001, p. 140) noted, as "soon as the potatoes are sown the fields are tapu". Conversely, "techniques of white potato cultivation employed by the Māori were also

[50] Interviewee 27.
[51] Interviewee 1.

largely transferred from sweet potato cultivation, including techniques of ground preparation, planting, and harvesting" (Schaniel 2001, p. 140). As Leach notes, while southern Ngāi Tahu did not grow kumara, as soon as they got potatoes, they grew them in the same way as kumara was grown, showing they had not forgotten the methods (Smith 2012). The ways the potato changed Māori life and the way Māori adapted what they learnt from potato cultivation are complex. No doubt this was not a linear and consistent process across the country, but both the flexibility and the importance of core BVBs can be seen in its history. Wheat took longer to become widely grown, since it required mills to grind it, but cattle and sheep were increasingly farmed by Māori throughout the first half of the nineteenth century (Hargreaves 1963). Stein (2016, p. 51) provides a summary of the first half of the nineteenth century, though it does focus more on the North Island:

> *During the first half of the nineteenth century, agriculture became a cash crop for Māori and the gardening expanded to include potatoes and other foods brought from Europe. Agriculture formed the basis of Māori commercial transactions, including selling traditional as well as introduced vegetables. Auckland was largely supplied by Māori grown vegetables in the 1840s and 50s, from farmers as far away as Thames and the Waikato traveling with canoe loads of vegetables. Food and crops that were introduced by Europeans from 1769 included some that were very successful, such as potatoes, and some which were not as popular, such as peas, rice and wheat. However, Māori eventually adopted growing wheat and traded wheat and potatoes with Australia until 1855 or 1856. Potatoes and turnips were introduced in 1814; corn was also introduced but did not become common until the 1820s. Crops such as potatoes and pumpkins were adapted by Māori as they could fit with existing garden methods and traditional food preparation, or in the case of peaches and watermelons, eaten raw. Other introduced crops, such as cabbage, were also integrated into Māori growing. Māori profited greatly from selling European food products, including pigs and the introduced fruits and vegetables mentioned above.*

Many missionaries believed that Christianity and 'civilisation' went hand in hand and taught Māori agricultural techniques in the early decades of the nineteenth century as an indirect means of conversion. During this period, Māori also began to work on European farms, though Hargreaves (1963) believes that the widespread adoption of European farming species and methods was largely driven by the economic imperatives of the 1840s and 1850s. Schaniel (2001), on the other hand, argues that Māori were far slower to adopt European agricultural techniques and that even when they did the core underpinning values were often retained. In 1860 Ngāi Tahu living on a small reserve in Port Levy purchased a flour mill in an attempt to take part in the burgeoning economy and many other Ngāi Tahu groups were focusing on agriculture in this period, though this was probably more the use of a new technique as guided by more core beliefs and values (Tau and Rout 2018).

Even though there had been a decline in Māori farming following the Land Wars, Māori still farmed in relatively high numbers. An 1886 census estimated Māori sheep stocks at around 110,000, cattle 42,000 and pigs 92,000 (Hargreaves 1960). There were also still significant wheat fields in the late nineteenth century (Hargreaves 1960). In Kaikōura, the 1886 census showed "a total of 9 acres of potatoes, maize, and other crops, 10 of sown grasses, 31 cattle and 53 pigs but no sheep. The 1896 census showed slightly less cultivation, but a big increase in stock: 3 acres of potatoes, 4 of maize, one of other crops, and 200 of sown grasses-presumably for the 1,020 sheep, 40 cattle and 2 pigs" (Pearson 1968, p. 39).

However, as the century wore on, agricultural products grown by Māori were likely increasingly for their own food supply rather than primarily as a trade good. "Māori went from being the main agricultural producers during the 1800s to practising marginal subsistence farming…They grew hardly enough for their own needs and began to rely on public works and seasonal jobs on European farms" (Stein 2016,

52). An example of a clash between European methods and tapu was noted in the late nineteenth century, when Māori farms struggled more with declining yields as they refused to use manure to fertilise the field because it would break tapu (Hargreaves 1960).

Following sales and confiscations, the remaining Māori land was often marginal and remote; furthermore, much of it was divided amongst an increasing number of owners (Reid *et al*. 2017; Stein 2016). Still, from the early twentieth century the remaining Māori land was increasingly farmed. The 1909 Māori Land Act meant that land could be formally incorporated so that it could be effectively governed. However, as Lambert (2011, p. 3) states, it was "the introduction of the Māori Land Development Schemes by Āpirana Ngata in 1929 that sparked a new and momentous stage of development" of Māori farming. Ngata secured funding for Māori landowners to develop their land into farms and oversaw the creation of agricultural colleges that taught the next generation of Māori how to farm. The scheme was "directed towards assisting selected Māori men to become productive farmers of sheep and cattle on properties with secure individual leases… By 1935-36 there were some 1388 individual farms supporting 11,023 dependants" (Sissons 2000, p. 48).

This upsurge in farming by incorporations lasted for several decades but the number of Māori involved in farming declined in the 1940s and 1950s as more Māori moved into the towns and cities, looking for work (Lambert 2011). The Ahuwhenua Trophy, an annual contest for Māori Farmer of the Year, was first held in 1932, driven by the desire to celebrate Māori who were 'modernising' through developing their land for agricultural purposes (Lambert 2011). Ahuwhenua continued for decades before it began to languish in the 1960s and 1970s, partly due to costs associated with winning – particularly the farm improvements required and the costs of hosting the judges – as well as the general sense that having an award based on race was not desirable (Lambert 2011). The last round of the first phase of the Ahuwhenua Trophy, which had failed to gain entries in the 1980s and was not often awarded, was held in 1990 (Lambert 2011). However, during the nineteen nineties the Māori cultural renaissance and the Treaty Settlements had seen both revival of Māori culture and return of land and in this spirit the Ahuwhenua Trophy was revitalised in 2003. The second phase of the Trophy had a new focus on the 'triple bottom line' which saw Māori cultural values taken as a criteria, even if somewhat implicitly, compared to the first phase, which awarded Māori farmers who most closely matched modernist Pākehā farming (Lambert 2011).

Between the 1930s and 1960s, many Ngāi Tahu had stock animals, even if it was just enough for their own subsistence though this usually involved sharing as guided by manaakitanga and whanaungatanga. One – born in 1934 – said that in his village when he was growing up:

> *[Everyone] developed a wee bit of a farm sense; they had cattle, they had sheep… Pigs mostly; everybody had pigs. So it doesn't matter if anybody was short of pig food that all got shared around too. We had bit coppers and we were always boiling up cabbages and what have you for the pigs. Most of them were in sties and some ran loose.*[52]

Another – born in 1939 – simply explained that as well as having a big garden her whānau kept "*some chooks*".[53] One interviewee – born 1944 – explained:

> *We had a cow too. Always had a cow and so we had milk and cream… And butter, homemade butter… And when the cow was out, you know when it wasn't milking we would go and buy it from a neighbour. So we had a specific amount of milk. And there was a wee billy and you had to go and get it from a neighbour.*[54]

[52] Interviewee 4.
[53] Interviewee 28.
[54] Interviewee 9.

Another participant – who was born in 1961 – said that his grandparents were farmers who "*had a big farm there all around the coast, and then the same with my grandparents in Masterton – they were living on their own papakāinga; and then they split up the whole thing*" and that "*quite a lot of other cousins farmed different farms*".[55]

Ngāi Tahu's remaining land was largely, and in some cases remains, leased out to farmers – though many Ngāi Tahu worked in the farming sector, often as shearers or freezing workers as well as farm labourers. In many cases, Māori went from clearing their former lands to working on them for the new farmers:

> *Once they had cleared all the forest that was it; there was nothing. They were big farm holdings. Our families could only get work off shearing; so they were all shearers and cow cockies, they would clear land, they helped to build the roads, they helped to build all the new structures.*[56]

Watching as Māori land was converted into farmland was painful for many, as one participant – born 1944 – told us about her father:

> *It's very hard to put together in your head when you think that because there wasn't any land to farm or anything, like enough for all of the family to farm that people had to go and fell trees, which is totally against what… You know to fell that for a living, yeah. And yeah I can remember my father saying things like he'd rather; he thinks that why he has his heart attack at 40. We'd say, "What do you think dad?" He said, "To get out of cutting down trees that I don't want to cut down but I have to do to provide food 'cause there's no other work here.*[57]

Milling and farming go against traditional Māori land uses but in the settler state they became essential to Ngāi Tahu economic survival and forced many into conflicting realities. This tension still remains, as one participant – born in the 1960s – explained, after being asked about being kaitiaki of Māori land:

> *Probably less of the kaitiaki to be honest; more of a 'let's use it somehow', but I certainly support the kaitiaki. If people want it to be sitting there then so be it, because that's important… The other part to me is saying, "We could do that as a whānau, we could put plots in there and build up an asset base, or not, do something on it, farm it." And a lot of them are being leased out to farmers for nothing.*[58]

As noted above, it also impacted mahinga kai. Another participant – born in 1934 – told us about how:

> *[The] creek that runs past the marae, that creek always had water in it, but when [the farmer] and them were up there they created that farm and all of a sudden we thought they'd blocked off that creek, the spring, and of course the water has never flowed there for damn years now.*

While many Ngāi Tahu were employed in the agriculture sector, few owned or ran their own farms. One participant – born in 1939 – said his father worked in "*the freezing works mainly. My grandfather was in there; he was in the freezing works and my father was there started off I think when he come back after the war*".[59] Another interviewee – born 1960 – told us her land block, which has 150 shareholders, is "*still in farm land and one of the locals leases it for farming. His wife is also a shareholder of the land… she's whānau*".[60] Another interviewee – born 1958 – remembered his father "*was a butcher [at the freezing works] and a shearer*" and that where he grew up there were *"[four] freezing works that were going*".[61]

[55] Interviewee 29.
[56] Interviewee 15.
[57] Interviewee 8.
[58] Interviewee 30.
[59] Interviewee 31.
[60] Interviewee 32.
[61] Interviewee 33.

Many Ngāi Tahu have been involved in the agricultural sector in more recent history. One interviewee – born in 1962 – told us about how:

> *[My father] used to shear sheep and you can't get any more physical job than shearing sheep and he'd go and do that after a hard day in the freezing works. I can remember him coming home after leaving for work at half past six in the morning, be butchering all day and come home and have a feed and you would see him putting his shearing gears in the car.*[62]

Another – born in 1977 – explained that from thirteen years old she began working in a shearing gang, and then:

> *I started travelling the world in the shearing sheds for a number of years, working also down in Tokanui in the summer and then travelling overseas to Australia and England, and Scotland, Ireland and Wales. And then I did a stint at the Freezing Works, at Alliance… then I was just looking for a job and I got offered a job in the shearing sheds, so I took that again; and there I've been for the last four years again… and the culture of the shearing; I don't know if it's just with the people that I work with, but compared to nearly 20 years ago, it's a completely different culture. It's hard to explain because I do know of other shearing gangs that still act the same as what they did 20 years ago. But the small gang that I work with at the moment; its two to three gangs, are very professional; they're really great people. I get fed all day, I get exercise and I get to work with some really intelligent people.*[63]

In the contemporary era, Ngāi Tahu have become engaged in farming through the Ngāi Tahu Holdings Corporation-owned Ngāi Tahu Farming (NTF) company, which has more than 100,000ha of farm and forestry land, producing timber, milk and meat. As Te Rūnanga o Ngāi Tahu (N.D.e) explain:

> While on the surface our farms may appear like others, there are significant differences. There is a high level of input from both cultural and technical advisors. There is also the commitment to and investment in leading farm technology. While productivity is obviously vital, a Manawhenua Working Party provides advice on the cultural, environmental and social aspects of our developments. We are also committed to and invest heavily in leading farm technology. Our advisory team includes representatives from Lincoln University, South Island Dairy Development Centre and key professionals who consult on animal and pasture performance. We have a genuine commitment to best practice farming and to the continuous improvement of environmental, social, cultural and economic outcomes for our operations.

NTF operates using the quadruple bottom line (QBL) of economic, social and environmental and cultural metrics, seeking to ensure the beliefs, values and behaviours of the traditional Ngāi Tahu worldview and culture are retained and enacted – within reason. As an employee of NTF explained, *"even though we are a commercial, corporate company our operating values of Ngāi Tahu are weaved into our daily work… Day to day we have our quadruple bottom line*."[64] She went on to discuss how the incorporation of culture meant that the Ngāi Tahu values were foundational to the other three components of the QBL.[65]

Regarding their environmental focus, as well as using the ECan required Overseer programme, they also use their soil moisture metres and a specially designed nitrogen monitoring system on their farms to provide greater monitoring (Chalmers 2014). Mana whenua (tribal members who have authority on the land where the farms are based) working parties have also made NTF follow certain rules including: banning the use of palm kernel extract, banning dead-cow holes, as well as requiring the water use is optimised (Rural News Group 2016). As a result, NTF has won a number of sustainability awards. Even

[62] Interviewee 22.
[63] Interviewee 19.
[64] Interviewee 34.
[65] Interviewee 34.

with these extra environmental measures in place, NTF has been criticised by iwi members for converting some of its farms to dairy.

NTF operates according to core values but is also focused on utilising the latest technology to achieve these, showing a high degree of flexibility in application. As the NTF employee explained:

> *What drives me in my daily mahi is the adoption of technology … so one of my main drivers is around implementing technology and research to really optimise and get the most out of technology… because I feel like technology gets adopted and you have got these early adopters and then only use 10-20 per cent of the technology capabilities available.*[66]

One interviewee noted that in the future Ngāi Tahu farmers could incorporate farming practices with native species, specifically weka and tuna (eels):

> *I love the idea of farming weka. Farming does not detract from making something mahinga kai because it comes back to that definition of mahinga kai being the working of food. The working bit – the mahi – is the understanding – the mātauranga – associated to mahinga kai to ensure it is around forever. Because of this farmers and Māori are not dissimilar in his mind. The difference is that farmers work with domesticated food and Māori work with wild food. Nothing wrong with combining them and doing a bit of both simultaneous. Domestic and wild. Ngāi Tahu farms should have had tuna on farm too considering all the water bodies that were set up (14.40) and he was disappointed when it did not happen.*[67]

### *Fishing*

In the early post-Treaty years, Māori sold fish to the settlers but by the end of the nineteenth century Māori fishing had become largely subsistence focused (Rout *et al*. 2019). However, while Ngāi Tahu increasingly lost access to their mahinga kai on land during the nineteenth century, the "communal access rights to the sea were not parcelled into private property, bought or swindled out of existence; they were simply removed without discussion, as part of the Crown's assumption of sovereignty" (De Alessi 2012, p. 397).

In the early post-Treaty years, a number of Ngāi Tahu operated in the commercial fisheries sector, with offshore fisheries well defined between the 1850s and 1870s in 'marks books' obtained for the 1992 Tribunal. The Tribunal (1992, p. 121) accepted the witness's "claim that the marks books are important to establishing that Ngāi Tahu commercial fishermen were operating regularly between the coastline and points 20 to 30 miles offshore as early as the 1860s". From the evidence it appears that Otago and Kaikōura were the dominant areas of early Ngāi Tahu commercial fishing.

Up until the nineteen eighties New Zealand's fisheries were a 'commons', meaning that in theory Ngāi Tahu had as much access potential as any other New Zealander. However, as one witness told the 1992 Waitangi Tribunal on the Sea Fisheries (pp. 117-118): "Following the marginalisation and impoverishment of so many Ngāi Tahu as a result of the Crown's breaches of its treaty obligation to ensure they were left with an adequate endowment, few Ngāi Tahu had the resources to engage in extensive fishing operations".

Colonisation also saw the once bountiful fisheries much depleted. In the 1992 Waitangi Report on the Sea Fisheries (1992, p. 9), it is noted that the Tribunal heard:

[66] Interviewee 34.
[67] Interviewee 10.

> … a sadly repetitive story about the depletion and destruction of fishing resources. Time and again we were told how once plentiful seafoods from all around the Ngai Tahu tribal coastline and in the estuaries and rivers could no longer be caught or gathered. Time and again pollution and over-fishing were held responsible for the loss. Sewage outlets, industrial discharges, river water deviations and agricultural run offs have contaminated and depleted traditional beds and fishing grounds. Decades of over-fishing with no concern for renewal of the resources has meant some species of kai ika and kai moana that once "graced the table" of the marae and home have all but vanished. Poor conservation management by the Ministry of Agriculture and Fisheries was also a frequently voiced criticism by Ngai Tahu people.

As the report emphasises, "[t]here can be no doubt that of all the factors responsible for the depletion of the fisheries, the principal culprit in Ngai Tahu eyes has been overfishing caused by commercialisation" (Waitangi Tribunal 1992, p. 18).

Many Ngāi Tahu worked in the fishing sector during the twentieth century, either as deckhands or as owner operators. As one told the Tribunal (1992, p. 11):

> My Dad started fishing commercially at 14 years of age and died at sea at the age of seventy-seven. My two brothers fish commercially and my son fished with them seven years all through his school holidays, and weekends–he is now eighteen. We believe that we have acquired a certain amount of expertise of the sea and its resources…we have fished and eaten these resources all our lives.

Even when working in the commercial fishery sector, many Ngāi Tahu held strong to their core beliefs. One witness at the Tribunal (1992, p. 20) explained that:

> Our Dad told us that we were never to use those [nylon] nets – because they would eventually destroy the resource. Nets cannot discriminate between mature and immature fish. This is the reason why we do not use nets today. We were long liners and still are today. Long line fishermen catch a superior quality of groper. Long lines have no impact on young groper, it is therefore desirable in terms of conservation and the survival of the species.

One interviewee – born in 1942 – who when asked about who taught him to hunt and gather, talked about his grandfather:

> *He was a fisherman… He was a whaler… we'd go out on a fishing expedition sort of thing and we'd gather up all the whānau and we'd go to [our kainga] and go netting and we'd gather some pāuas and mussels and all that sort of thing in a day. And then we'd all cook it up together and it was really quite a… And some of the other cousins and things like that would be there also. So a lot of our ways of doing things came from [my] grandfather.*[68]

He went on to explain that they had lost access to many of the beaches where they had gathered kaimoana, and this had weakened his connection with the whenua, saying that "*we used to go down to [the local] beach and we felt that that was our own… But since we've grown up and moved away whatever connections we've lost because when you go there now you have to pay to get through the gate to go down to [our] beach*."[69] Another – also born in 1942 – told us that when she was growing up the source of income was "*fishing and muttonbirding for our whānau and all of our hapū… [our] livelihood was centred around the Tītī Islands and fishing*".[70] Another participant – born 1954 – noted that "*coming back home it was always having fresh kōura [crayfish] and everything from the sea, 'cause [his whānau] were all involved in fishing*". One participant – born 1939 – whose cousin was also a fisherman told us:

[68] Interviewee 8.
[69] Interviewee 8.
[70] Interviewee 2.

> *My dad became a fisherman. He was an oysterman before the war. He was injured at Casino… he returned to fishing. The thing I remember most about that was he couldn't get any insurance because he was diabetic and because of his arm, so he had to go fishing and we hoped that he would always be safe. We grew up on the sea and we had an understanding of the sea but three times his boat went down. Twice he managed to grab his insulin before he got off but the third time he didn't so we managed to fly it in around the Sounds - he was crayfishing - to get it to him.*[71]

One participant – born in 1954 – explained that where she grew up was a "*fishing village… [fishing was the main source of income]… my uncle had a fishing boat*".[72] Another – born in 1959 – explained that "*fishing was the family… and so a lot of fish was consumed…. We lived from the sea was my understanding. The aunties and uncles all lived from the sea… I know that fishing was really strong. I think [one] uncle had his own boat. [Another] uncle had a boat*."[73]

The underlying beliefs that guide fishing and other productive actions also remain for some. For example, an interviewee – born in 1959 – outline a story told to him by his grandmother about how when her husband was out diving and a mako shark swam around him. She told how she jumped in next to the shark, explaining to her grandson, "*don't worry about a mako shark, that's our guardian*".[74] The mako shark was a principle form of food and therefore seen as a protector of the people through providing sustenance. Manaakitanga was expressed by fishers in the whānau as well. Another participant – born in 1954 – explained that "*coming back home it was always having fresh kōura and everything from the sea, 'cause they were all involved in fishing and so forth so it was always a treat to come back home*".[75]

After the change to the Quota Management System in the 1980s, many Māori fishers were pushed out of the sector and even after the fisheries settlements, individuals and whānau are less active in the sector even whilst owning a large percentage of the quota collectively (Rout *et al*. 2019). This was expressed by one participant – born in 1944 – who talked about the change in her kainga:

> [Your kainga is dominated by farmers and fishermen?] *Yeah, fishing… The last cousin has sold his fishing boat, so we haven't got any cousins…[fishing]…* [Are there still many boats going from there?] *… Still got about four or five I think. It's not commercially viable anymore. That's really what it boils down to. If they're going to fish they need to be closer to where they're selling it… But when I was living in [my kainga] as a child I had uncles who fish… Yeah it was [quite a bustling fishing town]; lots of fishing".*[76]

Numerous witnesses at the Waitangi Tribunal on Ngāi Tahu sea fisheries (1992, p. 25) gave evidence of how the QMS "dispossessed local Ngai Tahu of their right to participate in commercial fishing" and caused further degradation of fish stocks.

Ngāi Tahu Seafood (NTS) formed following the granting of quota to iwi under the Quota Management System. Like Ngāi Tahu Farming, kaitiakitanga is a core guiding value for the company. NTS "believe they are a seafood company not just a fishing company. Their job is to extract on a sustainable basis as much profitability from the seafood chain as possible at any stage of that process. If technology in one part of the chain has the potential to improve returns to Ngai Tahu then they want to be in a position to capitalise on it" (Nixon 2003, p. 12).

[71] Interviewee 35.
[72] Interviewee 36.
[73] Interviewee 9.
[74] Interviewee 37.
[75] Interviewee 38.
[76] Interviewee 9.

Harnessing technology, a flexible approach to implementing values, has been a core way in which NTS has enhanced its sustainability (Nixon 2003). One way NTS is putting this value into practice is by hiring a marine biologist with the goal "to develop an environmentally sustainable integrated multi-trophic aquaculture where we can grow multiple species in the same water space to help mitigate the environmental impacts associated with aquaculture" (Te Rūnanga o Ngāi Tahu N.D.f).

NTS have also focused on controlling the value chain as a means of operating more sustainably, they have "been prepared to spend money to add value to the seafood business in ways that a commodity business would not do… because in the long run… running a commodity business is a sustainable business model" (Nixon 2003, p. 13). As well as kaitiakitanga NTS helps facilitate manaakitanga by regulating customary fisheries, thus ensuring pātaka (fish caught under the customary regulations and available for hui, tangi etc.).

Smaller, individual Ngāi Tahu fishers also operate within self-imposed strict kaitiakitanga methods. Ngāi Tahu fisher Nate Smith, who runs Gravity Fishing, explained:

> In little more than a decade, we noticed a significant decline in blue cod catches in particular, and began to question the sustainability of using cod pots for bulk harvesting the species. When we first started fishing we were averaging 700–800kg of blue cod a day, and the last season we did with cod pots we were down to an average of 300kg. In that time I'd seen the decline, and I just knew there was a real problem.

This forced him to reconsider the way he was operating, "[t]he people who came before us were using the right methods and were fishing in the right way" (Te Rūnanga o Ngāi Tahu N.D. g). Smith remembers his grandfather catching blue cod on hook and line around the coast of Rakiura, "[b]ut we got too smart and used too much technology to look after the resource"(Te Rūnanga o Ngāi Tahu N.D. g). Rather than continuing to use cod pots and putting increasing pressure on the fishery, he conducted research, trial and error. Ultimately, he converted his boat to hook and line jig fishing, enabling him to target the cod. He also decided to cut out the middleman so that he could earn more per kilogram. Now Gravity only catch and supply pre-ordered species of fish, while reducing pressure on the precious blue cod fishery. As Smith explains (Te Rūnanga o Ngāi Tahu N.D. g):

> Our views on sustainability are different to the next guy's views on sustainability. How we gauge it is we can preach that we are sustainable, because we know what's going on out there. We're out there every week and we analyse the fish stocks. We know when a certain species of fish is going to be good, and we know when it's not going to be good. We're only ever putting a small number of hooks in the water at any one time and we're only ever taking what we need, which is what has been pre-ordered. We may catch that in an hour of fishing on a Monday morning, and then we come home.

Another Ngāi Tahu fishing firm that has embedded kaitiakitanga at the core of its operations is Okains Bay Longline Fishing, who use "only the more environmentally friendly longline technique, no trawling or gill netting" (Keene 2007, p. 21). As the owner, a Ngāi Tahu tribal member, explains, the major issue with long lines is seabird bycatch (ibid):

> We've been really proactive in solving this problem. I've been involved with writing the [industry] code of practice. On our latest boat we put in an underwater setting pipe at huge cost. We chose to ask for observers on our boats. They were on for six weeks. In that time we set 850,000 hooks and caught three muttonbirds. It wasn't bad, although it's not perfect.

The company also "developed recyclable cardboard packing featuring water-based inks, instead of the traditional polystyrene boxes used by the fishing industry… [and their] fishing vessel [is] run on a biodiesel mix made in New Zealand from recycled cooking oil and sustainably-grown canola" (Keene 2007). While some private Ngāi Tahu fishing firms sell their catch to processors who then process and distribute the

product, others such as Okains Bay Longline Fishing, process their own fish and control the entire supply chain, selling directly to retailers nationally and internationally, capturing more of the value and enabling them to maintain higher environmental standards.

*Gardening*

There is obviously a crossover between agriculture and gardening. This section looks at what might be considered the home or marae garden rather than commercial agricultural endeavours – with the acknowledgement that historically a home and marae garden were also commercial agricultural endeavours depending on the context. By the 1850s, Ngāi Tahu at Ōnuku were growing maize, wheat, melon, potatoes and pumpkins in gardens, which they used for trade but also for themselves (Leonard 2005). Home gardens were common not just for Māori but the entire population of New Zealand during the late nineteenth and early twentieth centuries. As Earle (referenced in Millar 2015) notes, during the first half of the twentieth century, as well as their home gardens most marae had communal gardens. Many Māori retained these gardens even after the urbanisation push of the mid-twentieth century, though it was more common for rural Māori to have a large garden. As Stein (2016, p. 52) writes, "up until the 1950s and 60s most rural Māori continued to have large gardens, typically household gardens that were worked communally, but in the 1970s urbanisation increased access to cheap processed foods and contributed to a decline of Māori food gardening".

In the interviews, many of the older generations noted the size of their whānau vegetable gardens. For example, one participant – born in the 1930s – explained how important vegetable gardens were as a vital form of sustenance, "*they all had good gardens because it was the 1930's… [the] Depression. Everybody had nice garden, good gardens.*"[77] A second – born in 1939 – explained that when she was growing up her whānau "*had a big vegetable garden and a big flower garden… I used to help mum in the garden and things like that*" and her grandfather "*had this monstrous vegetable garden… rows and rows of vegetables…*".[78] A third – born in 1939 – said that her whānau "*had a fairly big section and there was a lot of fruit trees, apple trees, pear trees, all the different varieties there… We had a fairly big garden there*."[79] Another – born in 1934 – said that in his small coastal village, "*everybody had a massive garden and I mean massive gardens… they were brilliant gardeners*".[80]

There was a real self-sufficiency that came with gardens up until the 1960s. One participant – born in 1944 – explained that in her remote village *"we had huge big veggie gardens so that you didn't buy vegetables*".[81] Gardens were also a form of fulfilling manaaki. As one interviewee – born in 1954 – explained that her whānau "*had the most amazing vegetable garden. I'm sure we used to have to feed like a big family… I'm sure he used to feed half of [our small village] as well… [Dad] had an amazing vegetable garden*."[82]

There has been in recent years a resurgence in gardening, with many young urban Ngāi Tahu seeking to grow their own food and, in some cases, recapture traditional Māori gardening techniques. One initiative spearheaded by Ngāi Tahu tribal member Jade Tempara is 'Hand Over a Hundy", which "works by sponsoring whānau $100 to buy seeds, seedlings, compost, and seed raising mix to start a garden. The whānau is then matched with a mentor, who over four seasons teaches them how to grow fresh produce in their own backyard, as a step towards self-sufficiency" (Te Rūnanga o Ngāi Tahu N.D. h).

[77] Interviewee 39.
[78] Interviewee 8.
[79] Interviewee 31.
[80] Interviewee 4.
[81] Interviewee 9.
[82] Interviewee 36.

Likewise, many Ngāi Tahu marae have their own gardens. The new Kaikōura marae Takahanga has had a garden since it was built in 1992 that not only provides food but also training on how to grow your own food (Te Rūnanga o Ngāi Tahu N.D. i). In many of these marae gardens "there's now a return to cultivated crops like kumara, potatoes, kamokamo and a host of others" (Te Rūnanga o Ngāi Tahu N.D. i). As well as serving as a source of food for the marae and community, these are also being used for endangered species recovery, enabling both manaakitanga and kaitiakitanga.

In Koukourārata, which was once a thriving area of Ngāi Tahu food production, there has also been a renewed focus on gardening and horticulture. This "probably began with the planning of the marae community garden back in 2011. The māra kai spreads across two plateaus beside Koukourārata Stream and includes a tunnel house" (Te Rūnanga o Ngāi Tahu N.D. j). Following the success of this marae garden, they have launched a commercial venture, "the māra kai, an organic potato crop which will provide seed potatoes, eating potatoes, revenue, and jobs; and be marketed under the Koukourārata brand" (Te Rūnanga o Ngāi Tahu N.D. j). This will be followed by two more projects, the "second is about establishing the taewa garden, and the third is an aquaculture and organic horticulture course using the new whare wānanga" (Te Rūnanga o Ngāi Tahu N.D. j). At Koukourārata the garden also serves as a means of fulfilling manaakitanga and maintaining utu (Te Rūnanga o Ngāi Tahu N.D. k):

> For a donation, locals can help themselves to the garden surplus – a bunch of fresh silverbeet, a fat cabbage or a choice broccoli head. Or, if they're after lettuces and salad vegetables, they can harvest directly from the garden, saying thank you perhaps, with a little tidying up.

There is some flexibility in the gardening approach at Koukourārata: "[t]raditional organic Māori cultivation methods are being used and the soil has been enriched with horse manure, sheep manure from local shearing sheds, and seaweed from the bay" (Te Rūnanga o Ngāi Tahu N.D. k). While these are described as 'traditional', Māori never used manure as a fertiliser before contact because it was impure and broke tapu.

The underpinning beliefs still remain in younger generations. One participant – born in 1990 – when asked about having your own land said that one of the benefits, as well as "*learning about which different kai you can grow" is you can "[grow] in your mana*". However, the rigidity between traditional and introduced does exist. Compared to early Ngāi Tahu, who quickly viewed potatoes as 'traditional' for some in the modern era, they are not seen as 'Māori kai'. One participant – born in 1979 – when asked if they had a garden:

> *My mum looked after that mostly and my nana although she's not Ngāi Tahu on my mum's side it's my grandfather that's Ngāi Tahu, she's a very, very keen gardener so I think that might have rubbed off on my mum a little bit. We did have a vege garden when I was growing up… We didn't really have Māori kai though; it was things like silverbeet, carrot and potatoes*.[83]

### *Food exchange*

In the immediate post-contact world, Ngāi Tahu trade in food blossomed. As well as having new customers, Ngāi Tahu had new food types and new technologies that helped them gather and trade food. This also saw a demographic shift, as Anderson told the Waitangi Tribunal (1992, p. 202), "Ngai Tahu migrated to new localities to indulge in new trading opportunities, to have access to the new agriculture and to participate in new industries". Kainga started producing large amounts of new food crops to trade with European visitors, and by the mid nineteenth century Ngāi Tahu were trading with new Pākehā settlements, even trading food across the Tasman in their own ships. For example, by the eighteen fifties, the kainga at Ōnuku was supplying large amounts of food to Lyttelton and Christchurch (Ogilvie 1990). As

[83] Interviewee 40.

noted above, much of the early Ngāi Tahu agriculture focused on producing trade goods rather than representing a sudden transition to a new diet.

While Ngāi Tahu quickly began trading the new foodstuffs to the new visitors, they also traded many of the traditional foods among themselves after contact. As the Waitangi Tribunal (1992, p. 155) outlines:

> Food gathering was also largely seasonal and evidence showed that Ngai Tahu would move to an area and there catch and preserve food to take back to their more permanent settlements. In autumn an annual migration took place to the Tītī Islands to gather mutton bird. Even after the land purchases Ngāi Tahu continued to gather their traditional food not only near their kainga but in long journeys across and down the island. These seasonal journeys also gave opportunity for hapū to barter with other hapū.

Numerous witnesses at the Tribunal explained how they had bartered mahinga kai as a way of ensuring they had enough food: "Alan Russell told of catching in one day 500 kerosene tins of whitebait and of railing these and other fish to Christchurch for sale. Paddy Gilroy spoke of bartering tītī for smoked eel and Iris Climo of bartering various foods" (Waitangi Tribunal 1992, p. 890).

As well as increasing gathering, the whaleboat also encouraged growth in trading (Bathgate 1969). This increase was marked by the decline of many inland settlements, including the traditional trade hub of Kaiapoi, as they were displaced by coastal settlements not long after the whaleboats became commonly owned in the 1830 and 1840s (Bathgate 1969). Trade in the increased numbers of muttonbirds blossomed, as Bathgate (1969, p. 366) explains:

> According to Wohlers, before the introduction of the whaleboat the Maoris in Foveaux Strait could only send a few muttonbirds in open boats to their kin, and that not without danger. This pattern changed following the adoption of the whaleboat. Jollie, for example, records that Maoris from the Foveaux Strait area sailed in whaleboats to Molyneaux to exchange muttonbirds for eels in the 1840s. In 1843 Shortland found that a fleet of whaleboats was being assembled at Waikouaiti in order to take muttonbirds to the Ngāi Tahu settlements around Banks Peninsula and in the same year he came across a party of Māoris at Timaru who had come from Moeraki and were travelling north in whaleboats with cargoes of muttonbirds intended for their kin living around Banks Peninsula.

Trade in muttonbirds remained essential for many Ngāi Tahu with rights to the islands. As one interviewee – born in 1942 – explained when asked if they sold or traded muttonbirds:

> *It was mainly trade. Back in the old days, in my great grandfather's time, in those times, it was all trade… they'd come down from up north and they'd trade for corn, watermelon and kūmara that doesn't grow here. They'd take them up the line and there was no cars or roads in those days. It's a life blood of our people really. It's been sustained and kept families alive.*[84]

## 4.4 Post-contact Ngāi Tahu food preparation

The ways in which Ngāi Tahu prepare food have changed dramatically, both in terms of the methods used as well as the guiding tikanga. Regarding the methods used, boiling became a far more common means of food preparation once the iron cooking pot was widely distributed, roughly by the 1830s (Beaton 2007; Leach 2008b). Iron ranges were gradually introduced to New Zealand, though it took longer for most Māori to be able to afford them (Leach 2008b). By the 1850s, many Māori were not only growing wheat, but also baking it into bread for sale (Leach 2008b).

[84] Interviewee 2.

In the 1930s and 1940s many of the old food preparation techniques were still in use. One interviewee – born in 1934 – explained how they used pōhā as a means of preserving food when he was growing up:

> *I remember Dad, we caught a black swan and he skinned it - never plucked it - skinned it and gutted it and put it in a bag, a pōhā bag, you know how you blow it up. You put the old thing in, draw, suck all the air out and then tie it up and hang it up. We did the same with the pāua. I remember the pāuas were six weeks in the bag. We put them in the shell and we took them all out and put it … like that. They hadn't gone soft or anything; hadn't shrunk or nothing. And the swan went slightly black. I said to Dad, "Hey the swan's gone black," and he said, "No that's okay, that's the skin over…*[85]

He also explained how hāngī were still common when he was growing up:

> *In our early days down at the school we used to have a hāngī pit down the bank… we used to have a hāngi pit down there. Every now and then Dad used to put a hāngī down but it was different to everybody else. They wrapped it in brown paper, all the fish, wrapped it in brown paper and wet it and put it on the stones and covered it all up. And he had a tin, put a tin on the top and a small spud with water in it, cold water in it, and it sat right on the top and that was right up to the level… [in my village they] still hāngī… but the old type of hāngī is gone now until you get these big occasions.*[86]

However, while there have been many changes, many of the pre-contact methods remain in place, with the strongest divide being between food preparation at home and preparation at a marae or social gathering, though this is a generalisation rather than a firm rule. The hāngī remains an important means of food preparation, particularly for formal occasions on marae, including tangihanga. And while "the concept hasn't changed… much of the equipment has, and now there are health and safety regulations to abide by. That's changed the taste of things" (Te Rūnanga o Ngāi Tahu N.D. l). Here the rules that inform food preparation impact the flavours, whereas in the past the hāngī uses rourou (woven flax baskets) and harakeke (flax) mats, with the meat placed straight onto the hot rocks, now wire baskets are used. These "natural materials and the hot rocks imbue the food with subtle flavours you don't get in modern hāngī" (Te Rūnanga o Ngāi Tahu N.D. l). An interview participant – born in 1934 and raised in Moeraki – talked about how old preservation techniques were being revived in formal situations:

> *For me growing up I never experienced cooking in pōhā, you know that wasn't part of our daily routine or weekly routine. However just recently over the last three or four years I've noticed it coming back. Like we've been to different hui haven't we and they've had the cockles cooked in the pōhā. When we went to Kaikōura when we came back they cooked the pāuas in the pōhā and then we ate it. So some of those traditions are starting to come back in.*[87]

Traditional food preparation does still occur in the home or more intimate settings, though this was more common in the generation born before 1960 in the interviews. One interviewee - born in 1939 – told us about how after his uncle and he found some mussels, his uncle "*cut a piece of kelp, opened it up and then stuck all these mussels inside it and put it on the fire*".[88] Another – born in 1959 – talked about how as a child he and his friends would catch kereru and "*pack them in clay and throw them on an open fire…And the beauty when its cooked in clay is it never burns, so it just cooks in its own juice…when you bash it the feathers come off and the puku and everything shrivels up inside*".[89] Another – born in 1942 – remembered how when she was young her "*dad speared a greenbone, stuck it in a bull kelp, opened it up like you do for the pōhā, put it on the open fire and we ate it like that*".[90]

[85] Interviewee 4.
[86] Interviewee 4.
[87] Interviewee 4.
[88] Interviewee 31.
[89] Interviewee 37.
[90] Interviewee 2.

One participant – born in 1954 – explained how "*flounders cooked in mutton fat, there's nothing wrong with that because they become crispy and yummy; it's the best way to cook flounder*".[91] Another participant – born in 1953 – talked about when she was young, "*we went eeling there would be a stream of eels hung to the water tank and sort of nailed up there all drying out; skinned and drying. That was a regular and they were always there... They are really yum to eat; I can remember we used to eat them*."[92] Similarly, another – born in 1975 – explained that when her whānau go eeling and they hang them on the washing line to salt and dry them before they get smoked.[93] This same process was also something another interviewee – born in 1970 – remembered from her childhood, *"[drying] and salting them. Dad hung them underneath the water tower… He had a wire going around. And he showed my brothers how to prep them [skinning them]*."[94]

Because they had retained their rights to the islands throughout the period of colonisation and land purchases, the muttonbirders have retained many of their food preparation techniques. One interviewee – born in 1939 – talked about how his grandfather taught him how to prepare the pōhā that muttonbirds were stored in, "*the kelp, you had to split it down [the middle] and then once you've done it, blow it up like a balloon and then hang it up and let it dry out inside and then just deflate it and then roll it up and you could just take it down to the island and use it as a container. He used to do that. He wouldn't use any of the tins or barrels of things of that nature*."[95] He went on to explain how after bringing in the wood in the morning:

> *In the afternoon I had to help mum in the workshops cutting up. There was 180 birds there I had to cut the heads, cut the wings off and the kumo and the legs, and do that for the 180 times. So that took me a few hours to get through those. And sometimes I used to get growled at 'cause I used to try and get a bit too fast, so I was told to slow down and make a good job. That was one of the lessons I got from dad; he liked to be very meticulous, prepare the birds properly… And of course mum done all the splitting and the gutting and then dad would come in later on after the birds were cleaned, he done the salting and packing. He'd finish at nine o'clock at night. So it was from the time you get up at six, he was probably in bed about nine*.[96]

Another participant – born in 1942 – talked about her memories of her grandfather cooking when they were down on their island. "*I must have been really only three or four in the days when pōua was still coming with us to the island. He used to make the most awesome tarts on the camp ovens on the open fire with the hinu [fat] out of the titi. The treacle in them; he'd put them in the camp oven and make these pies.*"[97] She also talked about how they use to prepare the 'seconds' birds:

> *We used to cook them and then you put them in the pōhā or in the tin and when they'd cooled down. We prepared the big whale pot up on a big tripod and we'd save all the fat from when we'd first starting catching. On tahu day, that hinu would be all put into this big whale pot and rendered down. You take all the knuckle off with a frying pan on a long rake handle with holes punched in this pan and you rake all the knuckle off as it floated to the top. When it was smoking, you also had saved all your torn birds or birds that weren't able to get all the feathers off. Good birds too like A grade if you like but those were the ones where these others one, the torn ones, damaged ones went into the tahu pot in our case as well. Then when the fat was smoking, you'd get your birds out and you'd put them in. When they were cooked, they floated to the top. In the meantime there'd be a big prepared rack of*

[91] Interviewee 38.
[92] Interviewee 22.
[93] Interviewee 41.
[94] Interviewee 42.
[95] Interviewee 28.
[96] Interviewee 28.
[97] Interviewee 2.

> *chicken mesh with bird punawi leaf… It only grows on the island; it's a great big leaf similar to a pumpkin or Chatham Island leaf. It's glossy and shiny. Beautiful smell and we'd take the tītī out, put them on that to drip and then when they cooled down, take the fat out of the whale pot, pour it in the container, the tins in our case in those days and then put your birds in and seal the lid. We'd bring them home. Of course the fat would be congealed by the time you got home but tītī fat doesn't go like mutton fat or any of those. It's still soft and pliable. A lot of the ones from up north, they do with those birds and then they'd rip the lid off and didn't take it out; fat up to their elbows. We didn't do that; we put it in the oven and melted the fat off it.*[98]

While most muttonbirders now use plastic buckets rather than pōhā they still preserve the birds in their own fat, retaining the traditional preservation method. A few muttonbirders still use the traditional pōhā (kelp) bags to preserve the birds in, retaining both the skill of making them and preserving the birds using the old fashion methods.[99] As one interviewee – born in 1942 – explained, her "*pōua used to [use pōhā]. His birds he put in pōhā. Unfortunately of course, now I wouldn't be able to do it, I don't think. Well, I could learn…*"[100] Another – born in 1964 – explained that another limitation on making pōhā was not only the lack of time or skill but also the kelp itself, saying that the "*bull kelp sort of died out a wee bit. People like [a whānau member] and them are still doing some; they still do pōhā; I think they're finding it pretty hard to come across it as well. I think it just started dying out. It wasn't that it was being overharvested or anything*."[101]

For those born after 1960 some of the more traditional home cooking methods remain. As one – born in 1974 explained, "*I can always remember the boil up. I love doughboys, pork bones, boiled sausages, spuds, basic staple starchy spuds, silverbeet, carrots and stews*."[102] Another – born in 1960 – talked about how "*we grew up knowing the tikanga of how to shell pāuas and where to shell them and where not to shell them*".[103] Another – born in 1974 – reminisced about how different her house was compared to other kids when she was growing up, noting that they had things like "*cod heads boiling in the pot and just different eh*".[104]

In her thesis exploring the Māori culinary tradition over time, Beaton (2007, p. 131) shows the continuity of Māori methods of preparation, as she writes:

> It is widely accepted that during the colonial stages of New Zealand Maori experimented with Pakeha foods, creating dishes that were sometimes abhorred by Pakeha like kangawai or kotero. These dishes were processed using European foods and traditional Maori methods, because maize was similar to karaka; and potatoes to kiimera. However, what was not known, and not discussed in previous writings on Maori cuisine, was whether this notion of processing foreign foods with Maori methods persisted through to the present day. Through the analysis of the Maori cookbooks, there is strong evidence to suggest continuity in this regard. At first glance, many of the recipes look to be European in nature, yet, on closer inspection, there are several clues to show that there is a Maori core to the recipes, in fact over half of the recipes in the Maori cookbooks employed Maori preparation methods, albeit, these were often not "traditional" methods, but adaptations.

The tikanga surrounding food preparation has also changed. Beaton (2007, p. 125) explains that:

> Food preparation within a contemporary household is markedly different to that of pre-European times primarily because of the environment in which the food is prepared. Traditionally food was

[98] Interviewee 2.
[99] https://ngaitahu.iwi.nz/culture/mahinga-kai/i-am-tiny-metzger/.
[100] Interviewee 2.
[101] Interviewee 43.
[102] Interviewee 44.
[103] Interviewee 32.
[104] Interviewee 45.

> cooked and eaten outside, which allowed for the separation of food (which is noa) and humans (who are tapu). Nowadays food and people are in constant contact and this has required modification to several cultural concepts.

Beaton (2007) goes on to outline the tikanga and kawa that remains in place, identifying the prohibition against sitting on any area where food is prepared or eaten as one of the strongest remaining rules. Likewise, not using the sink for anything other than food preparation or cleaning of food dishes, and the rules regarding not washing anything used in food preparation, like tea towels, with clothes or other items not related to food preparation. While many of these are viewed as 'common sense' rules that are focused on hygiene they "have originated from within an ancient Maori kaupapa that asserts that food (and the extensions of food) will diminish the mana and therefore the tapu of an individual who willingly places themselves in that danger. Although the environment has changed, the persistence of personal tapu is still strong" (Beaton 2007, 127).

## 4.5 Post-contact Ngāi Tahu food consumption

Much of the tikanga and kawa surrounding food consumption has changed since contact, though various aspects remain, some with a special strength. The same divide regarding home and formal situations is found as with preparation, with more of the tikanga and kawa remaining in the latter. That said, the importance of manaakitanga remains central in many Ngāi Tahu homes, as do some tikanga and kawa, such as not passing food over people's heads (Beaton 2007). Manaaki is critical in formal occasions as well, but while at home the offer is the most important aspect in formal situations the type of food is important as well. As Beaton (2007, 128) notes:

> [I]n formal occasions such as hui, the food served is very important. Often the atmosphere of the hui is determined by the quality of the kai served. Moreover, the attitude of the cook when preparing the food also attributes to the overall atmosphere.

Many other tikanga, and kawa are still in place, "[f]ood in these formal occasions act to whakanoa the participants and is therefore served after the completion of the pōwhiri (welcome ceremony)" (Beaton 2007, p. 128). Likewise, for those being given the food, the "visitor should partake of the meal in order to show respect to the host" as "to refuse the hospitality is to reject the tangata whenua for it is in the sharing of the food that the manuhiri become part of the marae" (Beaton 2007, pp. 128-129). The visitors should also bring a koha, or gift, which is often kai, particularly at a tangi (Beaton 2007). The ability to extend manaaki has been impacted by colonisation, as one submission to the Waitangi Tribunal (1992, p. 23) on Ngāi Tahu sea fisheries explained:

> It has always been customary to provide the best kai available in the area for our manuhiri. Up until five years ago we managed to [do] this quite well with the help and generosity of our fishermen. However they are no longer able to provide the kai-moana anymore because of the quota system, and regulations. We must now purchase almost all the Kai-moana we require to feed our manuhiri.

A number of the participants also talked about the food consumption. One – who was born in 1934 – talked about when they gathered pāua:

> *[S]ome of them used to eat it on the beach which the old girl used to go mad, it was a bloody no, no eating on the beach. She'd stand there and tell me if want to eat it you take it above high tide. And since then I found that the high tide is more or less to the Māori is no man's land as they call it eh. I never puzzled out for years why they wanted us to take it above high tide.*[105]

[105] Interviewee 4.

The tapu regarding gathering seafood still remained for some, while for others it had lost its importance. Another – who was aged fifty in 2014 - explained how the value of manaakitanga was important in her whānau growing up. "*I remember food always coming out for everybody that came and she [her mum] would go without; she wouldn't eat. She'd put food to the visitors first and that's manaakitanga.*"[106] Another – born in 1964 – explained how providing kai for a hui was an important way of ensuring people came, that the manaaki was essential in ensuring people attended:

> *We had a hui here before we started to look at what are our values going to be for the business and so there was a big hui 'cause we'd put food on. We had rung them and no one come; 'cause I've got a big family you see with cousins and that and so we called a second hui and we spread the word that there was going to be kai and they came. There's always kai.*[107]

Manaakitanga remains as a critical component of contemporary food consumption for Ngāi Tahu and Māori in general. Dunn (2019, pp. 43-44) explains that in "ensuring manuhiri (visitors) have an abundance of food, much of which has been sourced locally, sustenance is provided for the body, mind, and spirit. Sharing kai also affords whānau, hapū, iwi, manuhiri and communities the chance to build and maintain relationships; kai and kōrero (food and discussion) go hand in hand." As one participant – born 1944 – explained "*dad was very much, a bit more than mum, very much into manuhiri got the best of everything first. You know that really traditional sort of thing; whatever you had the best went out for manuhiri*."[108] Similarly another – born in 1963 – explained how if:

> *… any manuhiri [guests] came [for dinner] they'd want us to be fed but she wouldn't allow it; mum wouldn't…* [Question: visitors first?] *…Yeah and we would look after them. We were eight and I do remember it was that age because we just did it all growing up and because older sister who is two years older than me and my older brother is a year older and us three had to do all of that cleaning up after people, feeding them, make sure the house is clean, look after tāua, respect the elders.*[109]

When asked if there was a certain food that he considered important, another participant explained that it was not so much about the particular varieties of foods but rather what he did with the food. For this interviewee, it was the gift of giving food to someone that he considered to be the most important part of food. That said, the interviewee prides himself on his skill as a gatherer and preparer of food and while manaaki was the most important thing for him the "*next best or important factor of food is the presentation of food at my table*".[110]

One interviewee also outlined how manaaki was central in the kainga (village) when he was growing up, explaining how everyone was "*providing the manaaki… You had whānau who could get the kōura, tuna… So food was always in abundance and that's how it was with all families*."[111] He noted how the traditions of the past had changed, particularly on the marae with the decision-making moving away from the foragers and cooks to others, leading to a loss of manaaki marae:

> *[Where in the past] the cooks used to be the cooks, the food gatherers used to be the food gatherers, [now those that] provide manaaki at the marae are no longer there in the numbers… I see that the succession of the manaaki marae base is slowly dwindling and it's because the decision-makers are not the cooks and all those who are normally associated with the food gathering.*[112]

[106] Interviewee 46.
[107] Interviewee 47.
[108] Interviewee 9.
[109] Interviewee 15.
[110] Interviewee 7.
[111] Interviewee 38.
[112] Interviewee 38.

There were practical considerations that clashed with core values like manaaki, many Ngāi Tahu struggled to feed their own children and the need to feed guests first and often with the best food was problematic for some. One interviewee – born in 1944 – explained:

> *I can remember my mother and father having the odd spat over, not that they argued much but, dad was very much, a bit more than mum, very much into manuhiri got the best of everything first. You know that really traditional sort of thing; whatever you had the best went out for manuhiri. And my mother would say, 'There's no way my kids are going without such and such just because your visitors…' sort of thing.*[113]

The systems of food exchange, through forms of kaihaukai or otherwise, still exist although in some cases have changed in their expression. As one participant – born in 1964 – told us, he trades food – particularly kaimoana – with local Pākehā farmers:

> *[You] do the bartering with them because a lot of them don't get access all the time and don't get the time to actually go fishing or anything like that. If you're calling past the area you just drop it in and usually you sort of don't leave with anything; they sort of usually give something back. It's a great system I like it.*[114]

The traditional kaihaukai governed by utu still guided food exchanges, with one participant – born in 1961 – telling us that when they would get muttonbirds from whānau "*we would never ever go empty handed down there. Often, from the coast, we would always be taking fish down to, or something; and from farming meat*."[115]

One of the strongest remaining tikanga is the rule against sitting on tables. As one participant – born in 1958 – remembered, her mother "*used to tell us as kids, we'd sit on the table and be like, 'Those tables are made for glasses, not arses, get your arse off there'. And we'd be like, 'Why?' 'Don't argue with me; just get your arse off there'*."[116] A second interviewee – born in 1969 – said that if "*you sit on the table, I remember this exactly. Remember the old phrase was – because I still say it to my kids now – where, if they sit on a table or anything, I go: "Look, you don't eat on the toilet, don't sit on the table*."[117] Similarly another interviewee – born in 1979 – talked about how her parents told her "'*Don't put your feet on the table its tapu'… [Why?] Because we eat off it and its cross contamination of germs*."[118]

Another interviewee – born in the same era, 1954, talked about how the atua were still acknowledged for their providing role to the whānau at mealtimes. However, the practice of had become combined with the Christian rituals for grace, showing a hybrid form. This is outlined in the statement below:

> *When we sat at the meal table we had to be properly dressed, clean, hair brushed, sitting at the table, grace would be said and nobody was allowed to touch any food. Then our grandfather would then say some karakia and he'd have a plate and those plates for the food for the atua was placed on his plate.*[119]

[113] Interviewee 9.
[114] Interviewee 14.
[115] Interviewee 29.
[116] Interviewee 48.
[117] Interviewee 49.
[118] Interviewee 40.
[119] Interviewee 38.

## 4.6 Analysis and synthesis

In an earlier synthesis, the worldview underpinning the cultural attributes of food from a Ngāi Tahu and Māori perspective was outlined. The following section explored how this worldview was given effect in practice through everyday BVBs prior to colonisation and on early settler contact. In the above section, the BVBs post-colonisation have been outlined across various themes including: mahinga kai, rāhui, farming, fishing, gardening, food preparation, and food exchange. When analysing the information gathered it becomes clear that Ngāi Tahu have adapted and adopted various food-related practices, technologies, and behaviours that have been deemed necessities or beneficial. This ranges from the use of helicopters to travel to tītī harvesting grounds through to the adoption of introduced species such as deer and waterfowl as new mahinga kai species. However, many traditional ways of behaving and knowing have been retained.

Although knowledge of the underlying traditional worldview concepts such as mauri, tapu, and noa, and practices such as karakia, are not, in many cases, described and understood in a day-to-day sense by most interviewees, they still exist in implicit understandings and behaviours. In terms of tapu we see this in practices aimed at maintaining balance which includes: refraining from entering protected or delicate areas essential for maintaining the habitats of valued mahinga kai species; and maintaining respect for atua domains through practices such as not shelling shell fish below the high water mark and maintaining separations between food consumption and preparation. We see a strong retention of the kaitiaki ethic through a range of practices designed to protect the mana and mauri of the natural systems from which food is procured, and also a sense of being nurtured by the natural environment itself and the kaitiaki animals within it.

The nomadic, seasonal, and hunter-gatherer aspects of Ngāi Tahu culture were also retained as colonisation unfolded and new industries emerged. Many Ngāi Tahu were mobile following seasonal work and harvesting opportunities that included: the freezing works, sheep shearing, commercial fishing, and tītī, whitebait, kererū and tuna (eel) harvests. Substantial gardens were often maintained at permanent dwellings. It is clear that mahinga kai remained central at meeting subsistence needs and the core Ngāi Tahu identity as hunter gatherers.

Food, and in particular mahinga kai, has remained central to maintaining personal mana, and perhaps more importantly manaaki (building mana), in terms of the sharing and gifting of food to maintain communities and show respect for others. The importance of manaaki in the post-colonial world was enhanced by the increased need to share food for sustenance, but it also served to bond those small communities together. Many traditional food preparation methods have been retained and are experiencing a resurgence as an assertion of cultural identity. Specific mahinga kai foods and associated preparation methods are still key to the identities of many Ngāi Tahu hapū. Rights of access to mahinga kai, and the ability to manage the ecosystems from which it derives, remains a central tenet of Ngāi Tahu political activity and drives for tino rangatiratanga. As highlighted within this report, mahinga kai is so important as to constitute the ninth claim within the Ngāi Tahu treaty settlement.

The contemporary era has brought a range of Ngāi Tahu corporate food producing entities that have attempted to embrace traditional values and concepts. These include post-settlement corporations, Māori land trusts, and private whānau enterprises. They work on scale and embrace innovative technologies to meet kaitiaki obligations, from nitrate sensors in soil to limit pollution through to long-lining technologies that reduce bi-catch in fishing businesses. Traditional practices are still employed such as rāhui, where overexploited areas are retired to allow recovery. Furthermore, attempts are made to embrace values such as manaakitanga and whanaungatanga in terms of personal, community, employment, and commercial relationships.

Thus even in contemporary corporate settings indigenous ways of knowing are becoming embedded within food procurement, production, and processing methods.

The credence attributes of food identified through this analysis of colonial Ngāi Tahu history retain the characteristics of food produced prior to this era, albeit that many of the key concepts are less explicit and have become implicit within practice. However, three new cultural credence attributes also emerge that may be termed modern vitalism, cultural regeneration and indigenous investment.

The term modern vitalism refers to the manner in which Ngāi Tahu have taken traditional indigenous concepts such as mauri, mana, and kaitiakitanga, and have applied them in settings incorporating current science and technology. This gives rise to food that has an attribute of being both contemporary yet produced according to an indigenous wisdom tradition.

The term cultural regeneration refers to the processes of revitalising traditional methods of food procurement in a way that allows culture to be maintained and passed on across generations. This gives rise to food that has an attribute of maintaining cultural practices at risk of extinction.

The term indigenous investment refers to the manner in which modern food-generating tribal corporations that manage collectivised assets generate profits that are invested back into charitable activities that support indigenous cultures, welfare, and activities. This gives rise to food that has the attribute of supporting the wellbeing and welfare of indigenous people and their lands and water.

## 4.7 How to convey Ngāi Tahu food in markets

While the interviews were focused on traditional and contemporary Ngāi Tahu BVBs as they related to food production, preparation, and consumption, some interviewees also discussed the project and how they thought Ngāi Tahu kai should be marketed to international customers.

When asked what makes food Māori, the interviewees were fairly consistent in their opinions. One explained that "*it is not just one part – it is the entire thing. The connection to the whenua, the relationship to it… Taking the translation of Māori as meaning normal Māori food can be whatever we want it to be so long as we are the mana whenua.*"[120] Another explained "*it was not a certain food that I consider important, it was not so much about the particular varieties of foods but rather what I do with them*" that make food Māori.[121] He went on to say "*what made a food 'Māori' food was a matter of linguistics because to me, all food is Māori food. For me, I was bought up to understand that Māori means normal or natural*."[122]

The interviewees were also asked how Māori food should be marketed to international consumers. One explained that "*if we want to market something like mahinga kai to international consumers it needs to have a whakapapa*".[123] When asked how to build relationships with consumers to convey cultural attributes another said that it was about connections and the growth in mana that results:

> *The best way of expressing cultural attributes is through whanaungatanga – a relationship. So in traditional trade agreements we made through relationships and these were tapu, because there were elements of sanctity around it. There is ritual around these relationships that make them sacred that add value to the production chain as well. There is the exchange of mana between parties… Brokerages*

[120] Interviewee 11.
[121] Interviewee 7.
[122] Interviewee 7.
[123] Interviewee 11.

> *become an encumbrance. This is a western thing. The consumer needs to develop a relationship with the mana whenua. Brokerages can capture the relationship but in western sense that is middle men and they add margin not value. The value of the exchange becomes the value of the relationship between the two parties and that is the mana exchange going on. It is not just about maintaining the mana of each party but also adding to it. Growing mana between two parties through exchange, that is the value… having someone working for the producer that can market their mana. It is more like having an employee rather than a contractor who is taking a percentage of the volume that is flowing through. Talking in a modern institution sense it is about cutting out that middle man that gets in the way of the relationship. The exchange of the narrative becomes important – about what went into making the final product – the stories from the mana whenua and the chain of production. It is not so much about telling a story about me and how great I am but having the people receive what I have to offer and going wow then telling the story from their perspective of me and my products. It comes down to the experience between the parties the stories that are associated with this experience is what creates value. They are experiencing us and going wow and telling that story – that then enhances my mana when they tell the story about their experience with my product and the mana whenua that created it. Now that wow factor can be any number of things along the spectrum of the chain of production… It is also important to take and make the time to connect with the consumers in order for this message to be conveyed… That is where whanaungatanga and manaakitanga become important. Marketing whanaungatanga and manaakitanga make it a Māori. It is give and take – so utu is a big part of that dynamic. Mana whenua over the resource – sovereignty – allows the consumer to experience what we do with whanaungatanga and then getting the feedback from the consumer as to what we could do better manaakitanga. Utu is the constant balance of seeking reciprocity . Utu keeps swinging back and forth it becomes the point of satisfaction or balance. Mana used in trade to make an obligation (39:10). Mana and obligation to one up but in a most constructive and positive sense builds value in that exchange but you have to keep the exchange going.*[124]

He also explained that the best way to "*translate or communicate [the importance of rangatiratanga and manaaki in relation to food] into something that the global market or community would understand is imagery – pictures paint a 1000 words*".[125] He went on: "*the first encounter with the product is that it is the real deal and that is authenticity, this comes down to key words – authentic indigenous products. I would not use Māori terms in my marketing strategy because people do not understand it*."[126]

A third, speaking specifically on marketing mahinga kai, noted that:

> *People have to eat but it is about selling a good quality product too. Like anything you want to know that it has come from a good place and that species has had the best treatment possible. That the environment it comes from is healthy and that the company that is selling it is doing something to ensure that. Consumers like myself are looking for that point of difference for that company that is doing something different. About aligning the values of the consumer and the producer. That is what appeals to him. Transparency and reciprocity. Giving back to the community or the environment or both ideally. This is worth supporting.*

A fourth, when asked about marketing strategies, explained that when there came a time to offer or give a kai to someone, there were a couple of things that people associated with it. First is that he is capable and has the skills to go get or gather that kai. The second relates to the fact that he has delivered in the past and that there has been an enormous effort that has gone into delivering excellent examples of that kai in the past, which demonstrates that he is competent. Therefore, when combining these factors together, it generates a sense of confidence among the people that make them willing to accept or receive his kai. Being capable and competent provides confidence.

[124] Interviewee 1.
[125] Interviewee 1.
[126] Interviewee 1.

But it is not just about consumer confidence as the interviewee explains; it also becomes about generating self-confidence. This is where feedback loops become important. It lets him know that what he is doing is worthwhile and that he should keep doing what he is doing. This all part and parcel of developing an ongoing relationship where the recipient understands the values under which he the producer operates and in turn he the producer understands the values that the recipient appreciates. Because of this, producers knows that whatever they give (or sell) will be treated and used in a manner that is consistent to the values that they associates with the product or gift.

The interviewee talked about how much marketing depends on good will - to understand the values that have gone into producing something makes it more valuable. Because of this, relationships are vital to success. If the consumers are confident in him and the products he produces, he explained, then they will recommend him to others, opening his product up to like-minded individuals and groups. This is the key to First Nations success in the global market to generate that feedback loop to develop confidence in both parties – the producer and consumer. This then translates into the confidence to ask for a premium price and the confidence to pay premium price for what then becomes a premium product. The relationship and the track record are vital for First Nations producers. Confidence also in the values that went into making the product are consistent to the treatment and uses of the product by the consumer in a manner that is consistent with the value associated it. Marketing should never detract from the product itself, the interviewee explained, "*someone should be confident in me and what I produce to recommend me*".[127] Finally, he explained,

> *Our values are beneficial to others too. We can utilize our mātauranga to convince someone on the other side of the world to try the version of a food that we produce that could be procured from elsewhere from another supplier but it does not have the same values attached to it like our food does.*[128]

[127] Interviewee 7
[128] Interviewee 1.

# Chapter 5
# Part One Conclusion

From this conceptual analysis of Ngāi Tahu and Māori food set out in this Part One, we can conclude that two fundamental cultural credence attributes underpin Ngāi Tahu food – mauri and mana. The procurement, production, and supply of food is either mauri and mana enhancing or reducing, based upon whether the food emerges from environments and social processes that are underpinned by kaitiaki-inspired actions and relevant observances. In addition, we conclude that a number of closely interrelated cultural credence attributes relate closely to the two fundamental attributes. These are outlined in Table 5.1 below. The table summarises the key values and concepts that underpin each credence attribute. Definitions are provided both from an indigenous point of view and from a Western point of view to assist with understandings and interpretation.

**Table 5.1: The Cultural Credence Attributes of Ngāi Tahu Food**

| Related Value Or Concept | Indigenous Understanding | Western Understanding |
|---|---|---|
| Mana | Consumption of the food enhances the mana or dignity of the person consuming it and that of the atua domain from which it derives. | Consumption of the food enhances the moral standing of the person consuming it and that of non-human community from it emerges. |
| Mauri | Consumption of the food enhances the mauri or vitality of the person consuming it and that of the atua domain from which it derives. | Consumption of the food enhances the health vitality of the person consuming it and that of the non-human-community/ecosystem from which it emerges. |
| Noa | The food is spiritually safe to consume after undergoing a transition from tapu (protected sacred state) to noa (usable sacred state). | The food has been produced, or procured, in a way that observes the intrinsic value and dignity of living and non-living things and is therefore ethically safe to consume. |
| Utu | The food is formed through a relationship of balance between the atua and tangata whenua, which ensures the mauri and mana of each is enhanced. | The food is formed through a health-creating relationship of mutualism, balance, and respect between humans and the ecological systems that support them. |
| Tino Rangatiratanga | The food is produced by manawhenua seeking management over their lands to fulfil their kaitiaki (guardian) obligations to ngā atua. | The food is produced by indigenous people seeking self-determination over their lands and waters to ensure that their non-human relatives (lands and waters) are cared for. |

| | | |
|---|---|---|
| Tūrangawaewae | The food is produced by those that are deeply related and interconnected with non-human whanaunga from which the food emerges. | The food is produced by those who deeply care for place and have had a long enduring connection to its lands and waters. |
| Kaitiakitanga | Food that is produced by those guarding the environmental for future generations of non-human communities, and in turn feeling guarded and supported by them. | The food is produced by those who feel an obligation to act as stewards and guardians of the lands and waters from which the food derives. |
| Manaakitanga | Food that is provided to grow, support, and nurture the mana and welfare of those consuming it. | Food that is provided to grow, support, and nurture the moral standing and welfare of those consuming it. |
| Whanaungatanga | Food from communities that uplift and enhancing kinship ties between people and the environment so that both may flourish. | Food from communities that uplift and enhancing kinship ties between people and the environment so that both may flourish. |
| Kaihaukai | The food comes from methods of exchange that acknowledge the tapu/sanctity of whānau-to-whānau and community-to-community connections and relationships. | The markets and supply chains from which the food derives are built on ethical relationships of care, trust, and respect |
| Self-sufficiency | The food has been sourced by traditional hunter-gatherers who have a strong connection with the ecosystems in which they operate. | |
| Seasonality | The food is produced by those with a history of travel, enterprise, and movement with the seasons. Such food is fresh and wild. | |
| Kinaki | The food is rare and a delicacy produced for special occasions only - such as weddings, tangi (funerals), and mana-enhancing tribal exchanges. | |
| Modern Vitalism | Food that has an attribute of being both contemporary yet produced according to an indigenous wisdom tradition | |
| Cultural Regeneration | Food that is rare and has an attribute of maintaining cultural practices at risk of extinction | |
| Indigenous Investment | Food that has the attribute of supporting the wellbeing and welfare of indigenous people and their lands and water. | |

Part Two of this report explores the cultures and markets that may be interested and willing to pay premiums for these credence attributes. While most of these are given their own section, some are combined where there is significant overlap.

# PART TWO:

# CONSUMER ATTRIBUTES

# Chapter 6
# Global Resonance with Ngāi Tahu Values

## 6.1 Introduction

This chapter examines the cultural resonance between key Ngāi Tahu aspects of food and consumer cultures. It also seeks to identify means by which Ngāi Tahu producers can frame or present their products to enhance the resonance between cultural beliefs, values, and behaviours.

Some caveats should be highlighted. References to different national, ethnic, and particularly religious cultures are not easy to make precise and some latitude is taken. For example, referencing Chinese Taoism also encompasses other ethnic Chinese who are Taoist but do not live in China, and would include Taiwan, Hong Kong, and Malaysia as well as the wider diaspora. Generally speaking, references to religions will include the main country in which they are found or originate but should be taken to mean any PR actioner in any country. The reason for giving the 'main' country is to give producers a target country. Also, there are references to the 'West' and while attempts will be made to define who or what is meant or what particular subset of Western consumer is being referred to, if there is no definition or distinction made then the consumer should be assumed to hold relatively divergent beliefs and values from the Ngāi Tahu producer – that is, modernist, instrumental relationship with nature, individualist, consumerist, etc. Also, while a relatively comprehensive coverage has been aimed for, there has been particular focus on Europe, North America, Australia, China, Japan, and India. The reason for this is that they are all – excluding India – New Zealand's largest trading partners. India has been included as it is one of the largest potential markets in the world. Finally, while some reference is made to other indigenous cultures, there is a far larger cross over with most, and resonances are taken as a given.

## 6.2 Mauri

The idea of a life essence, life force or vital energy is common across a number of cultures – such as the Chinese/Taoist qi or chi, the Japanese ki, the Hindu prana, the ancient Egyptian ka, the ancient Greek pneuma, the Western élan vital, and many various terms across Africa and Asia. Beyers (referencing Turaki, 2010, p. 3) "points out how this power has been given many different names in the past: mana, life force, vital force, life essence and dynamism. Higher mysterious powers, called the mysterium tremendum… fill objects with power that can have either a positive or negative effect on people". While these have different names, many, particularly those from the wider Asian area, are nearly identical in conception. This section outlines the concept of qi and then provides brief descriptions of the others.

Chen and Weng (1998, p. 118) explain that qi "is also known as vital energy that represents various functions of the body. For example, the Qi of a lung indicates the function of lung". There is qi we are all born with, prenatal qi, and postnatal qi. Postnatal qi comes from the food we eat and the air we breathe (Holland 1999).

Food therapy is an essential component of Traditional Chinese Medicine (TCM) (Zou 2016). Different foods "have different effects on "Zang Fu" organs, "Qi" and blood" (Zou 2016, p. 2). Food in TCM has nutritional and functional aspects, as well as providing the necessary substances for life, it is also understood as a form of medication and as a tonic (Zou 2016). Food has five natures: cold, cool, neutral, warm, and hot, separate from physical temperature (Zou 2016). The aim is to remain neutral, so different foods need to be eaten to balance out the qi. Different meats, for example, have different temperatures

– beef, is neutral to warm, pork is neutral to cool, chicken is warm, duck is cool, lamb is warm to hot and venison is hot. This is a simple overview, as there is a large number of rules and guidance regarding food and qi. It suffices to say that there is a strong resonance between the Ngāi Tahu understanding of mauri and the Chinese/Taoist qi.

Japanese ki is similar to qi in concept, as indicated by the terminological similarity. Kumagi (quoted in Gould 1991, p. 195) defines ki as the "fervor of vitality". As Gould (1991, 195) goes on to note, ki "may be heightened, focused, and directed. Ordinary consumer activities such as drinking an energy-giving vitamin drink may be used to manipulate and balance this ki". Ki, like qi, is "an important element in complementary and alternative medicine" (Ohnishi and Ohnishi 2009, p. 175). Likewise, as Oswal *et al*. (2011, 253) write, prana, "the term used by yoga masters of India, seems to be synonymous to qi referred to by the Chinese masters of qigong therapy". Guha (2006, pp. 4-5) refers to prana as 'vital breath'. The relationship between prana and food is mediated by Ayurvedic nutrition, where:

> [F]ood is characterized according to their action on the individual and is determined by their unique qualities: ras (taste), virya (active component or potency), vipak (post digestive effect) and prabhav (pharmacological effect). Hence, food is classified on the basis of its properties and its effect(s) on the digestion. Since taste (Rasa) plays a major role in proper digestion, classification of food and food group are developed according to taste. The six tastes (rasa) of the food constitute: sweet (madhura), sour (amla), lavana (salty), pungent (tikta), bitter (katu) and astringent (kasaya). These six tastes also correspond to the six stages of digestive process.

Some foods are higher in prana, such as fresh vegetables and fruit, wholegrains, oils, or spices. Organic food has more prana, as does local grown produce as the freshness is essential to high prana. This brings up another interesting resonance between Ngāi Tahu and Indian food values that is bridged by mauri, the importance of purity in Indian food, as Ganguly (2017) notes, "[p]urity and pollution have very specific connotations in Hindu dietary customs". In Africa and America, the concept is also common in indigenous cultures (Nalwamba and Buitendag 2017). Binde (1999, p. 50) has shown the power of the 'vital force' to Southern Italians in the contemporary era, noting that "vital force was understood to be something gained through the consumption of food… [and] vital force could be appropriated from animals and human beings".

While the concept of mauri may not seem to have a resonance with traditional Western beliefs, there is a high degree of resonance with those beliefs that are generally labelled 'New Age spiritualism' or 'neo-paganism', hereafter 'New Age'/'New Age spirituality'. New Age will be referenced as a culture here, with the understanding that it represents a segment of Western culture (see Rindfleish 2005). As a practitioner that Houtman and Aupers (2008, 101) interviews explains, "New Age is like a religious supermarket. All aspects of religion… are put together on a big pile and people can choose what is best for them at that moment in time". Running in an inverse parallel with the decline of organised religion – and possibly because of this decline – New Age spirituality has shown a growth across many Western countries in the last decades.

A Pew survey on 'New Age' beliefs found that across all US adults, 42 per cent believe that "spiritual energy can be located in physical things".[129] The same survey found that women are more likely to hold this belief, at 46 per cent versus men at 37 per cent. To be clear, this survey was for all adults, not just those who describe themselves as practitioners of New Age spiritualties.

[129] https://www.pewresearch.org/fact-tank/2018/10/01/new-age-beliefs-common-among-both-religious-and-nonreligious-americans/.

Similarly, referencing the Kendal Project that studied the spiritual beliefs of small town in the Lake District of England, Heelas (2006, p. 50) notes that 82 per cent of respondents agreed with the statement that 'some sort of spirit or life force pervades all that lives'. That said, New Age beliefs systems do have a strong conception of a 'life force' (Heelas 2006; Houtman and Aupers 2008). As Heelas (2006, p. 51) explains,

> [T]he growth of the milieu attests to its vitality—a vitality which owes a considerable amount to the fact that the milieu (in any particular locality and beyond) works by way of shared, mutually confirmed, 'cultural' values, expectations, key terms (like 'spiritual energy' or 'life force'), and key experiences (like 'harmony,' 'inner healing,' or 'holistic wellbeing').

Critically, then, the concept of mauri would have an appeal with New Age spiritualists in Western countries, who are a growing segment of the market. These belief systems also intersect with a range of food trends that will be explored later in the report. More importantly, it seems that mauri, framed right, would actually appeal to a large number of consumers in Western countries who do not see themselves as New Age.

The concept of the animal and plants used for food having a life force, and the people who produced the food as well, can be harnessed by producers in several ways. Regarding animism, Reid and Rout (2016, p. 435) explain that mauri can act as a connection between the producer and consumer, if communicated correctly, stating that "the commodity acts as a hybrid-bridge. It transfers the mauri and encapsulates the relationships of production for the consumer by symbolizing the nexus of connections involved in its production". The mauri of the food's production and the producer becomes the mauri of the consumer. Because mauri is also found across the ecosystem that the food comes from, there is also opportunity for mauri to be connected to whenua, the provenance that creates their identity as Ngāi Tahu as well as the 'clean and green' image that New Zealand has in overseas markets, emphasising the 'purity' of the landscape and oceanscape in which the food was produced.

For those cultures with a remaining traditional conception of a 'life force' in food then the marketing could simply use the term most familiar with that culture to make the connection (or possibly both terms mauri/qi; mauri/ki; mauri/prana; etc.). This would require a degree of research as it is important that the Ngāi Tahu producer does not make inappropriate or undesirable connections. As noted above, different foods have different meanings and it would not be wise to make this association carelessly. Regarding the New Age – and wider Western – segment, Ngāi Tahu producers could use the concept of 'life force' to give their products not just a spiritual element but also to 'relocate' the food so that there is a sense of where it is from and who made it.

## 6.3 Mana

Depending on the scope of the comparison, there are a number of cultures that share similar concepts to mana, though many are historical rather than contemporary. Of all the Polynesian concepts, mana is one that has been the most widely disseminated – if in an adulterated form – with the word, or cognates at least, in many English and other European language dictionaries (Palmer 1946). As Patterson (2000, pp. 230-231) notes "mana is a concept that can find expression in a wide range of cultures…European commentators have linked this aspect of mana to ancient Greek concepts such as the Homeric kudos, a magical power ultimately of supernatural origin, and pneuma, translated as wind, air, breath, or spirit." The European concept of the Divine Right of Kings and East Asian corollaries such as the Mandate of Heaven all have a resonance with mana, as they assert that the monarch is not subject to any earthly authority and derives the right to rule directly from God. As Smith (1957, p. 192) explains:

> [T]he king was looked upon as the 'Son of Heaven', and as such performed certain unique religious functions on behalf of the whole state, and held an unique relationship to the supreme deity. He possessed within himself a latent quality or power, which was, in a measure, latent in all men, but in him to a superlative degree. This mana-like quality of te was continually reinforced as he drew into himself the rich influences from the whole territory over which he exercised suzerainty, and as he held frequent and intimate communion with the spiritual forces which pervaded the universe.

This Chinese concept of te or de has a strong resonance with mana. As Boodberg (1979, p. 32) wrote:

> The standard translation for it is 'virtue,' both in the sense of inherent quality and in that of moral excellence, but with the validity of the traditional rendering somewhat shaken by Arthur Waley's insistence on interpreting it as 'power'. Indeed, it is believed by many scholars that the term originated in the mytho-magical period of Chinese speculation when tê was conceived as a kind of mana-like potency inherent in substances, things, and human beings, a potency which, on the one hand, made them true to their essence, and on the other, made possible their influencing of other entities. It appears often as if it had been imagined as a kind of electric charge permeating the thing in question, waxing or waning in accordance with some mysterious law, and capable of being transmitted, in the case of living beings, from one generation to another. Contrary-minded students of ancient Chinese philosophy dispute this interpretation as rather narrow and possibly anachronistic, and point to the fact that tê had early acquired, at least in Confucian literature, ethical connotations close to our "virtue," that is, as moral, and only rarely amoral or immoral, efficacy. They find, therefore, no quarrel with rendering tê, almost invariably, as 'virtue'.

While Patterson (2000, p. 230) sees power as useful component of the definition of te/de, he goes on to explain that looking "in detail at the Māori mana and at the Chinese de, we do find some close parallels. For example, in the analysis of de provided by David Hall and Roger Ames, when a person of 'pervasive' de (a Taoist 'real person') 'extends himself to become coextensive with the natural direction of his context, he becomes an increasingly influential 'transformer' of things,' not just in his human environment but in his natural environment as well. This is exactly what a person of pervasive mana does". Patterson (2000, p. 230) writes that a "recent Japanese use of the concept [mana] is found in the work of Ogawa Haruhisa, who applies the idea that we can gain mana by taking responsibility for the less fortunate to the relations between Japan and its southern neighbors".

The Indian concept of shakti or 'spiritual energy' – though also the personification of divine feminism – also has similarities to mana (Wadley 1977). As Wadley (1977, p. 139) writes, shakti is "neither moral power nor physical power, but both. Shakti is a result of morality or right action which is transformed into an embodied shakti, which results in a transformed physical state (bodily substance). A being is, a one and the same time, spiritually powerful and physically powerful, and these two facets of his identity are not separate but always coexistent." Every being in the universe has a degree of shakti, though some have more shakti than others – particularly the gods. All actions towards other beings are guided by shakti (Wadley 1977).

The baraka of North Africa also has several similarities to mana (Palmer 1946, 269-270):

> Baraka is at once the holiness or sacredness attributed to Chiefs and Saints and to natural objects and places, and it is also at the same time the animated principle or soul-substance poured out in sacrifice, or it may be employed to convey an additional curse. It may be the benign virtue of a sacrificial feast and the source of life-giving potency. When baraka is strong and unpolluted, the crops are abundant, the women give birth to living children, the country is prosperous in every respect. When baraka is weak, drought and famine result and the fruit falls from the trees before it is ripe.

Like mana, baraka is higher in those with greater prestige (Palmer 1946).

The Aztec notion of teotl is often translated as mana (Dibble 1961). In fact, the currency of mana as a term in anthropology meant it was used as framing concept for early discussions of teotl (Bassett 2015). While the manifold differences between the two have been examined more recently, there are still many similarities between the two concepts. Contemporary definitions of teotl are of it as "single, dynamic, life-giving, eternally self-generating and self-regenerative sacred power, energy or force", it is "properly understood as ever-flowing and ever-changing energy-in-motion" (Ortega-Villaseñor and González 2017, p. 182). It has similarities to mauri as well as mana. While modern-day Mexico is dominated by Catholicism, there has been a growing renaissance of pre-colonial beliefs across the country (often referred to as Mexicanidad) and a pronounced syncretism, as evidenced by the resilience of the Day of the Dead (Torres 1996).

## 6.4 Noa

Beliefs identical to the concept of noa, or food that remains sacred but has been made safe to eat, are not very common. Far more common is the opposite concept, of a mundane or material food being converted into a sacred food. This all needs to be placed within the critical context that the various cultural rules around food are incredibly complex and often share some similarities whilst also having stark differences. Any statements made here are very general and due to both the inherent complexities and the potential risks of getting it wrong, any use of noa to international audiences needs to be carefully calibrated.

Regarding the reverse process where something mundane is made sacred, one of the best known is the process of transubstantiation in Catholicism, where the elements used to celebrate the Eucharist, namely the wafer and wine, are changed into the body and blood of Christ, respectively. Hinduism, as another example, also sees food as mundane before being turned sacred. King (2012, p. 450) explains:

> In Hinduism generally the preparation of food, the offering of food to God, and the eating of the food offered can become a powerful devotional meditation. Many Hindus believe that if food is offered to God with devotion before eating, not only are they not implicated in the karma involved in acquiring the food, but they can actually make spiritual progress by eating the offered food. Their devotion, and God's grace, subtly transforms the food offered from material nutrition to spiritual mercy or prasada.

For Hindus, food is material and is made sacred before consumption. The term prasada means "both 'happiness' and 'sacred Hindu food' (among many other things)" (Pinkney 2020, p. 415). That said, there are some similarities, as for Hindus "food is evaluated as being 'fit to eat' (bhojya) or 'not fit to eat' (abhojya) relative to any given eater's ritual status" (ibid).

The other binary pairing relating to food is bhaksya/abhaksya or permitted and forbidden food (Olivelle 2018). While bhaksya/abhaksya food cannot change in status, abhojya refers to food that is normally permitted but due to some circumstance – such as being tainted by a hair or touched by an impure person – has become unfit for consumption (Olivelle 2018). While for Māori it is the food and the person that can be tapu or noa, for Hindus the focus is on the status of the person, "people at the upper end of the ritual spectrum are subject to the most restrictions in being fed" (Pinkney 2020, p. 415).

The Islamic concepts of halal and haram share some similarities to tapu and noa though they are far from being congruent. There are a number of similar binaries in Islam, including halal/haram, makruh/mandub and taharah/istihalah. The best known of these, halal, means permissible or lawful while its opposite, haram, means forbidden (Kamali 2003). While Islam shares the capacity for the food itself to be either permissible or not permissible, it works in the opposite way to the tapu/noa binary. Permissibility is the "basic norm in all things unless there is evidence to establish a prohibition" (Kamali 2003, p. 3).

Of particular interest is the concept of istahalah, as Kamali (2003, p. 2) explains, "the little known but important principle of substance transformation or (istihalah), which explains the conversion of haram into halal due to internal chemical changes that removes the haram element". While the concept of istihalah is defined "as a process of purification or cleaning of substance from unclean sources" (Kashim *et al*. 2018, p. 756) the fact that there is a process of changing something from inedible to edible does provide a proximate match to the noa concept.

While there are some similarities, the differences and the potential consequences of potential misunderstandings would suggest that using noa to sell food to other cultures would need to be done very carefully and with conscientious research.

## 6.5 Utu

Several cultures value balance, harmony, and reciprocity in interactions. As well as the many animist societies, several Asian cultures see harmony in relationships as critical. Confucianism, Taoism, Shintoism, Hinduism, and Buddhism all have the cardinal value is harmony (Shao and Qu 2007; Xiaohong and Qingyuan 2013).

"Confucianism", as Xiaohong and Qingyuan (2013, p. 60) explain, "puts weight on 'harmony but not sameness', 'harmony without mindlessly following others' and 'harmonization of various kinds of people by observing rituals of propriety'". This value is called ho in Confucian thought. While this is mostly focused on inter-human relationships, there is still a correspondence to the Māori belief in utu. This cardinal value of harmony means "Chinese interpersonal relationships are characterized by emphasis on group orientation, the Doctrine of the Mean, giving or making face for others, guanxi (social connections), and reciprocity" (ibid). The Confucian focus on ho is critical to Chinese food culture, "where harmony, balance and perfection used to be valued in traditional Chinese cooking" (Liu et al. 2014, 266).

Hinduism also places a premium on harmony and balance, though this is expanded to include human-nature relationships as well. The term that best encapsulates Hinduism's focus on harmony and balance is dharma. "The symbolic relationships", notes Womack (2009, p. 209), "expressed in the pantheon of Hindu deities, as well as in the Hindu myths and legends, reflect the importance of maintaining harmony in the universe as well as harmony in human relationships".

A key part of this balance in relationships is through sharing food, connecting utu with manaakitanga. As Womack (2009, p. 210) explains, for Hindus "[f]ood is energy. In preparing and sharing food, we participate in the life-giving energy of the universe". She continues (Womack 2009, p. 211), "[w]hen we share the experience of choosing, preparing, and consuming, good food, we promote harmony in our social relationships. If we extend the paradigm of Ayurveda further, by choosing, preparing, and consuming, good food, we promote harmony in our bodies and in the universe."

Japanese culture also places a primacy on balance and harmony, or wa. Balance between people and between people and nature is a core component of Shintoism. However, as Bernard (U.D.) notes, this 'balance' is one tipped in favour of human control over nature. Or rather, 'nature' "is valued not as 'wild nature,' but instead as 'humanised' or 'culturalised' nature. In Japan, nature is "cultivated" by culture. Nature is idealised in its 'cultured' forms". Thus, while the overarching focus on balance is similar to Māori culture, the way that this intersects with balance with nature is quite different. As Bernard (U.D.) goes on to note, this definition of nature explains:

> [T]he destruction of the natural environment [which] gradually increased to such proportions that the archipelago came to stages of severe environmental degradation several times, only to be barely saved by systematic, usually centrally managed, programs of reforestation. Indeed, it is an irony that a

> country in which the boundaries between culture and nature are so fluid should have undergone such a degree of environmental degradation.

As Leung *et al*. (2002, p. 202) explain "the word, 'wa,' connotes on the one hand a sense of balance and harmony; on the other, the proper way to reach a goal, i.e., while harmony is important, it, as well as other goals, must be pursued in an appropriate manner". One of the main functions of Shintoism is the maintenance of wa. The concept of wa is critical to food, "Traditional Japanese food is known as "washoku" in the land of the rising sun. "Wa" translates into peace or harmony and "shoku" means meal".[130]

## 6.6 Tino Rangatiratanga and Tūrangawaewae

This section will focus on both tino rangatiratanga and tūrangawaewae, first looking at the concept of whakapapa as this underpins both these connections with the land.

*Whakapapa*

Just as most indigenous cultures are animist, almost all share the same kin-centric view of Nature that is embodied in the Māori concept of whakapapa (Reid and Rout 2018; Salmon 2000). Beyond these cultures, there are many others that have a similar view of their relationship with Nature. As Huckle and Martin (2001) note, the conception of Nature as either a 'body', often as a 'mother', or as 'kin' is extremely common across cultures. The Hindu view of this relationship has much in common, as Coward (2006, pp. 411-413) writes:

> Hindus see the surrounding world as a ''Thou'' of which they are an interdependent part. Humans and their society are imbedded in nature and dependent upon cosmic forces. Individual human life is experienced as a microcosm of the universe…the universe is God's body, of which we humans, along with everything else in nature, are but a part. The essence of earth, air, water, the tree, cow, you and me is the same divine spirit manifesting in different forms… In the Hindu scriptures the earth is referred to as a great goddess who nourishes and sustains all creatures… Indian philosophers developed the above worldview affirming the interconnectedness of humans, animals, plants and even matter into what is called Karma Theory… Karma Theory rejects the dualism of nature and humans, and maintains… that there is no radical separation between humans and other forms of beings (animals, plants, air, water, atoms of matter). Instead, a radical continuity is proposed.

Similarly, the Confucian understanding is similar, as the eleventh century philosopher Zhang Zai (quoted in Overmyer 1998, p. 58) wrote:

> Heaven is my father and Earth is my mother, and even such a small creature as I find an intimate place in their midst. Therefore that which fills the universe I regard as my body and that which directs the universe I consider my nature. All people are my brother and sisters, and all things my companions.

While the standard Western view has limited resonance with the Earth Mother or kin-centric conceptions, there are both historical antecedents and contemporary changes that provide some support to this core Ngāi Tahu belief. Regarding the historic, both Greek and Roman societies – in many ways the philosophic foundations of modern Western society – believed in an Earth Mother, called Gaia and Cybele, respectively. In his book on Mother Earth, Gill (1991, p. 2 and p. 6) states there "has been uncontested agreement… that Mother Earth is a goddess widely known since great antiquity".[131]

[130] https://www.thefoodbridge.org/index.php/72-traditional-japanese-food-the-art-of-balance.

[131] Gill does call into question the veracity of this as applied to Native Americans, but the references to wider cultures' beliefs are valid.

Likewise, Singh (2007, p. 2) explains that the most "ancient and conceptual[ly] complex… worldview was the belief that the Earth was a great Goddess, known by many names like Hekate, Eurynome, Demeter, Rhea, or Gaea or Ge "Mother Earth" — the Greek goddess, "Geb" or "Isis" in ancient Egypt, "Go" in ancient India". Generally speaking, the Mother Earth framing of the planet and its supporting ecosystems (often personified as kin) is common beyond the 'indigenous' sphere. The concept of 'Mother Nature' remains fairly current across many indigenous, African and Asian cultures and, in some cases, beyond. In the West, while 'Mother Earth' as a deeply rooted belief is largely confined to New Age spiritualists and neopagans, there are a number of recent developments that come into line with the wider conception of whakapapa.

Firstly, biology has increasingly shown the interrelatedness of all life. For example, the 'tree of life', emerging from evolution, taxonomy and, later, DNA. The Western conception of humans, as influenced by Christianity, long held that humans were substantively different from other life, that they were special. Starting with Darwin, this view has been increasingly challenged and eroded to the point where only fundamental Christians still believe it as factual. In most Western countries, outside the United States, where religious belief has been on the decline the relatedness of life on Earth is generally fairly widely accepted (Hecht 2006). As Leopold (1949, p. 109) wrote in his highly influential and widely cited book A Sand County Almanac:

> It is a century now since Darwin gave us the first glimpse of the origin of species. We know now what was unknown to all the preceding caravan of generations: that men are only fellow-voyagers with other creatures in the odyssey of evolution. This new knowledge should have given us, by this time, a sense of kinship with fellow-creatures; a wish to live and let live; a sense of wonder over the magnitude and duration of the biotic enterprise.

Aldo Leopold is "often held up as a key voice in the emergence of the contemporary awareness of concern for disconnection from nonhuman nature" within Western culture (Beery *et al*. 2015, p. 8840). There have been a number of developments that have reinforced the kin-centric view since Leopold, as Beery *et al*. (2015, p. 8838) state, the "environmental connectedness theoretical perspective, represented by a long list of scholarly, empirical, and practical' connectedness to nature' efforts, represents one way to reconsider people and nature that opposes a dichotomized framing of nature-culture and considers a more relational perspective". For example, the famous biologist E. O. Wilson's biophilia hypothesis goes as far as to argue that humans possess "an innate need to affiliate with other living beings" (Nisbet *et al*. 2009, p. 716). The "understanding of our interconnectedness with the earth and sense of inclusion in nature is often referred to as our ecological identity or ecological self, a term coined by Arne Naess (1973)" (Nisbet *et al*. 2009, p. 718). Nisbet et al. (2009) go on to propose a new construct of 'nature relatedness', which "encompasses one's appreciation for and understanding of our interconnectedness with all other living things on the earth" (ibid).

A second way in which modern science has trended towards the indigenous perspective is through the Gaia hypothesis – named after the Greek Earth Mother – first propounded by NASA scientist James Lovelock. At its most basic, this concept argues that living organisms interact with the inorganic surroundings on Earth in such a way as to create a synergistic and self-regulating complex system that maintains the conditions for life on the planet. There are weak and strong forms of this hypothesis (Kirchner 2002, 393).

> [The] weak forms of the Gaia hypothesis hold that life collectively has a significant effect on Earth's environment, and that therefore the evolution of life and the evolution of its environment are intertwined ('Influential Gaia'), with each affecting the other" while the "the strongest forms of Gaia depart from this tradition, claiming that the biosphere can be modeled as a single giant organism ('Geophysiological Gaia') or that life optimizes the physical and chemical environment to best meet the biosphere's needs ('Optimizing Gaia').

While there has been much debate about the scientific accuracy of the Gaia hypothesis, the important point here is its power as an idea. As O'Riordin (2004, p. 129) explains, "Gaia is more important as a unifying idea than as a science". Midgley (referenced in O'Riordin 2004, p. 129) believes that Gaia is the next big idea, a twenty-first century outlook on par with Darwin, Durkheim, and Marx. Certainly, as Tickell (2004) notes, the choice of the name itself has been as problematic as it has been powerful, putting the more scientifically minded off while attracting the more 'spiritually' inclined. Tickell (2004, pp. 223-224) explains:

> The choice of the Greek goddess Gaia rather than of some Greek-derived scientific polysyllable, or worse some acronym, was a risk. On the one hand, it was just too attractive for those in search of a new religion at a time when traditional religions were breaking down; on the other, it was just too repulsive for those who liked to hide their science in coded vocabulary. The result was that some New Age travelers jumped aboard, and some otherwise sensible scientists jumped onboard. This is probably still the case. But as a theory, Gaia is now winning.

Bond (2013) covers the same territory in his *New Scientist* article, asking: "Why did the public love James Lovelock's Gaia theory so much while scientists hated it?". The key point here is the overwhelming popularity of the hypothesis with the general public – and as Bond notes – beyond the 'spiritualist' segment. Bond (2013) explains that Lovelock's first paper on the topic "prompted invitations to write a book from 21 publishers" and that the "idea that our planet was somehow alive found favour with philosophers, poets, writers, environmentalists, pagans, churchgoers and many others. Lovelock became a celebrity".

Ruse (2013, p. 36) too notes that the "negative reaction by those who might have been most likely to respect and appreciate Lovelock and Margulis was balanced by a public appreciation and embracing of Gaia". Ruse (2013, pp. 36-37) goes on to say that the Gaia hypothesis "caught fire and became somewhat of an overnight sensation… [and] even thirty years later, the popular interest in Gaia remains strong". While a simplification of his argument, Ruse (2013) believes that a major part of the ongoing public interest in the hypothesis is because of its connection with the widespread and deeply rooted conception of 'Mother Earth'. Whatever the reason, what this suggests in terms of the project is that the concept of whakapapa, framed properly, can also tap into this undercurrent across cultures.

More generally, the concept of Mother Earth, or at least the term and the wider associations that might have, seem to have a growing resonance. Several states have enshrined the natural world's rights; in Bolivia equal rights were given to Mother Earth in 2011, while similar legislation has been passed in Ecuador and municipalities of the United States (Espinosa 2015; Vidal 2011). As Bolivian Vice-President Alvaro García Linera explained when the law was enacted, "Earth is the mother of all" (Vidal 2011).

There have been a number of initiatives at the international level as well, in 2009 the UN's 'Earth Day', which had been celebrated since 1970, was changed to the 'International Mother Earth Day', after a Resolution was introduced by Bolivia. General Assembly President Miguel d'Escoto Brockmann stated: "International Mother Earth Day promotes a view of the Earth as the entity that sustains all living things found in nature. Inclusiveness is at the heart of International Mother Earth Day; fostering shared responsibilities to rebuild our troubled relationship with nature is a cause that is uniting people around the world".[132]

Another example is that during discussions for the recent Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) framework disputes about the use of concepts such as 'ecosystem services' emerged, with non-Western delegations, particularly Bolivia, seeking to have

[132] https://www.un.org/ga/president/63/statements/motherearth220409.shtml.

different ways of viewing nature included (Borie and Hulme 2015). Ultimately, the framework included references to, amongst other aspects, Mother Earth. Around the same times as the IPBES initiative, there was a proposal to the UN for the Universal Declaration of the Rights of Mother Earth (UDRME) (Espinosa 2015). This fits in with a number of other attempts to broaden and deepen the sustainability/environmental cause using the concept of 'Mother Earth' (Stead *et al*. 1994; Swanson 2015).

A third way is the New Environmental Paradigm (NEP), which ironically owes much to animism, the oldest environmental paradigm (Dunlap and Van Liere 1978). The NEP "aims to measure the adherence of individuals to an 'ecological worldview,' which, in contrast with the Dominant Social Paradigm (DSP), acknowledges 'the fact that human societies depend on their biophysical environment for survival'" (Hedlund-de Witt 2012, p. 75). As the creators of the NEP, Dunlap and Van Liere (1978) outline, the DSP begins with the assumption that, unlike other species, humans are exempt from ecological constraints, whereas their 'new' paradigm calls attention to the fact that human beings are governed by the same physical laws that regulate the growth and development of all other species, rejecting the 'exemptionalist' perspective on human societies. Key to this NEP is conceptualisation that humanity does not have a right to rule over the rest of nature, pushing an anti-anthropocentric position.

The NEP has been extremely successful, it is the "most widely used scale for exploring environmental worldviews in the past few decades" (Hedlund-de Witt 2012, 75). As Dunlap (2008, p. 3) himself discusses, thirty years after its conception, the NEP "has become the most widely used measure of environmental concern in the world and been employed in hundreds of studies in dozens of nations". He does also note, however, "the failure of an ecological worldview to become institutionalized in the United States, stemming from intense opposition to it since the 1990s" (Dunlap 2008, p. 3). That this NEP, however old, has become the most popular means of exploring environmental worldviews suggests there is a wider resonance regarding the kin-centric view of nature, as long as it is framed in the right way.

Much of the marketing literature is focused on the 'anthropomorphism' of nature, and while this is a cynical take on the indigenous worldview it still offers some insights. Anthropomorphising nature is even viewed as a means of motivating sustainability. Tam (2014) in his study found that when nature is anthropomorphized, people feel more capable of understanding, predicting, and effectively changing the natural world, they are motivated towards sustainability. While ideas of a kin-centric reality have not really permeated the marketing sphere, the concept of 'Mother Earth' has, though in a variety of guises. In their research on brand narratives and sustainability, Ourahmoune *et al*. (2014) found two distinct and divergent narratives. The first was focused on the Cartesian control of nature, while (idem, p. 319):

> The second discourse involves brands that convey the narratives of Mother Nature—beautiful, caring, safe, and well intentioned—with a sense of proportion and a horizontal relationship between mankind and nature. Cooperation is emphasized as the key element in environment-mankind relationships. Gaia, personifying the beauty of creation, is conveyed by brand discourses that emphasize values traditionally depicted as feminine, leading to protection, nurture, equality, and a sense of justice.

For Ngāi Tahu producers, the kinship with both the whenua and moana (land and sea), flora and fauna, serves as a powerful means of reinforcing their environmental and ethical credentials to likeminded consumers. By emphasising the sense of kin with where and what they farm or fish or grow, the producer can make assurances about how they care for the land, sea, plants, and animals that will make intuitive sense with any consumer who has an implicit understanding of what whakapapa means. While marketing this kinship to other indigenous cultures, as well as Indian and Chinese consumers who hold similar beliefs would not require much translation, achieving the same outcome with Western consumers who have an affinity with this belief may require greater modification.

Terms like 'family' or 'kin' would not be that resonant, but the broader concept of Mother Earth and the interrelated nature of all life on Earth would be more easily communicated to these consumers. Ngāi Tahu producers can use their kinship with nature to not only reinforce their strong environmental and ethical values to consumers but also to make help with provenance and authenticity of their products (see below for discussion on these topics) (Reid and Rout 2016a). They can emphasise the importance of their kinship with nature as a way of reinforcing not just where the food has been produced but reassuring the consumer that this information is accurate.

*Tino Rangatiratanga*

This section focuses on cultures that would have an affinity with seeking self-determination over their lands and waters. One international concept that has a strong similarity is the food sovereignty movement (FSM), though as will be outlined there are some issues with this in terms of exporting food. Beyond FSM, it is also felt that countries with strong food cultures would find tino rangatiratanga appealing. To be clear, this food culture would need to have a long history and to be relatively homogenous – this precludes places like the US, where the food culture is a modern hybrid. It should also be noted that the subculture of alternative food networks and short food supply chains discussed below also share a lot of similarities to these two beliefs.

Put simply, it is likely that this concept would find a near universal appeal. There are few peoples who would not want control over their own land and food. That said, there will be places where these concepts would have greater resonance. Firstly, it is probable that any country that has been colonised would have a far greater appreciation of the importance of tino rangatiratanga as a concept. Food, as Leitch (2003, p. 441) explains, has "been central as cultural symbols in colonial and post-colonial nationalist struggles". The food sovereignty movement has strong roots in Latin America, suggesting that these cultures would have an appreciation of tino rangatiratanga (Dunford 2017). The concept of food sovereignty has even been added to the national constitutions of Venezuela, Ecuador, Bolivia, Mali, Nepal and Senegal (Soper 2016).

However, there is one obvious major issue with food sovereignty and Māori producers looking for export markets: food sovereignty implies a high degree of self-sufficiency, which runs counter to food trade. Edelman *et al*. (quoted in Soper 2016, p. 539) refer to trade as a "sticky issue for food sovereignty", going on to ask "[w]hat do we make of the millions of smallholders who produce agricultural commodities for export?". Even the most self-sufficient people, however, would likely accept some form of food trade and it seems they would be more likely to look for other actors with similar values. While food sovereignty and food export might seem like incompatible objectives, there might be more crossover than first appears.

While some elements of the food sovereignty movement have an extreme position on trade, there are many who have a more flexible approach. In particular, those who are already involved in trade. As Soper (2016, p. 539) notes, "[p]easants whose livelihoods are dependent on export markets do not necessarily want to exit international markets; they want to integrate more equitably into the global system". While the intellectual wing of the FSM is, to some degree, ideologically blinkered against trade, increasing research shows that the people it claims to represent are interested in international trade (Soper 2016). It would seem that the very groups of food sovereignty participants could provide ideal alternative trading networks, if the connections were made in the right way. There is a resonance between FSM and fair trade (discussed below in section 5.10).

Tino rangatiratanga could find a strong audience in China. In the 1980s, after decades of collectivised agriculture, Chinese farmers "undertook family farming, independent marketing of livestock and produce, and other individualistic "deviations" from rigid socialism" whilst simultaneously, food insecurity has gone

from 40 to 10 per cent (Lin 2017). This relatively recent and widespread increase in independence and control over agriculture would likely mean that tino rangatiratanga was a highly translatable concept for many Chinese. Also, Confucianism shares a similar outlook to a connection with land as that encapsulated by tūrangawaewae. As de Bary (quoted in Lin 2017, p. 248) explains, "Chinese and Confucian culture, traditionally, was about settled communities living on the land, nourishing themselves and the land. It is this natural, organic process that Confucian self-cultivation draws upon for all its analogies and metaphors". "Confucianism", Jenkins (2002), explains, "promotes an 'anthropocosmic' social ecology with a spiritual dimension of embeddedness in the universe". China is, of course, beset with the same environmental issues caused by its massive population as India is, but this does not reduce the similarities of the concepts.

European cultures all have very strong local food cultures that are rooted in self-determination. For example, the EU's Common Agricultural Policy "is undergoing a gradual transformation from a strongly centralized, productivist sectoral policy towards a more decentralized model in which a multi-functional agriculture is a key element of an integrated, more pluralistic approach to rural development" (DuPuis and Goodman 2005). This change symbolises the growing desire and pressure for a more locally oriented food system. In a study of food habits across Europe, with 20,0000 respondents, it was found that the Germanic and Dutch/Flemish regions maintained the strongest focus on their traditionally oriented food culture, with Portugal and Spain also ranking high in this area while the UK had the lowest scores (Askegaard and Madsen 1998).

*Tūrangawaewae*

This section looks for cultures who deeply care for place and have had a long enduring connection with their lands and waters and would find the concept of tūrangawaewae resonant. The concept of 'place attachment' will be used to examine tūrangawaewae (Budruk *et al*. 2009). Place attachment is "the environmental psychologist's equivalent of the geographer's sense of place. When used broadly, it refers to the positive emotional bonds that develop between individuals and their environment" (Brown and Raymond 2007, p. 90). Of particular use, place attachment is often broken up into two key components, place identity and place dependence (Williams and Vaske 2003).

"Place identity (an emotional attachment)", as Williams and Vaske (2003, p. 831) explain, "refers to the symbolic importance of a place as a repository for emotions and relationships that give meaning and purpose to life". "Place dependence (a functional attachment)", they continue, "reflects the importance of a place in providing features and conditions that support specific goals or desired activities" (ibid). It is taken that while tūrangawaewae is both, those who score higher on the place identity scale are more likely to have an affinity with the Ngāi Tahu concept. Place attachment, and more particularly place identity, is often a key determinant in predicting levels of environmental concern (Anton and Lawrence 2014).

At its most basic, almost everyone will be able to connect with tūrangawaewae to some degree. As Relph (quoted in Mazumdar and Mazumdar 1993, p. 231) notes, "there is for virtually everyone a deep association with and consciousness of the places where we were born and grew up, where we live now or where we have had particularly moving experiences. This association seems to constitute a vital source of both individual and cultural identity and security." Of course, this needs to be moderated somewhat. While generally true, for those living in urban spaces and those who have moved around in their life, this connection would likely be far less than for a group of people who live amongst the land and have done for a long time. Both of these suppositions have been shown to result in lower place attachment and place identity (see Lewicka 2011 for both, Anton and Lawrence 2014 for rural versus urban and Hernandez *et al*. 2007 for transience).

The EU (2018) conducts an annual 'Eurobarometer' analysis of attachment. Regarding place attachment – not split into identity and dependence – to city/town/village, which is felt more indicative than to state, the member states were ranked from lowest to highest: Netherlands, Malta, France, Sweden, Belarus, Lithuania, Luxemburg, United Kingdom, Finland, Estonia, Romania, Czech Republic, Germany, Slovenia, Denmark, Hungary, Spain, Latvia, Ireland, Bulgaria, Italy, Slovakia, Poland, Cyprus, Austria, Portugal and Greece.

As well as the large scale EU study on place attachment, a number of smaller ones have provided some insights. Dallago *et al*. (2009) found that those Norway, Sweden, Denmark and Macedonia had the highest place attachment, again not split into identity/dependence, while Latvia, Estonia and the UK had the lowest. Garcia-Martin *et al*. (2018), studied place attachment in six small villages across Europe. They were ranked, from lowest to highest: Colmenar Viejo (Spain), Börje (Sweden), Peipsiääre and Alatskivi (Estonia), Obersimmental (Switzerland), Modbury (UK), and Gera (Greece). This does provide some insight, with places that rank higher on place attachment possibly having a closer affinity with tūrangawaewae.

In Australia, a large survey found that residents shared similar scores for both place identity and dependence (Brown and Raymond 2006). A similar study done in another region of Australia had similar results, with a higher identity than dependence (Raymond *et al*. 2010). While these findings suggest that there is an element of tūrangawaewae that could resonate, it does bring into question the utility of place attachment as it is unlikely that without some clever framing many Australians would be attracted to the concept of tūrangawaewae. This is not to say that what could be simplistically generalised as urban, liberal elites would not be interested but rather the wider populace in general. Rather than discrediting place attachment, it suggests that it is a starting point rather than a hard and fast guide.

In the US, Williams and Vaske (2003) actually found that national park users had a higher place identity than dependence. Another study looking at place attachment in a rural village in the US found that the natural ranked highest, followed by rural and then cultural places (Lokocz *et al*. 2011). However, a third study that looked at different key national park sites found that dependence was higher than identity (Backland and Williams 2004). While these studies are not generalisable across the US population it does show that there could be some appeal in the concept of tūrangawaewae in certain segments of the populace, though the same doubts of accuracy arise as with Australia.

China has experienced one of the most significant urbanisations in history, with millions switching from a rural to an urban reality every year since the nineteen eighties (Liu *et al*. 2019). This creates complexities in determining place attachment in China as while the rural-urban divide will still play a role, it is now more likely that many of the rural people who would have a closer resonance with the concept of tūrangawaewae are now city dwellers. While a generalisation, place attachment for urban populace in China is far lower (idem). This is particularly true for those internal migrants who have urbanised, though these migrants often have a stronger place identity for their original home (Qian and Zhu 2014). Another study found that those still living in villages had an 'average' place attachment compared to other similar scaled places around the world, but that those who had been dislocated or had experienced significant transience had even lower place attachment (Liu 2018). There seems to be a relatively low place attachment in China due to large scale movement that decreases attachment, plus a low average place attachment of those who have stayed in their traditional areas.

Perhaps most importantly, however, those with low levels of felt attachment to place may be looking for products that can generate this sense of belonging to overcome experiences of modern alienation (Reid and Rout, 2016a). Consequently, communicating tūrangawaewae attributes of these products to alienated consumers may resonate. This would apply to those cultures and countries that demonstrate

low-levels of place-attachment, or where rapid urbanization has taken place generating feelings of displacement and alienation.

## 6.7 Kaitiakitanga

The value of kaitiakitanga, and the underpinning justifications that motivate it, is shared with many indigenous peoples around the world. It is an ethic that emerges out of the animist worldview and the importance of viewing Nature as kin. There are, of course, a wide variety of sustainability values and motivations across different cultures. At the most basic level, it is assumed that any consumer with a desire for 'sustainability' in any of its forms would have some measure of resonance with the Ngāi Tahu value of kaitiakitanga, as long as it was framed correctly. This does however require some further investigation. While the similarity between Ngāi Tahu and other indigenous cultures is clear (Beckford *et al*. 2010; Ross *et al*. 2016; Salmon 2000), exploring whether other cultures share similar values and motivations requires an expansion of what kaitiakitanga means. A useful way of viewing it is as an ecocentric or intrinsic sustainability value and motivation, where nature is conserved because of its inherent worth and because people care about it, in contrast to the anthropocentric or instrumental perspective, where nature is conserved for its worth to humanity – ecosystem services etc. – and because people care what it can provide for them (Reid and Rout 2018).

There have been numerous surveys of sustainability values and motivations across cultures. A "2000 World Values Survey found that 76 per cent of respondents across 27 countries said that human beings should 'coexist with nature,' whereas only 19 per cent said they should 'master nature'", which is effectively an ecocentric position dominating an anthropocentric one (Leiserowitz 2006, p. 421). Similarly, van den Born *et al*. (quoted in Hedlund-de Witt 2012, p. 76) provide an overview of the various research done on the question of ecocentric versus anthropocentric values, concluding that "it appears that the general public in Europe and the USA has developed a strong general 'biophilia,' or nature-friendliness. One indicator of this is that in quantitative research, 70 to 90 per cent of the population recognizes the right of nature to exist, even when it is not useful to humans in any way".

In their analysis of indigenous narratives and the Earth Charter, an international declaration of the fundamental values and principles considered useful by its supporters for building a just, sustainable, and peaceful global society, Cutanda and Murga-Menoyo (2014, p. 32) found that "a sound coherence between the texts of the mythical stories analysed and the epistemological principles, values and attitudes that we find in the Earth Charter". A recent survey of rural Chinese consumers found that 44.5 per cent strongly agreed with the statement that 'plants and animals have as much right as humans to exist', with 33.8 per cent agreeing, 15 per cent neutral and the remainder disagreeing or strongly disagreeing (Wang *et al*. 2014). This was the strongest agreement across all 12 environmental values, with the most anthropocentric values scoring less than 17 per cent strongly agree. While the concept of kaitiakitanga may not translate as well into every culture, it seems that the ecocentric motivations underpinning itself may have a resonance across a number of cultures. Furthermore, in recent years these issues have become increasingly salient (Van Passel 2010).

One example of this is 'food miles', a concept that "measure[s] the distance that food travels from farm gate to plate" (Van Passel 2010, p. 4). As Kemp *et al*. (2010, p. 504) note, the "'food miles' concept is based on the rather simplistic notion that the further food travels between farm and plate, the greater must be its negative environmental impact". In the 2000s, food miles became a "cause celebre for environmental activists" (ibid). However, as well as highlighting the growing awareness of the sustainability of food transportation, the food miles concept also reveals some of the problems, particularly for Ngāi Tahu producers and others located far from larger markets. Food miles, with its focus

on transportation, ignores both the difference between sea and air freight and the total footprint of any food. A number of scientific studies have shown "that the net energy inputs are lower for New Zealand meat exports than the local equivalents" (Roche 2012, p. S69). Saunders *et al*. (referenced and quoted in Kemp *et al*. 2010, p. 505):

> [C]onducted a life cycle assessment of some key New Zealand food exports to the UK. They specifically analysed dairy products, apples, onions and lamb produced in New Zealand and exported by ship to the UK and compared these to the next best alternative source for the UK market. It was concluded that ''The energy used in producing lamb in the UK is four times higher than the energy used by NZ lamb producers, even after including the energy used in transporting NZ lamb to the UK. Thus, NZ CO2 emissions are also considerably lower than those in the UK'.

Kemp *et al*. (2010, p. 511) note that:

> … country-of-origin related reasoning is well down the list of considerations that motivate these consumers when they are purchasing food products in supermarkets. Furthermore, those who do place high value on country-of-origin, expressed a variety of reasons for why they prefer British products. Only 3.6 per cent of the total sample of intercepted shoppers indicated that ''less harmful for the environment'' was their primary or secondary motivation for choosing British products rather than imported.

However, for Ngāi Tahu producers who may be wanting to focus on emphasising the sustainability of their products, the food miles concept may be problematic, even if it is not always factually correct.

There have been a number of initiatives to explore the influence of sustainability on consumers' choices as well, examining the values, beliefs and behaviours of the so called 'green consumers' (Gilg *et al*. 2005). For example Gurnert *et al*. (2014, p. 187) "analysed the relationship between consumer motivation, understanding and use of sustainability labels on food products", finding "a low level of use" across the UK, France, Germany, Spain, Poland and Sweden in general. Of these, Spain had the highest level of concern, Germany a close second, and Poland and Sweden the lowest. In another study, Onozaka *et al*. (2011, p. 586) found that "most sustainable food claims were significantly valued by consumers…As expected, higher levels of carbon footprint and import sourcing were negatively valued by all shoppers, while local designations were positively valued by all, and organic certification was valued positively" in the US. In their study of consumers in Devon, UK, Gilg et al. (2005, p. 491) found a number of profiles for committed and non-committed green consumers:

- The mean age of committed environmentalists is highest, with the mean age of nonenvironmentalists being the lowest;
- There were significantly more males in the non-environmentalist cluster. The gender balance remains relatively stable in the three remaining clusters;
- Committed and mainstream environmentalists tended to have smaller household sizes than occasional or non-environmentalists. A significantly large number of households in these latter groups had more than five individuals in the home;
- Car access fluctuated according to the cluster examined, although this was not statistically significant;
- Committed environmentalists tended to own their home, whilst a greater proportion of non-environmentalists were either private tenants or rented their home from a local authority; Committed individuals tended to live in terraced properties, whilst mainstream environmentalists were more likely to live in semi-detached homes;
- Non-environmentalists were on significantly lower incomes. This was the case for the lowest income band of under 7500 a year. However, a significantly higher proportion of committed

environmentalists earned between 7500 and 10,000 pounds. The higher income brackets were equally spread between groups;

- Committed environmentalists were less likely to have received any formal education, but at the same time, were also more likely to have a degree. In the case of nonenvironmentalists, a large proportion had received no formal education, with low levels of GCSE, A-level and degree qualifications. Mainstream and occasional environmentalists tended to have GCSE qualifications; Non-environmentalists contained a large amount of Labour voters as well as a significant proportion that did not vote. There were markedly fewer Liberal Democrat voters amongst this group.
- Committed environmentalists were more likely to vote Green and Liberal Democrat. They were also the most likely to vote. Mainstream and occasional environmentalists represented what one might expect to be the national situation, with Labour the dominant party of choice, followed by the Conservative's and Liberal Democrat's; Committed environmentalists were significantly more likely to be a member of a community organisation, whilst occasional and non-environmentalists were least likely to be.

Tobler et al. (2011, p. 674) note:

> From the perspective of life cycle analysis (LCA), which examines the overall environmental impact of a product throughout its life cycle, it seems most important to avoid products transported by air, to prefer organic products, and to reduce meat consumption. Furthermore, heated greenhouse production should be avoided. Food packaging, however, tends to be relatively less important in terms of environmental impact. However, past research indicates that consumers are not necessarily aware of the environmental impact associated with product criteria. Although consumers generally believe that preferring locally produced and organic food is environmentally beneficial, they seem to overestimate the environmental impact caused by packaging material. Furthermore, consumers seem to be unaware of the environmental impact associated with meat consumption. Similarly, consumers' willingness to eat ecologically does not necessarily reflect the ecological impact order based on LCA results. While most consumers indicated they composted food scraps and bought locally produced foods, they were clearly less willing to reduce meat consumption and buy organic products.

While much of this may still hold, there has been an increased focus on reducing meat consumption, though this has been fairly recent – the UN issued a report outlining the connection between meat consumption and sustainability in 2019 – and whether this has been heeded and will impact consumers is yet to be seen (Schiermeier 2019). Citing a number of studies, Apostolidis and McLeay (2019, p. 109) note that "meat is increasingly being criticised as an unsustainable and unhealthy food choice, due to health risks and environmental concerns associated with its high carbon footprint and inefficient use of resources".

The research to date is mixed. A meta-study by Sanchez-Sabate and Sabate (2019) categorised all components of this issue, from awareness to willingness to change to levels of present change as minimal. It found that amongst different groups of consumers in Belgium, Finland, Germany, the Netherlands, Portugal, and the United States, the "percentages of aware participants ranged from 23 to 35 per cent across studies" (idem, p. 3). This same meta-study reports that in studies done in Finland, Germany, The Netherlands, Switzerland and the U.S. the number of participants "willing to stop or reduce meat consumption because of environmental reasons ranged from 12.8 to 25.5 per cent " (ibid).

One 2018 survey found that Scottish consumers were "broadly unaware of the need to reduce meat consumption for either environmental or health reasons" (Stubbs *et al*. 2018, p. 128). Another found that "34 per cent (2013) and 35 per cent (2014) of respondents reported a willingness to consider eating less meat, 20 per cent reported having already reduced meat intake and 30 per cent reported being unwilling to reduce meat consumption" (Stubbs *et al*. 2018, p. 129). A study from 2014 found that roughly three

quarters of Dutch consumers surveyed would be willing to consume one less meat meal a week, particularly younger, more educated female consumers (Slade 2018). Similarly, a "UK survey conducted in 2014 found that 20 per cent of respondents reported reducing their meat intake in the past year and 35 per cent reported a willingness adopt a meat-reduced diet in the future" (Mylan 2018, p. 2). A 2018 survey of Sydney residents found that roughly 23 per cent of respondents agreed or strongly agreed that meat consumption negatively impacted the health of the planet, with 77 per cent reporting a lack of knowledge on this issue (Marinova and Bogueva 2019).

While these numbers are not ideal for reducing climate change, they are still relatively significant in terms of market share. The increasing focus on meat consumption reduction could be useful for Ngāi Tahu producers as many of the studies that have focused on this trend have also looked at consumer's focus on the remaining meat in the diet being 'better'. As Apostolidis and McLeay (2019, p. 109) explain, "'consumer empowerment' can refer to 'meat-eaters', who purposefully purchase more sustainable meat, as well as 'meat reducers' who decide to consume 'less but better' meat products".

One study found that "50 per cent [of respondents] reported being willing to pay more for 'better' meat (e.g. tastier, healthier, higher animal welfare, better returns for farmers)" (Stubbs *et al*. 2018, p. 129). Certainly, Apostolidis and McLeay (2019, p. 111) found in their study that "labels relating to type of meat, fat content, origin and price are major factors that influence choice, other labels such as carbon footprint and production method labels play a secondary role in determining consumers' choices of meat/meat substitutes". However, as a premium product the 'better' meat only needs to be sold to a small segment of consumers. As they go on to note, "the impact that sustainability labels have on consumer choices and willingness to pay is largely dependent on consumer segments. Several studies have identified small segments of consumers (based on their knowledge, preferences, pro-environmental attitudes, psychometrics and demographics) for whom sustainability-related labels had a significant impact on their choices".

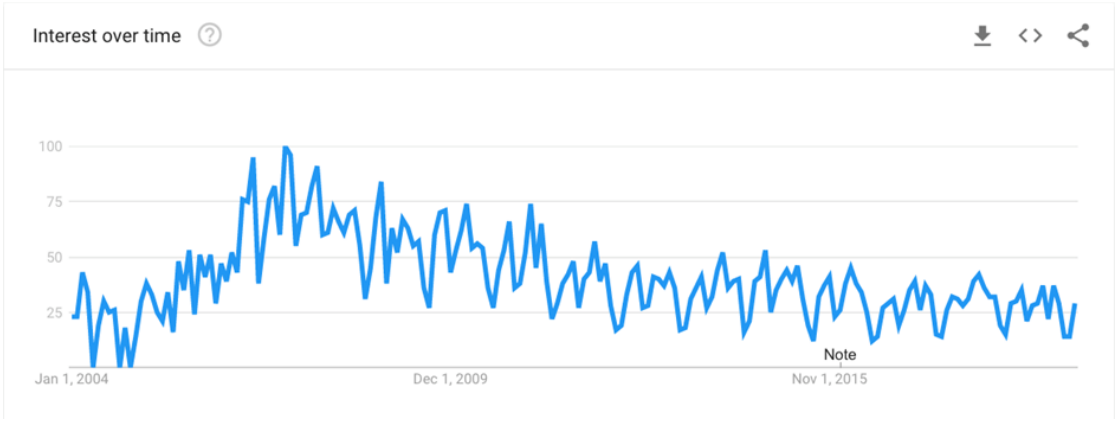
Figure 6.1 shows the results of Google Trend searches for 'food miles' (the term peaked in 2007), 'sustainable food' (slowly trending upwards) and 'food sustainability' (likewise).

Generally speaking, it appears that the ability to communicate the sustainability of Ngāi Tahu production methods to consumers probably has the biggest international market potential. However, while it appears that it would be one of the easiest and most reliable ways of connecting producer and consumer cultural values, there are two major issues. First, it is one of the more obvious ways in which many producers are marketing their food, making it hard to stand out amongst a wealth of alternative and dominant food networks. Second, and particularly problematic considering the first issue, there is the problem of 'food miles' perceptions.

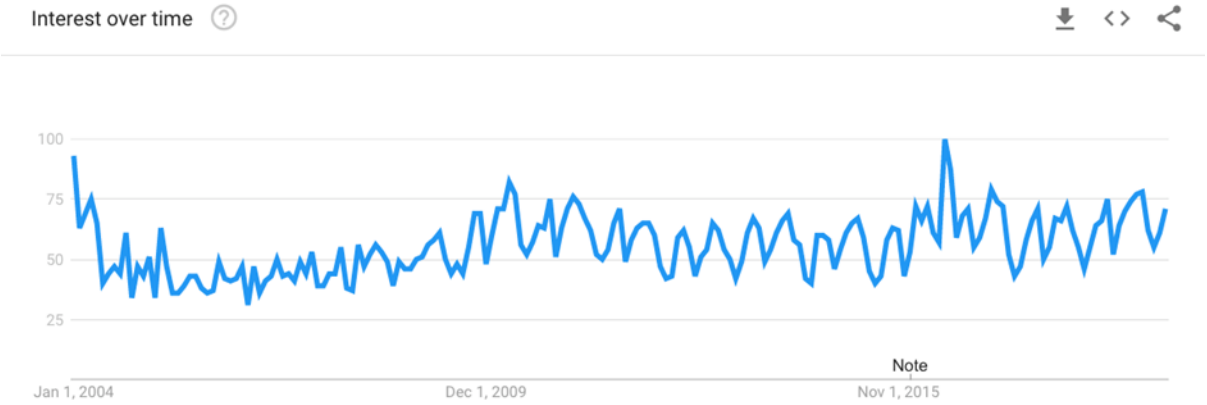
That said, an employee of NTF explained, "*we are still doing it differently to everyone else*", noting that while other primary producers had implemented environmental standards, NTF's focus was more holistic and embedded within a comprehensive set of value that gave them a "point of difference".[133] She went on to note that part of the difference was the motivation rather than the outcome, as while many producers met or exceeded environmental requirements because of profit or punishments Ngāi Tahu did it because they value the environment. She did, however, also note that while Ngāi Tahu was seen as an outlier when it brought its stringent environmental standards to farming a few years ago more operations were following their lead now, which indicates that standing out on this particular position would become increasingly difficult.

[133] Ash.

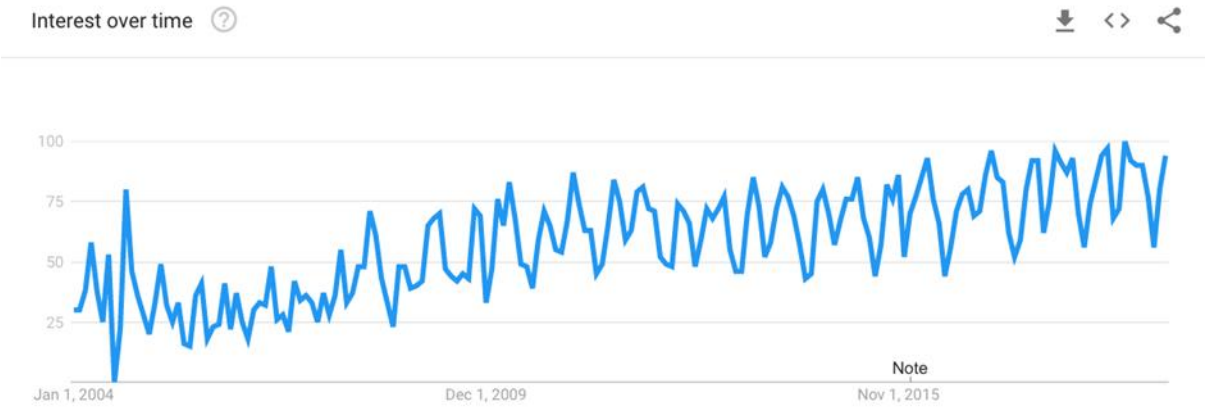
**Figure 6.1: Google Trends for 'Food Miles', 'Sustainable Food' and 'Food Sustainability'**




**(a) Food Miles**




**(b) Sustainable Food**




**(c) Food Sustainability**

## 6.8 Manaakitanga

Sharing food as a gesture of hospitality is, on the face of it, a fairly common value and behaviour around the world. Isaac (1978) argued that this food sharing behaviour can be traced back to humanity's earliest ancestors and was actually a fundamental component in the 'homoinisation' process. While values similar to manaakitanga existed across much of the Western world historically, they have weakened in recent centuries as societies have atomised – though some aspects are still present and there are places, particularly rural and more remote areas in these states, where these values remain fairly strongly entrenched (Lashley 2011). Belks (2009, p. 715) notes that:

> In the West a meal served "family style" means that the contents of serving dishes are freely available to all at the table. Participating in a "potluck" meal is another form of routinized sharing. Although we have a more individualized etiquette than the medieval European days when people ate from common trenchers and sat on common benches, we have retained many communal elements of sharing in eating. We also retain many vestiges of shared hospitality, as exemplified by hosting parties, accommodating houseguests, and caring for grandchildren.

In some respects, Belk views the modern forms of Western manaakitanga as having a more restricted domain than the former expression of those values, where the sharing occurs within smaller groups – and rarely with strangers – but is still driven by the same underpinning values and motivations. Lashley (2011, p. 5) takes a more negative view of the remaining manaakitanga-like values of the West, noting, "[i]n pre-industrial societies hospitality occupies a more central position in the value system. In the UK and other Western societies, … hospitality is a private form of behaviour, exercised as a matter of personal preference within a limited circle of friendship and connection… [whereas] in earlier historical periods in developed Western societies, hospitality and the duty to entertain both neighbours and strangers represents a more moral imperative".

Many academics are even decrying the decline of the shared family meal in recent years (Davis 1995; Fruh *et al*. 2011). As well as disputing this decline, Mestdag and Vandeweyer (2005) also note that the ideal of the family remains, even if they are not as frequent as they once may have been. While more about food distribution than specifically sharing meals together there are also recent trends driven by the internet such as 'Food Sharing' forums (Rombach and Bitsch 2015). As Rombach and Bitsch (2015, p. 2) explain:

> Food sharing occurs in various forms, for instance in underground restaurants, or within an organization called Food Sharing. In both cases, it involves using a social network or an online platform to distribute food items among registered users. In Germany, Food Sharing has approximately 28,000 registered members, exchanging food items through a platform without paying fees. Shared food items are leftover foods from private households, as well as groceries donated by local retailers or growers.

Certainly, this is driven largely by motivations to reduce food waste but there are also aspects of this movement that see people get together in underground restaurants where they share food with strangers as a way of connecting. Despite the declining 'manaaki' in the West, it is felt that the idea of sharing food with friends and family is still an important value and that even if the circle with who food is shared with has shrunk this still remains important. In the US, the Thanksgiving Dinner remains a central national and cultural event. Likewise, across much of the Anglosphere, the Sunday Roast remains an institution.

Beyond the West, many cultures still value sharing food and hospitality. In Arabic countries, despite the urbanisation and modernity, "their hospitality rituals persist. These rituals are, if anything, stronger today than ever before" (Sobh *et al*. 2013, p. 444). "Home hospitality in the Gulf region is strongly ritualized; both hosts and guests are expected to strictly obey the rules of hospitality and observe its etiquette.

Failure to do so, will likely damage the reputation of the host and guest and bring social critique" (idem, p. 450). In Arabic the word for hospitality is diyāfah, which also means a meal shared communally.

This is also true across Asia, Belks (2009, p. 715) writes:

> In much of Asia the tea cups are quite small and the beer bottles are quite large. For, in contrast to contemporary Western drinks, the beverages in these containers are meant to be shared. It is generally unthinkable that dinner companions would pour their own tea or sake or that they would consume a bottle of beer by themselves. So the small cups and large bottles assure frequent replenishment of others' beverages. Rituals of sharing are also emphasized in the communal dishes of a Chinese banquet with its round table and rotating Lazy Susan laden with food for all. A good Korean or Chinese host will even pick out the best morsels of food and place them on the plate of a guest.

Ma (2015, p. 195) explains that in "Chinese society, people usually treat others with meals in order to make new friends or enhance established relationships. Cantonese breakfast is known as morning tea and lots of people talk about business and exchange information while having morning tea together… Different foods convey different meanings among the eaters and indicate the closeness of the relationship. In Chinese culture, service of expensive and rare foods usually shows the respect to the guests".

While there is a culture of food sharing in India, it is traditionally (and still remains fairly strong) only between those of the same caste, with many strict taboos in place (Sen 2004). Ganguly (2017) explains, "[s]haring of food therefore also becomes a political act that determines hierarchy, caste and religion. The question of whom food is shared with, and how, ranges from to whom leftovers can be given, to feeding the poor, to mutual exchanges of special food prepared during festivals". Still, within castes the ethic of sharing food and providing hospitality to guests is strong (Sen 2004, 79):

> Hospitality is very important among all religious and social groups in India. 'A guest is god,' says a proverb. Indians often have many guests for meal and as overnight guests. Even in the poorest homes in villages, people will sacrifice to make sure visitors eat and drink well and the choicest portions are offered to them.

The Vedas state that giving food is more blessed than receiving it (Sen 2004). Subcontinental Muslims "consider sharing from a single plate a sign of equality and brotherhood. In the Bohri Muslim community, eating from the same thaal or large plate institutionalises communal sharing" (Ganguly 2017, unpaginated).

The commonality of hospitality and sharing food across Asia and the Middle East provides a useful mechanism for Ngāi Tahu producers as they can not only emphasise that they share these values but they can also use them to express how they are sharing their food with the consumer. The concept works at two levels. This would need to be pitched in the right way depending on the market, with some requiring little translation and others framed in language and underlying concepts that have resonance with the consumer. Any attempt to make this connection in India, for example, would need to be careful not to cross the caste system. In China, the type of food would need to be considered, so as not to imply the sharing of a food type that is considered disrespectful.

## 6.9 Whanaungatanga

The ethic of building relationships, like that of sharing food, would seem to be a fairly universal one, though there are cultural variations. In her book *Foreign to Familiar*, Lanier (2000) outlines what she calls 'hot' and 'cold' cultures. The main difference she identifies is that for hot (often either rural or tribal) cultures the ruling value is relationships, while for cold cultures (generally urban and 'modern') cultures,

the ruling value is efficiency. She identifies Northern USA and Canada, Israelis of European background, Swiss and Europeans living north of the Swiss, Caucasians from New Zealand, Australians, southern Brazilians, South Africans and areas largely settled by Europeans (like Argentina) as cold cultures. The southern USA, South and Central/Latin Americans, Israelis with a Middle Eastern background, Russians, people of the Andes and Himalayas, Eastern Europeans, Asians, Pacific Islanders, Africans, Mediterraneans, Middle Easterners and most of the rest of the world not included in the cold cultures list as hot cultures. As she notes, hot cultures are group-oriented and build their lives around people and relationships while cold cultures individualistic and are more focused on tasks and timelines.

More technically, Lanier is referring to individualist and collectivist cultures (Triandis 2018). As Triandis (2018, p. xiii) notes:

> In collectivist cultures this detachment is minimal; people think of themselves as parts of their collectives and in most situations subordinate their personal goals to those of their collectives. People's social behavior is a consequence of norms, duties, and obligations. They do not give up relationships unless the relationship becomes extraordinarily costly…In individualistic cultures people are more detached from their collectives. They feel autonomous, and their social behavior maximizes enjoyment and depends on interpersonal contracts. If the goals of the collective do not match their personal goals, they think it is "obvious" that their personal goals have precedence. If the costs of relationships are greater than their enjoyments, they drop the relationships.

The Western cultures of Europe, and the settler colonies that emerge from this area such as North America, Australasia and parts of Africa and South America, are the most individualistic. However, as Triandis (2018, p. 16) observes, as "cultures become more modern, complex, and dynamic, though, they become more individualist", and so there is a trend for more cultures to become more individualist.

Critically for Ngāi Tahu producers, some of the food subcultures and movements outlined in this report are driven by Westerners who want a relationship with their food, where it comes from and who it is grown or made by. In other words, while the cultures in these 'cold' countries have become more individualistic many of the people still desire relationships. Scholars as diverse as Marx, Habermas and Fromm have noted that as societies become more technological, bureaucratic, atheist, massive, and complex, the citizens become more alienated, atomised and isolated. A small part of this is the physical and psychological distance between people and their food. Overcoming this and creating a relationship with consumers, particularly through the use of the internet, would provide Ngāi Tahu producers with a powerful means of communicating their other beliefs, values and behaviours around food.

## 6.10 Kaihaukai, Cultural Regeneration and Indigenous Investment

The closest analogue to the concepts of kaihaukai, cultural regeneration and indigenous investment is that of fair trade, and this lens can be used to determine cultural resonances. The sale of food produced by Ngāi Tahu Farming generates profits that are reinvested into Ngāi Tahu environmental, social development, and cultural revitalization initiatives. Furthermore, the traditional values of kaihaukai focus on the exchange of goods for the collective welfare. The attributes underpinning both forms of economic activity resonate with the values underpinning the fair trade movement. It is acknowledged that a fair trade focus gives the analysis a Western-centric outcome, as fair trade is generally premised on ensuring the Global North purchases ethically produced items from the Global South. However, this slant is felt to be relatively accurate as the West are more able to afford to purchase imported food at a premium.

While there is no universally accepted or authoritative definition of fair trade, the Fair Trade Federation refers to it as (Connolly and Shaw 2006, p. 357):

> [T]rading partnerships are based on reciprocal benefits and mutual respect; that prices paid to producers reflect the work they do; that workers have the right to organize; that national health and safety, and wage laws are enforced; and that products are environmentally sustainable and conserve natural resources.

Fair trade is driven by the 'ethical consumer' who shares much in common with the 'environmental consumer' discussed in the kaitiakitanga section. For the ethical consumer "the social relations embodied in particular commodities increasingly shape product choices" (Connolly and Shaw 2006, p. 357). As well as having a high degree of crossover with environmental consumers, the ethical consumer is also more likely to be interested in organic food (Connolly and Shaw 2006).

The focus on fair trade has been largely centred on globalised commodities, particularly coffee, chocolate, and tea (Wilson 2010). While there have been attempts to focus on more specific and sometimes even indigenous products, Wilson (2010) points to a number of cases where this has not always been a positive result for the indigenous producers. That said, these are often highly marginalised actors who have little to no control over their supply chain, which stands in contrast to Ngāi Tahu producers.

It should be stated that the market share of fair trade is small, with the total global market breaking $US9 billion in sales for 2018 for the first time.[134] It is, however, showing growth and as Doherty *et al*. (2015, p. 158) note, it is "one of the most significant sectors of ethical consumerism in the world". Furthermore, while until recently it has largely been restricted to the Global North, "a recent phenomenon is the development of Fair Trade consumer markets in the Global South itself, particularly in the economies of South Africa, Kenya and Brazil" (ibid). It is a market with potential as it is growing in size within economies where it is already established as well as expanding into new markets.

An issue with the ethical consumer is that much of the research is unreliable. "On average," De Pelsmacker *et al*. (2005, p. 364) explain, "46 per cent of European consumers also claimed to be willing to pay substantially more for ethical products". However, as they go on to note, this does not always translate into sales as fair trade goods amount to less than 1 per cent of the market share across Europe. As they explain (ibid):

> One of the main reasons for this discrepancy is the attitude–behavior gap. On the one hand, consumer perceptions and attitudes clearly influence behavior, as conceptualized and tested in several models of ethical consumption behavior. On the other hand, it is well documented that attitudes alone are generally poor predictors of buyer behaviour… While some consumers refuse to buy products with an unethical background, the majority of people evaluate product attributes jointly in making purchase decisions. Price, quality, convenience, and brand familiarity are often still the most important factors affecting the buying decision.

Strong (1997, 35) puts it succinctly, "[f]air trade consumers are rarely ethically consistent". Still, there is a growing market of actual consumers.

In Europe, as Ozcaglar-Toulouse *et al*. (2006) explain, "[f]air trade sales in the major markets of the UK, Italy, Germany, Switzerland and the Netherlands accounted for around 80 per cent of all European fair trade sales during 2001–02". They identify the UK and Switzerland as the most important markets in terms of sale volume but note that the fastest growing markets for the period 2002–03 were Belgium, France and Italy, though France was the lowest per capita at this period. In 2009 the UK was the single biggest fair trade market in the world (Bondy and Talwar 2011). In 2015, the fair trade market was roughly a tenth of the organics market, with Europe accounting for about 80 per cent of all sales (Lernoud and Willer

134 https://www.globenewswire.com/news-release/2018/10/29/1638502/0/en/Fairtrade-Tops-9-Billion-in-Global-Sales-for-First-Time-on-8-Growth.html.

2017). The largest ten markets in terms of money spent for fair trade in 2015 were, from tenth to first: Australia; the Netherlands; Ireland; Canada; Sweden; France; Switzerland; USA; Germany; and the UK. The top ten in terms of per capita consumption were, from tenth to first: The Netherlands; Norway; Denmark; Luxembourg; Austria; Finland; the UK; Sweden; Ireland; and Switzerland. The majority of fair trade expenditure occurs in Europe, with the rest occurring in the North America and the Anglosphere. In Australia, the fair trade market was worth AUS$260 million in 2017, up 70 per cent in five years.[135]

The fair trade market is fairly recent in China, and is largely restricted to a few key products – such as coffee – in the bigger cities. Yang *et al*. (2012) found in their research that 89 per cent of Chinese respondents were willing to pay more for fair trade coffee. Gomersall and Wang (2012, p. 27) found about roughly the same percentage in their survey, noting that "60 percent of respondents would pay an extra 10 percent, and a further 20 percent would pay an extra 15 percent, making up over 80 percent of the sample". As they went on to explain (ibid):

> The group with a complete understanding all chose a premium of 16-20 percent, consistent with the general assumption that a greater understanding of Fairtrade leads to a greater willingness to pay for Fairtrade goods. These results suggest that consumers need to reach a much more well-rounded understanding of Fairtrade before they feel compelled to accept paying a higher premium for goods. The Chinese have a slightly lower preference to their UK counterparts, who would usually pay 10-15 per cent more for Fairtrade tea or coffee at the supermarket.

However, as De Pelsmacker *et al*. (2005, p. 365) note, "[i]n attitude research, people often give socially desirable answers". In other words, while 80–90 per cent of Chinese consumers said they would pay more, the reality is that only a tiny fraction of these respondents would actually put this into action.

A report by Neilson found that 52 per cent of the 30,000 surveyed across the Asia Pacific region had bought a product from a 'socially responsible' company in the past six months, which does at least help reduce the interference caused by wanting to give socially desirable answers.[136] The survey found that the most likely to purchase ethically were those aged 21–34.

## 6.11 Self-sufficiency and seasonality

There are still hunter-gatherer cultures around the world, but this section is more interested in looking at cultures where the hunting, including angling (recreational fishing), and/or gathering behaviours remain strong despite the transition to a different mode of subsistence. These are seen as having the most probable resonance with Ngāi Tahu attributes of self-sufficiency and seasonality. One note, seasonality also has strong resonance with environmental consumption, so there is a strong correspondence with the types of consumers discussed in the kaitiakitanga section. This section focuses on hunting and angling as there is much more literature on these than 'modern' gatherers – and what literature there is on the latter is generally focused on so called 'freeganism', where people gather food in urban contexts with an emphasis on the 'free', making them a poor match for producers looking to access international markets.

Generally speaking, most 'modern' cultures have strong hunting and fishing subcultures within them, with segments of society who hunt and fish for a mixture of pleasure and, to varying degrees, subsistence (Franklin 1998). As Franklin (2001, p. 57) notes, "[h]unters and anglers loom large in the landscapes of Western cultures and continue to engage with the natural world in a manner which in most respects is pre-modern".

[135] https://www.abc.net.au/news/2017-05-30/does-fairtrade-make-a-difference/8568644.
[136] http://www.fruitnet.com/asiafruit/article/162874/millennials-driving-fair-trade-demand.

While numbers of hunters declined during the second half of the twentieth century, "hunting remains a widespread activity in many highly industrial and post-industrial regions of the world, and participation has remained more stable than for many other forms of nature-based recreation" (Peterson *et al*. 2010, p. 128). In both Western Europe and North America "hunting is a culturally important activity associated with food production for millions of participants with diverse socio-economic backgrounds" (Peterson *et al*. 2010, pp. 128-129). In 2007, Ireland was the European nation with the largest percentage of hunters, with 9 per cent, in the Nordic countries around 4 per cent hunt, while "France (2.1 per cent), Spain (2.3 per cent), Portugal (2.3 per cent), and Greece (2.7 per cent) also host large hunting populations. Less than 2 per cent of the population hunts in most of the remaining European nations including Germany (0.4 per cent)" (ibid). In the US, roughly 4 per cent of the population hunts, while in Canada that figure is 5.1 per cent (idem). There appear to be sizable minorities of hunters in several Western states that Ngāi Tahu could target for specific forms of produce.

While most citizens of 'modern' states do not need to hunt for subsistence, this is not true for all citizens and there is a mixture of motivations – though generally speaking it is more motivated by non-subsistence drivers. Dahles (1993, p. 169) states that "hunting is not vanishing despite the pressures of modern society and the absence of the necessity of hunting for subsistance [sic]". The "popularity of hunting in the highly industrialised and densely populated countries of northwestern Europe cannot sufficiently be explained by external factors such as population growth, increasing welfare and leisure" (Dahles 1993, p. 172).

Dahles (1993) sees hunting in northwestern Europe as an expression of a 'new leisure class', middle-aged and middle-class professionals who live in a rural community. This is largely backed up by Peterson *et al*. (2010, p. 129) who write that "hunting is shifting from a life supporting activity of rural communities to a leisure activity of increasingly urbanized populations" in the industrial and post-industrial nations. Likewise, Franklin (1998, p. 355) writes that "[f]ar from being the preserve of traditional, rural groups in society, the new proponents of hunting and angling are drawn from sectors of the urban middle class for whom such discourses have particular appeal". In the US, the appeal of hunting is derived from, amongst other aspects, the freedom of movement, appropriation of natural bounty and the ability to provide for yourself. Franklin (1998) contrasts this with the UK, where hunting was often the preserve of the upper classes and still retains a greater degree of social stratification than in the US, where hunting can be seen as an expression of that key American value, individualism.

While many non-hunters are opposed to what they see as a 'blood sport' (Dahles 1993), some suggest that hunting "has the potential to remind modern societies of their reliance on natural systems", that "hunting may be anachronistic in modern society, certain dimensions of hunting culture may enable society to re-collect a sense of human integration with nature" (Peterson *et al*. 2010, 127). As Peterson *et al*. go on to note (idem, p. 137):

> Hunting culture has begun the political task of recognizing and framing itself as a significant contributor to sustainability by explicitly highlighting its role in the production of local and free range food. Pressured by a significant and vocal public opposition to hunting in northern Europe, for example, hunting associations in Sweden, Norway, Finland, Denmark, and Iceland, have developed an ethical and social awareness of the broader social potential to link society with natural systems, as well as an awareness of the internal ambiguities existing within the hunting culture.

This suggests that not only could Ngāi Tahu producers align themselves with this same framing, but that they could market their deeply rooted affinity with hunting and fishing to both the subcultures as they share many of the same values. As many of the hunters are in the urban middle class and hunting brings with it an awareness of natural systems, this also suggests that they are relatively aware, potentially even 'green', consumers.

Angling is a popular global sport and leisure pursuit, with Cooke and Cowx (2004, p. 857) estimating that the "potential contribution of recreational fish harvest around the world may represent approximately 12 percent of the global fish harvest". "Recreational fishing", as Kearney (2002, p. 18) notes, "has increased in developed countries in line with increased leisure time and affluence. In effect, subsistence activities have progressively given way to recreational pursuits in these countries." This varies across countries, as they note in Europe it goes from "about 1 percent in southern European countries to more than 40 percent in Finland" of the population.

Ditton (2008) provides the percentages of population who fish recreationally for a number of countries: 4.7 per cent in Germany; the Netherlands 11 per cent; Australia 20 per cent Sweden 33 per cent; and Lithuania 55 per cent. Fishing is popular in the US, with 35.6 million, or 19 per cent of the population, over sixteen years old having fished in the past year in 1991, compared to 14.1 million hunters in the same year (Franklin 1991) and 33 million in 2011.[137] It was the most popular participant sport in the UK in 2008, "where 4 million (9.3 per cent) residents in England and Wales over the age of 12 went fishing in 2006, 8.3 million (20 per cent) have been freshwater fishing in the last 10 years and 3.3 million (7.2 per cent) of the population are classified as regular anglers" (Mordue 2008, p. 8). The estimated percentage of recreational fishers in China is 7 per cent of the population (Ditton 2008). As Ping (2014, p. 1) notes, "[r]ecreational fisheries in China underwent rapidly expanding in recent years… [and in] the last century, urban recreational fisheries have developed rapidly in coastal areas of China".

Thus, there is a bigger number of anglers than hunters in both the West and beyond. Ngāi Tahu producers, particularly Ngāi Tahu Seafood, could market to these consumers with the right product.

While hunting is a largely male preserve, angling has a significant female participation rate (Franklin 1998). Angling in the US is also predominately middle-class activity, while in the UK it had the same restrictions as hunting historically in the nineteenth century there was an increase in working class angling (Franklin 1998). In the US, "angling participation increases with income, except for the very highest income bracket where it decreases only slightly. The more educated are more likely to participate, 92 per cent of American anglers are white and 10 per cent of blacks fish while 20 per cent of all American whites do" (Mordue 2008). In their study of why Australian anglers fish, Young et al. (2016, pp. 117-119) identified:

> Environment, nature and scenery emerged as the most frequently identified motivation (96 per cent of recreational fishers) for fishing in Australia… Fishing for food was identified as a motivation by 80 per cent of recreational fishers interviewed in Australia… All fishers described their fishing experiences fondly and recounted tales with smiles, laughing and profound enjoyment… Fishers in Australia also identified the importance of knowledge development and demonstration of skill (40 per cent of fishers) and the challenge of hunting and deceiving prey (60 per cent of fishers) as important motivations to fish… [and] Some fishers in Australia (44 per cent) described an instinctual hunter gatherer motivation to fish.

Angling is not just popular in terms of numbers, but is a sport for which people have a deep love and extreme passion, with numerous angling clubs and lobby groups around the world (Kearney 2002).

Ngāi Tahu producers could target the significant numbers of hunters and anglers across the many developed states, representing themselves as coming from a long line of hunter and fishers with a strong tradition for being on the land and sea. As noted, this could be connected to the environmental and ethical aspects of these sports. While there might appear to be a disconnect between selling produce to people who like to hunt and angle, these people are not subsistence.

[137] https://asafishing.org/uploads/2011_asasportfishing_in_America_Report_January_2013.pdf.

## 6.12 Kīnaki

The best analogue for kīnaki concept is the luxury and specialist food markets, though this can obviously cover a vast range of goods that may only have a slim intersection with Māori kinaki. That said, it still provides the best insights available without conducting independent research. Hartmann *et al.* (2017, p. 734) explain that "[m]otives for luxury consumption can generally be subdivided into three categories, which consist of externally and internally related motives as well as hybrid motives, which, for example, are motivations induced by price and quality". These can be seen in their table, reproduced here as Table 6.1.

**Table 6.1: Motives for Luxury Consumption**

| Externally related motives | Internally related motives | Hybrid motives |
|---|---|---|
| Conspicuous consumption/Signaling | Hedonism and indulgence | Quality |
| Social stratification | Experience | Usability |
| Status and prestige | Self-realization | Uniqueness |
| Tradition | Self-fulfillment | Materialism |
| Self-portrayal | Individuality | Price |
| | Inspiration | |
| | Authenticity | |

Source: Hartmann *et al.* (2017).

An Australian report from 2015 (Frost and Sullivan 2015, p. 10) explains that "Asia Pacific is the fastest growing global market for luxury foods, stimulated by factors such as rapid economic growth and significant wealth disparities (compared to Europe, North America and Australia) which has stimulated the development of a rapidly growing number of high net worth individuals". They note that there are around 4.5 million of these high net worth individuals in the region, with around three quarters of these in Japan, China, and Hong Kong. As well as having a significant number of high net-worth individuals, these countries place a significant emphasis on status, as demonstrated by the consumption of luxury foods. Frost and Sullivan also explain that one "notable trend in luxury food consumption has been the westernisation of tastes in luxury food, with foods from Europe in particular gaining significant share of consumption in Asia" (ibid). Regarding China (idem, p. 15):

> Luxury foods in China are largely purchased for and consumed on special occasions, such as business and formal banquets, weddings and intimate gatherings for close friends and family. These occasions are an opportunity to display the wealth and status of the host and to demonstrate appreciation and hospitality to guests by providing them with expensive, rare and wild cuisine.

While the taste is for European foods, Chinese do like wild cuisine and this would suggest that, marketed correctly, some kinaki could be attractive to Chinese consumers. One food type identified by Frost and Sullivan is abalone, or pāua. They explain pāua "is a delicacy in Chinese cuisine as it is highly valued for its medicinal and nutritional properties. Not only is the meat consumed but the shell of abalone is also used as a treatment for various health ailments in Traditional Chinese Medicine" (Frost and Sullivan 2015, p. 15). Ngāi Tahu Seafood already exports pāua to China, along with a range of other seafood. Other delicacies listed that have relevance to New Zealand are sea cucumber, though this may not be an easy product to export, rock lobster, cheese, Wagyu beef, truffles and wines.

Regarding Japan, Frost and Sullivan (2015, 30) explain, "Japanese buy luxury food seasonally ("kisetsukan" or sense of seasons), as a treat for themselves ("petit zeitaku" or small luxury and gratification), or commonly as gifts for family, friends, or colleagues, therefore presentation is a very crucial aspect of food". Because Japan has one of the highest income levels across the region, "in Japan luxury foods can often be afforded by the middle class" (ibid). There are several foods that Japan values highly that New Zealand could supply, including pāua, truffles, and wine.

Several other Asian countries are analysed in the Australian report, but as their potential is low only the congruent food types are discussed here. India is listed as a more minor potential for luxury food, with lobster and wines the only two products New Zealand could supply. Indonesia is also relatively limited, with pāua, lobster, truffle, wine, and Wagyu beef all valued commodities. In South Korea, pāua and beef are both highly valued, as are truffles and wine. In Singapore because of the Chinese population the valued foods are the same as China.

Europe remains a fairly significant market for luxury foods. While hit by the 2008 financial crisis the luxury food trade has seen an upward trend in the past few years.[138] However, there have been some shifts in what is considered luxury. Hartmann *et al*. (2017, p. 735) explain that "there has been a shift in luxury food consumption motives for some German consumer segments. Product characteristics such as quality, sustainability, and authenticity as well as hedonistic values such as food enjoyment have gained more importance to consumers."

The specialist food market is an interesting area. One group of specialist food eaters are referred to as the "the adventurous food consumers" (Hartmann *et al*. 2017). They can be characterised in several ways (Fang and Lee 2009, p. 2039):

> Consumers in this segment prefer advertised food products and like to buy foods in specialty shops with the assistance of a salesperson. In general, these consumers are interested in all food-related activities; they are price consciences to certain degrees, they usually do research before making purchase decisions. In terms of quality, they have strong preferences for organic and healthy foods; however, they also like to taste various exotic cuisines and emphasize the importance of food tastes.

As Brunsø *et al*. (2002, p. 14) outline, the "adventurous food consumer is in general from the younger part of the population, and household size is above average. The adventurous food consumers have the highest educational level and have high incomes. They tend to live in big cities." Nearly a quarter of the German and Denmark populaces could be categorised as adventurous, while in Spain this is a fifth, the UK is 12 per cent, and Ireland is 8 per cent (Buckley *et al*. 2005). Research in Beijing, Shanghai, and Guangzhou found that 13 per cent of Chinese consumers were classified as adventurous (Huang *et al*. 2015). Freedman (2016) argues that most of Japan can be classified as adventurous, as a key aspect of Japanese food culture is variety, which encourages an adventurous palate.

This would suggest Japan is an ideal target for Ngāi Tahu kīnaki. In the past decade this urge for new and different foods has grown even bigger, driven by increased travel, the dominance of the internet and the explosion in food oriented TV shows.[139] 2019 was declared the 'year of the adventurous food consumer' by Innova Market Insights, who found that two in three UK, US and Chinese consumers love discovering new tastes.[140]

[138] https://www.ft.com/content/76c28cc0-cc90-11e8-9fe5-24ad351828ab.

[139] https://www.abc.net.au/news/2019-01-10/adventurous-consumers-among-food-trends-in-2019/10681230.

[140] https://www.foodspark.com/Trends-People/The-rise-of-the-adventurous-consumer-and-other-trends-Innova-expects-to-be-key-in-2019.

## 6.13 Modern vitalism

Modern vitalism is best captured by examining animist cultures. Animism is, and more particularly was, a common worldview and almost every culture and society has at some point been animist, including Western cultures (Degler 1991). Most of the remaining indigenous cultures around the world – from North and South America to Europe to Africa to Asia to Oceania – can be considered animist; as noted in the previous section on animism, it is often a worldview related to hunter-gatherer societies. However, there are other more 'modern' cultures that can be considered animist or have aspects similar to animism as core components of their worldview. In many cases, animism remains a syncretic component of local expressions of many of the world's dominant religions – though most of these are religions that have emerged in the wider Asian region (Brohm 1963; Dutch 2000; Karlström 2005; Sills 2010; Schumacher 1984).

Korea is an example of a 'modern' culture which has strong remaining animist aspects – which are often blended with Buddhist and Taoist beliefs and rituals (Baker 2008). However, it is Japanese Shintoism – an ancient belief system – that is most often held up as the example of a 'modern' culture that remains resiliently animist. Victoria (2018) explains that "Shinto is considered to be, at least in its origins, one expression of animism, the world's oldest religion. Thus, we are left with Shinto as both a religion unique to Japan and an expression of the world's oldest faith". Victoria (2018) notes:

> [T]here is a tendency to regard animistic faiths as either primitive or at least stuck in the past, Shinto belies this reputation. Not only does it accept foreign priests but it also, for example, conducts purification rituals on cars, to ensure the traffic safety of adherents. Moreover, it is even possible to bring personal computers to the shrine for ritual purification. This is in addition to more traditional purification rituals such as those performed at ground-breaking ceremonies at construction sites, whether for private residences or soaring skyscrapers. Albeit an animistic religion, Shinto is clearly capable of evolving and remaining relevant to the modern world. This flexibility and openness are no doubt one of the main reasons for its ongoing vitality.

While not an exhaustive list, and one with a wide amount of variation both between and within cultures, there are many cultures that have degrees of animist beliefs: most American indigenous cultures, most African cultures, most Southeast Asian cultures, Japanese, Korean, Russian, Indian, and Sri Lankan.

In his discussion of Shintoism, Victoria (2018) explains how after entering a Shinto shrine an offer is made, often food, as "practitioner must first engage in a transactional relationship with the deity being worshipped". He then goes to note:

> Of all the ways that animistic practices might have been incorporated into organised religions, this transactional relationship is potentially the most far-reaching. Simply stated, there is no organised religion existing today that does not, directly or indirectly, require the believer to make an offering of some kind as a necessary condition for receiving the deity's blessings, as well as in order to be accepted among the faithful.

This is a critical point. Most religions have animist aspects, either because the local adherents have blended the religion with their pre-existing animist beliefs or because the religion actively adopted those beliefs – that is, the driver can be either bottom-up or top-down. However, animism goes deeper than that. It has been argued by a number of different theorists (Bai 2009; Hornborg 1999; Latour 1991) that many in the West can be considered 'practising animists', with Reid and Rout (2016a, p. 429) offering the example of "a farmer who sends cattle to the abattoir but loves his dog… [Being] both a situational modernist and an innate animist".

Taoist beliefs are very similar to animism, as Fikentscher (2004, 161) notes: "Taoism… is an axial age [period between the eighth and third centuries BCE] belief system superimposed by elements of animism…Taoism as it is observed today (e.g. in Taiwan) is an axial age ethical doctrine combined with practiced animism." In Taiwan, "[t]he religion of the majority of people in Taiwan is an amalgam which is in essence a mixture of Confucianism and animism permeated with Taoist elements and often placed in a Buddhist framework" (Lee and Sun 1995, p. 101). Again, just like Shintoism, animism has been blended with an array of other 'Eastern' religions in Taiwan.

One critical segment of the West that could be seen to have a closer affinity with animism (and many of the other core Ngāi Tahu beliefs, values and behaviours) are various belief systems – often borrowing from Eastern religious systems in a haphazard manner – such as New Age adherents. While the segment of any Western population that could be considered fully New Age in their spiritual beliefs is not large, a recent Pew Survey showed that while "[m]ost American adults self-identify as Christians… many Christians also hold what are sometimes characterized as 'New Age' beliefs – including belief in reincarnation, astrology, psychics and the presence of spiritual energy in physical objects like mountains or trees. Many Americans who are religiously unaffiliated also have these beliefs."[141] Indeed, this survey found that roughly six in ten American adults accept at least one of these New Age beliefs.

While many in the West would not view themselves in this way, the point is that many of the attributes of animism would have appeal with Western markets if they were conveyed in the appropriate manner. As Reid and Rout (2016, p. 431) explain, "[m]arketers often use animism, or rather the anthropomorphizing tendency that we believe is an aspect of animism, to imbue commodities and brands with 'human' traits that increase their appeal to consumers. While the most obvious forms of this type of marketing involve the use of mascots it is a far more wide-reaching phenomenon." Quoting Fournier, they go on to explain (ibid):

> [M]arketers humanize commodities and brands in a wide number of ways, from the 'transference of human qualities of emotionality, thought and volition' via mascots through to possessing the brand with 'the spirit of a past or present other' through celebrity endorsement, but she explains they 'need not engage these blatant strategies to qualify as [being an] active relationship partner. Rather, all that is required is 'the everyday execution of marketing plans and tactics [that] can be construed as behaviors performed by the brand acting in its relational role'. Fournier explains that people's innate anthropomorphic tendencies mean they will naturally relate to the brand in a humanized manner as long as the marketing reinforces this relationship. This form of marketing seeks to create false relationships by manipulating people's natural tendency to humanize nonhuman entities, or, as we argue, to relate to them in an animist fashion. This approach is evident in Fournier's statement that a ''brand may enjoy selected animistic properties, but it is not a vital entity. In fact, the brand has no objective existence at all: it is simply a collection of perceptions held in the mind of the consumer. The brand cannot act or think or feel—except through the activities of the manager that administers it''. The brand is a fiction, made to seem like it can act, think, and feel by the activities of marketer'.

While animism can be used in a cynical manner by corporate actors, from a genuine animist perspective there are a number of ways it can be harnessed more legitimately. Animism encourages both sustainable use of the environment and ethical treatment of animals, as Harvey (2005, p. xi) writes, "animism is more accurately understood as being concerned with learning how to be a good person in respectful relationships with other persons", where 'other persons' can be either human and nonhuman. Animism motivates sustainability and ethical treatment because nature and all other planets and animals are understood as subjects whose wellbeing is inherently important (Reid and Rout 2018).

[141] https://www.pewresearch.org/fact-tank/2018/10/01/new-age-beliefs-common-among-both-religious-and-nonreligious-americans/

This can be communicated to consumers, with connections made to kaitiakitanga and mauri. As Reid and Rout (2016, 434) note, "[c]ommunicating the animist worldview through… marketing can also enhance greater environmental and ethical awareness by emphasizing the agency of nature and the mutual interdependence that the reciprocal interactions generate. This is not conjecture, worldview has been shown to influence ethical and environmental attitudes and animist societies have proven ethical and environmental credentials which have flowed from their worldview".

At a more basic but deeper level, Ngāi Tahu producers could also seek to create a relationship between the producer and consumer directly. While this is often a false projection in modern Western producer-consumer relations, when created and maintained by animists there is a genuine and legitimate underpinning – one that can be facilitated by social media and the internet (Reid and Rout 2016a). One of the big issues in food studies has been the growing distance, both physically and psychologically, between producers and consumers of food (Campbell 2009, 2015; Friedmann and McMichael 1989; Le Heron and Lewis 2009). For most people, it has become 'food from nowhere', and much of the research has focused on the alienation people feel from the wider food production system as both a cause and consequence of the growing atomisation of society. Animism is all about relationships, and one of the key ways in which an animist food producer can convey their animism is simply by creating a genuine relationship with their consumers.

# Chapter 7
# Evolving Food Subcultures/Trends

As well resonances between Ngāi Tahu-ness of kai and various cultures, there are also several older and newer food subcultures, trends or movements that have resonance with some or all of the dominant aspects outlined in the previous chapters. These are presented here in chronological order, as best they can be, as they also help to build a wider picture of the various drivers in the agrifood sector. Asp (1999, p. 291) writes:

> Some food trends are popular and enduring, while others are short-lived. Several established and emerging food trends…affect the food decisions individuals make. These include foods that taste good because they are fresh, particularly fruits and vegetables; convenient foods that are quick to cook; ethnic foods with distinctive ingredients, flavors and spices; fusion foods (that combine ethnic cuisines); prepared home meal replacements, more food mixtures particularly those with less meat; more vegetarian meals; foods labeled natural or organic; food that is available in a variety of places to be eaten anywhere at any time by grazers and snackers; foods that promote health (e.g. probiotics and nutraceuticals that contain phytochemicals and other ingredients with special medicinal properties); and physical performance-enhancing energy foods.

One interesting point made by a BBC journalist in her review of the Atkins' diet is that "people will get their dietary tips from other ordinary people as much as they ever do from doctors and nutritionists".[142] Thus, while much of what follows is based on academic literature, it will also use other sources of information, particularly that found on the internet. This raises a second key point, the increasing influence of the internet on food decision-making, particularly food movements. As this is a somewhat chronological approach, this will become increasingly obvious.

## 7.1 Vegetarianism, Veganism and Flexitarianism/Reducetarianism

Defining what is meant by vegetarianism is problematic. As Ruby (2012, p. 141) notes:

> For all its history, vegetarianism is notoriously difficult to quantify and study. Scholars and laypeople alike vary widely even in how they define vegetarianism, with some self-identified vegetarians eschewing all animal products, and others occasionally consuming meat, fish, and poultry, while still calling themselves vegetarian.

Ruby (2012, p. 142) proposes that:

> [V]egetarianism is better measured as a continuum of categories, measuring the progressive degree to which animal foods are avoided. At one end of the spectrum are Type I vegetarians, those who consider themselves vegetarian, yet occasionally eat red meat or poultry, typically resulting from the temporary unavailability of vegetarian food option, or from the desire to avoid embarrassment in social settings where meat is being served. Type II vegetarians avoid consuming meat and poultry, Type III vegetarians also avoid fish, Type IV also exclude eggs, and Type V exclude dairy products produced with rennet (enzymes extracted from the stomach of young calves). At the opposite end of the spectrum are Type VI vegetarians, or vegans, who consume only vegetable-derived foods, avoiding all animal-derived food products.

[142] https://www.bbc.com/news/magazine-22145709.

Vegetarianism is the most venerable of the food movements, with antecedents going back as far as 600 BC (Spencer 1996). Shapin (2007) explains that there were three key drivers of vegetarianism during the fifteenth to nineteenth century:

> [T]here was the religious question, concerning the implications of Scripture for human alimentation; there were medical questions about the effect of eating meat on human health and character; and there was a philosophical debate about the proper relationship between man and other animals. There was no distinct category you could call moral, because all of them were, as they remain, intensely moral.

While religious factors were the most common drivers, there was also a potential influence regarding the actual sustainability of vegetarian diets from India. Shapin (2007) notes: "Europeans, having long believed that animal flesh was necessary to sustain vigorous life, were astonished at the existence of the pagan yet pious Brahmins, who ate no meat but evidently thrived". It has been argued that the spread of vegetarian doctrines in the West during the seventeenth and eighteenth centuries was a product of the increased interaction with India (Shapin 2007). In the eighteenth century, vegetarianism as an expression of animal rights became more common in Europe. The term 'vegetarianism' itself was coined in the 1840s and it was around this time that the modern form of the movement can be directly traced (Spencer 1996).

In 1847 the Vegetarian Society was formed, as a product of the Christian fundamentalist movement and backed by scientific research that erroneously found that plants were the primary source of protein and there was no difference between animal and plant protein (Spencer 1996). While not solely driven by Christian fundamentalism, this was an influential component of nineteenth century vegetarianism (Shapin 2007; Spencer 1996). Vegetarianism was, during this period, very much an outlier. As Zaraska (2016) writes, "[n]ineteenth-century vegetarians were often considered too radical, too naïve, or, simply speaking, wacko. They were called 'half-crazed,' 'sour-visaged,' 'infidels,' and 'food cranks'". She goes on to say that "admittedly, some of them had pretty unusual ideas".

Despite the unusual ideas, vegetarianism was still relatively popular in the late nineteenth century, though it was largely a choice available only to the wealthy, as most lower classes at this point had incredibly limited diets with little access to any of staples of a vegetarian meal and many were malnourished (Spencer 1996). As Spencer (1996) also notes, it was only around the turn of the century that the idea that fresh fruit and vegetables were not only good for you but were essential for health had become a relatively widespread understanding in the West and, consequently, vegetarianism – which until this point had been considered a 'lunatic fringe' – was viewed by more people as, at least theoretically, not foolish. The scientists Bircher-Benner and Gayelord Hauser had helped with this shift, studying and promoting the benefits of fresh and raw fruit and vegetables – with Bircher-Benner showing that contrary to popular opinion raw food was more digestible than cooked food (idem).

The first half of the twentieth century saw vegetarianism decline, as "the two world wars pushed Western diets firmly back toward meat" (Zaraska 2016). "To begin with," as Zaraska (2016) explains, "it's hard to care for animals when you see so much human suffering around". Rationing and military rations also meant that many had greater access to meat than they ever had before. Furthermore, the archenemy was a well-known vegetarian. While Hitler's much promoted vegetarianism did not help the movement, by the end of the Second World War more research had been done into diets, driven by the need to maintain millions of fighting men, and much of the research backed the need for fresh fruit and vegetables (Spencer 1996).

The term 'vegan' was coined in 1944 with the creation of the Vegan Society, which "emerged in England in November of 1944 following a friendly but drawn-out schism within the British Vegetarian Society" (Wrenn 2019, p. 1). The Vegan Society (quoted in Wrenn 2019, p. 1) defines veganism as "a philosophy and way of living which seeks to exclude—as far as is possible and practicable—all forms of exploitation of, and cruelty to, animals for food, clothing or other purpose". Just like vegetarianism, there are many veganisms, with differing views on things such as honey, leather, and other animal products. "As a moral endeavor," Wrenn (2019, p. 2) writes, "The Vegan Society presented plant-based consumption as a solution to famine, war, environmental devastation, health, and especially Nonhuman Animal suffering". If vegetarianism was a fringe movement in the nineteen forties, veganism was the fringe of the fringe.

By the mid-twentieth century, vegetarianism was becoming more diverse in its manifestations and motivations. The counter-culture movement of the nineteen sixties saw vegetarianism become increasingly popular, though only with those in the movement as the hippy image tainted it for the wider public (Spencer 1996). As Zaraska (2016) notes, this connection with hippies continued vegetarianism 'fringe' status into the nineteen seventies. Maurer (2002, p. 50) notes that in the nineteen seventies several nutritionists characterised vegetarian diets as medically unsound and feeding children vegan diets was labelled a form of child abuse. The counterculture obviously connects with the New Age spirituality movement, and we can see an intersection of beliefs between some motivations behind vegetarianism and those discussed above.

While the earlier vegetarians had largely been part of various organised movements, the counter-culture saw a far more personalised form of vegetarianism emerge which was not guided or organised by a wider body but was more individualised and involved horizontal rather than vertical connections (Spencer 1996). While generalising about such a diverse and individual set of choices is difficult the vegetarianism of the nineteen sixties was largely driven by spiritual and health interests, though political and ecological drivers were also present (Spencer 1996). Nevertheless, the publication of Lappé's influential 1971 book *Diet for a Small Planet* provided a powerful ecological argument for vegetarianism (Maurer 2002). Likewise, Wrenn (2019) notes that the Vegan Society received a boost when the BBC covered it in 1976, seeing it gain several hundred new members – which still left if a very small grouping.

Vegetarianism remained a relatively fringe movement into the 1980s, which Zaraska (2016) sees as being driven by the materialism of that decade – with the consumption of the more expensive meats a powerful means of communicating wealth. Behind the scenes, more and more scientific evidence backed the vegetarian diet was being produced during the 1980s (Maurer 2002). It was only in the 1990s that vegetarianism became increasingly mainstream, driven by the ethical and environmental concerns that had become better publicised and accepted by the wider public (Spencer 1996). As well as the growing understanding of the human impacts on the climate, and increasing publicity of the treatment of stock animals, the food scares (discussed below in greater detail) also saw many consumers question where their food came from and how it had been treated.

As Maurer (2002) explains, the modern expression of vegetarianism is complex and diverse. While the most common association is with ovo-lacto-vegetarian (people who do not eat meat, poultry or fish but eat dairy and eggs) there are also lacto-vegetarians, who do not eat eggs but do eat dairy, ovo-vegetarians – vice versa – and vegans, who do not eat any animal products, and sometimes do not wear them. Maurer (2002, p. 2) makes the point that for many modern vegetarians it is more than a dietary proscription, it is "a way of life" though she goes on to state that "vegetarians do not appear to be particularly politically active or publicly outspoken, most do not belong to any movement or organization, and national campaigns promoting vegetarianism are rare". The individualisation of the counterculture seems to have continued into the contemporary era.

In the modern era, Western vegetarianism is driven by three key concerns: the environment, animal rights, and health concerns (Ruby 2012). Ruby (2012) suggests studies have found that animal welfare is the most common concern, followed by health, with environmental issues third. However, Shapin (2007) makes an interesting point, that while many vegetarians have argued that if people could see what goes on inside an abattoir they would be vegetarian that:

> [T]hings are different on the other side of the slaughterhouse wall. Those who kill animals in the course of their working day may quickly become habituated to it, and to dismiss this effect as mere desensitization effectively discounts great knowledge of animal death in favor of slight knowledge. Similarly, those who like to romanticize country people are frequently discomfited by their uncuddly ways with livestock. A major source of the sympathy with animal suffering that developed so strongly from the Enlightenment may well be the pattern of urbanization that removed so many of us from daily experience of how our food is produced.

The rise in vegetarianism can be understood as not just emerging from environmental, ethical and health concerns but also as result of humanity's increasing abstraction from Nature (something that also drives interest in provenance and authenticity, discussed below). Vegetarianism has become increasingly popular, particularly in the West, with "8 per cent of Canadians and 3 per cent of US Americans identify as vegetarian…3 per cent in the UK, 1–2 per cent in New Zealand, and 3 per cent in Australia, with markedly higher rates of 6 per cent in Ireland, 9 per cent in Germany, 8.5 per cent in Israel, and 40 per cent in India" (Ruby 2012, p. 142). India has a deep historical vegetarianism, explaining the 40 per cent. However, as Shapin (2007) notes:

> The number of vegetarians in developed countries is evidently on the increase, but the world's per-capita consumption of meat rises relentlessly: in 1981, it was 62 pounds per year; in 2002, the figure stood at 87.5 pounds. In carnivorous America, it increased from 238.1 to 275.1 pounds, and the practice is spreading in traditionally herbivorous Asia. Indians' meat consumption has risen from 8.4 to 11.5 pounds since 1981; in China, it has increased from 33.1 to an astonishing 115.5 pounds. This result has nothing to do with principle and everything to do with prosperity.

The internet has played a role in the increasing numbers of vegetarians and, particularly, vegans in the past decade or so (Kahne *et al*. 2015). As The Guardian noted in 2016, "[t]he number of vegans in the UK has risen by 350 per cent in the past decade – a movement driven by the young". One study of non-vegetarian Australians found that "the primary perceived barrier for both men and women was the enjoyment of eating meat (78 per cent), following by the unwillingness to change one's eating habits (56 per cent), the belief that humans are meant to eat meat (44 per cent), that one's family eats meat (43 per cent), and lack of knowledge about vegetarian diets (42 per cent)" (Ruby 2012, pp. 142-143). Beef + Lamb NZ outlined how in 2016, "Vegan/vegetarian are talked about more than Coca Cola in social media, with 4.6 million mentions (vegan/vegetarian) to 4.1 million mentions (Coca Cola)".[143]

As well as a trend towards vegetarianism/veganism, there has also a growing anti-red meat movement, with a concomitant increase in white meat consumption. This is based partly on a number of studies that have shown a variety of health issues associated with red meat consumption as well as the difference in climatic impacts between rearing red and white meats.[144] Also, in previous decades red meat was an indicator of wealth – as the New York Times describes it, "[beef] was a treasured symbol of post-World War II prosperity, set firmly in the center of America's dinner plate".[145] Beef + Lamb NZ conducted research in the US and China on this topic. They found that regarding health, it was thought to "be a medical fact that red meat is bad for you, carcinogenic and bad for the heart, due to widely shared

[143] https://beeflambnz.com/sites/default/files/levies/files/Future%20of%20Meat%20Final%20Report.pdf.
[144] https://www.nytimes.com/2019/09/30/health/red-meat-heart-cancer.html.
[145] https://www.nytimes.com/2019/09/30/health/red-meat-heart-cancer.html.

stats/infographics". They found that US consumers also believed it was full of antibiotics and steroids, was digested slowly, and led to lethargy.[146] Chinese consumers noted that in traditional Chinese medicine, red meat was not to be eaten regularly but should be eaten for some health reasons – the Chinese market were also aware of the carcinogenic and cardiac concerns. Both countries were also concerned regarding animal welfare and environmental impacts, though this was less important in China. Beef + Lamb NZ's findings are summarised in Table 7.1 below:

**Table 7.1: Consumer Attitudes towards Red Meat, United States and China**

| THEME | HEALTH | WELFARE | ENVIRONMENT |
|---|---|---|---|
|  | • Believe it to be a medical fact that red meat is bad for you, carcinogenic and bad for the heart, due to widely shared stats/infographics<br>• Digested slowly leading to lethargy<br>• Full of antibiotics and steroids | • Images and videos have created a view of the red meat industry as dirty and cruel<br>• Low welfare can clash with personal and social values<br>• Concern that poor treatment = unhealthy meat | • A more academic concern, with most aware of the effect on greenhouse gases and a smaller number aware of water and land statistics<br>• Awareness increases as environmental impacts are felt, e.g. the fires in California |
|  | • According to Traditional Chinese Medicine, red meat has to be limited<br>• Aware of Western views on red meat's medical risks (carcinogen etc.)<br>• Often eaten for specific health issues | • Lesser concern compared to Western views, although still present<br>• Increasing awareness of welfare via celebrities | • Very conscious of air pollution<br>• However, lower concern compared to the West<br>• Celebrities could increase awareness |

Source: https://beeflambnz.com/sites/default/files/levies/files/Future%20of%20Meat%20Final%20Report.pdf.

In more recent years, the concept of 'flexitarianism'/'reducetarianism' (flexitarian/flexitarianism from now on) has emerged as a complement to vegetarianism and veganism, though it would not be considered in such a way by vegetarians or vegans. As Derbyshire (2017) notes, a "flexitarian or semi-vegetarian diet (SVD) is one that is primarily vegetarian with the occasional inclusion of meat or fish". The term 'flexitarian' was added to the Oxford Dictionary in 2014, though it was voted word of the year by the American Dialect Study in 2003 and studies on the SVD go back into the nineteen nineties (Derbyshire 2017).[147]

Reports of the numbers of flexitarians are not as reliable as for vegetarians and vegans as they are 'semi' meaning that someone who eats meat five days a week could consider themselves a flexitarian just as someone who only eats meat once or twice a year. That said, Derbyshire (2017) believes that "[t]he trend toward flexitarian diets (FDs) appears to reflect consumers who are "meat-reducers," eating meat within meals on some but not every day of the week". Still, in the UK 21 per cent of people claimed to be flexitarian, while in the US around 31 per cent identify as flexitarian.[148]

The reasons given for being flexitarian include religious restrictions, weight management, health consciousness, animal welfare or animal rights, the environment and personal health (De Backer and Hudder 2014). Often people who have adopted a flexitarian lifestyle will eat higher quality, organic, grass-fed meat.[149] As one expert tells flexitarians, they should:

> [C]onsider how often they consume meat, the quality of this meat, what the animals have been fed and how they have been raised. Over the past decade there has been a dramatic increase in the prevalence of cheap and poor-quality meat options – there is a big difference nutritionally between

[146] https://beeflambnz.com/sites/default/files/levies/files/Future%20of%20Meat%20Final%20Report.pdf.
[147] http://www.americandialect.org/index.php/amerdial/2003_words_of_the_year/.
[148] https://www.theguardian.com/business/2018/nov/01/third-of-britons-have-stopped-or-reduced-meat-eating-vegan-vegetarian-report; https://vegconomist.com/studies-and-numbers/study-says-one-in-three-americans-are-flexitarian/.
[149] https://www.theguardian.com/environment/2019/jan/19/could-flexitarianism-save-the-planet.

> organic, grass-fed meat and $3 sausages. Many of us could benefit from decreasing our consumption of meat, specifically processed foods such as bacon, ham, salami and sausages, which are not only high in sodium but also tend to contain preservatives and additives, sodium nitrate being one of the most common. Sodium and nitrite themselves are not carcinogenic, but nitrite formed from dietary nitrate has been shown to react with dietary amines to form carcinogenic nitrosamines, so it's certainly important to limit your consumption of this preservative.[150]

In the last few years, there have been some big developments with the rise of companies developing meat alternatives such as Impossible Burger and Beyond Meat. There are two key ways of creating meat alternatives: plant-based protein and cultured meat (Slade 2018). Rather than converting people to a strict vegetarian or vegan diet, though they may do this, it has been noted that these alternatives are increasingly being targeted at omnivores "as a means of reducing livestock production, which is one of the largest industrial users of water and land, and a significant source of greenhouse gas emissions" (Slade 2018, p. 428).

The high environmental costs of meat production and the increasingly widespread concerns about the climate are driving this marketing of meat alternatives to omnivores, with numerous reports outlining the importance of consumers reducing their meat consumption (as discussed above). Slade (2018, p. 436) found that when survey participants were asked to choose between an organic beef burger, a plant-based alternative and a cultured meat burger, "if prices were equivalent [and the taste was the same], only 21 per cent of respondents would choose the plant-based burger, and 11 per cent would choose the cultured meat burger". While Slade refers to 'only' 33 per cent choosing a meat alternative, one-third is a relatively high number. Given the scale of investment in this area and the resulting improvements in taste and price, it is not inconceivable that in the near future these become cheaper than meat and, potentially, even more flavoursome. In their study on this trend, Beef + Lamb NZ after noting that currently these were premium options:

> The food industry, including grocery and dining, all believe these alternative proteins are in demand and it is only a matter of time before they achieve mass production to facilitate wider distribution and more competitive pricing. In addition, the casual dining and fast food industry have indicated that once the production is there and when consumer demand hits critical mass, it will not take a lot for them to shift their menus and widely offer these products as alternatives on their menu.[151]

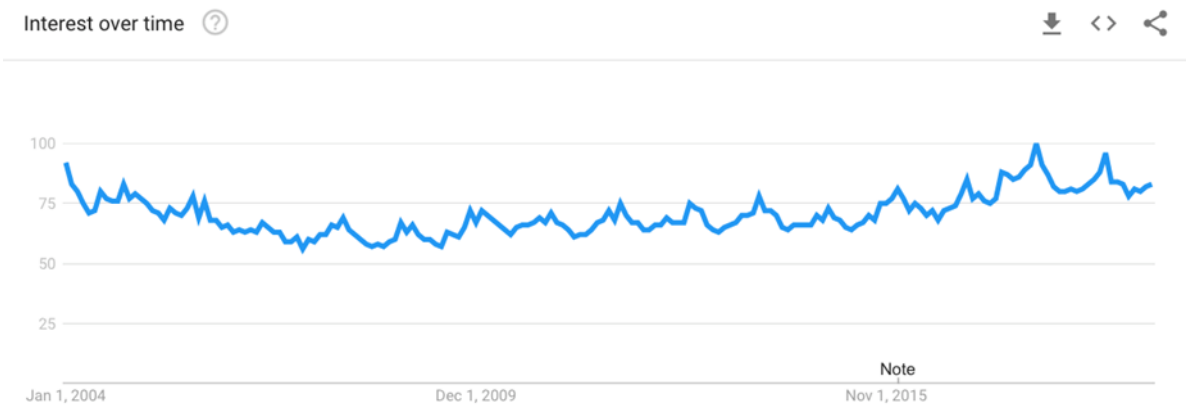
Figure 7.1 shows the results of Google Trend searches for 'vegetarian', 'vegan' and 'flexitarian'.

*Alignments, approaches and issues for Ngāi Tahu*

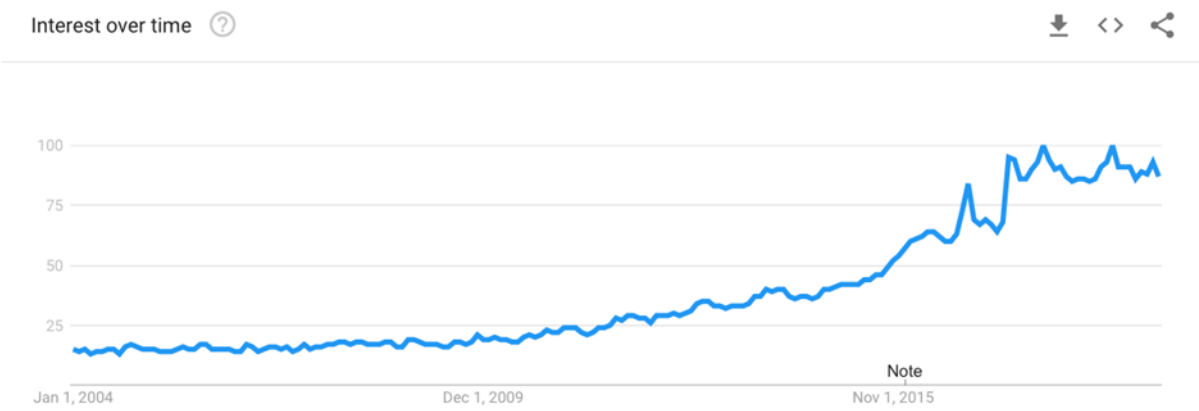
There are several potential angles for Ngāi Tahu food producers to appeal to vegetarians and vegans. Firstly, the most obvious is that any non-animal food products can be marketed to vegetarians and vegans, with the added appeal of emphasising the environmental credos of the Māori worldview and the deep relationships and kinship Māori have with animals, plants and the environment. Several Ngāi Tahu cultural attributes would appeal to vegetarians and vegans, motivated as they are by such a diverse range of factors, including mana, mauri, noa, utu, kaitiakitanga and modern vitalism. Furthermore, as Dunn (2019, p. 55) notes, plant-based diets can be viewed as "an act of decolonialism", which suggests that the resonance between the counter-cultural component of these movements and their rebellion against the dominant structures of power generally and in the agrifood sector specifically could align with the Ngāi Tahu-ness of food. Ngāi Tahu producers of meat should also be wary of the rising concerns about the environmental impacts of meat production.

[150] https://thisnzlife.co.nz/dr-libbys-guide-eating-flexitarian/.
[151] https://beeflambnz.com/sites/default/files/levies/files/Future%20of%20Meat%20Final%20Report.pdf.

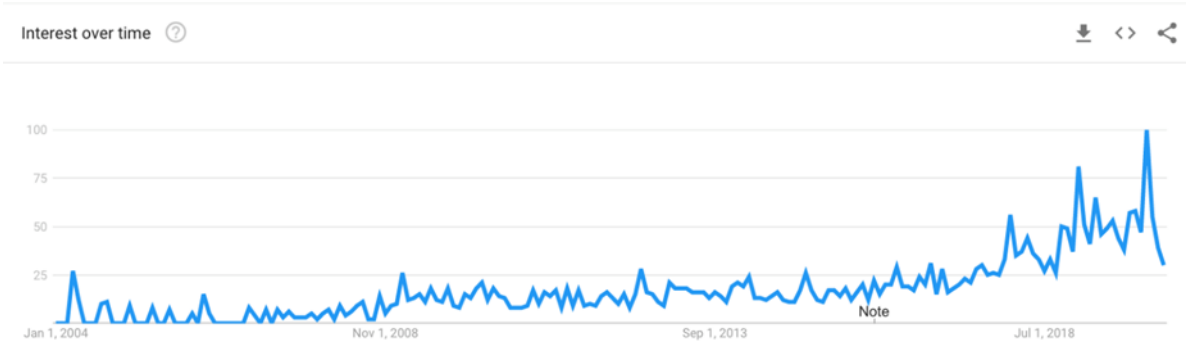
**Figure 7.1: Google Trends for 'Vegetarian', 'Vegan' and 'Flexitarian'**




**(a) Vegetarian**




**(b) Vegan**




**(c) Flexitarian**

There is another avenue available, though it is not that likely to be successful with most vegetarians or any vegans. The treatment of animals is the leading concern amongst vegetarians and while for most the critical aspect here is probably slaughtering the animal the treatment throughout the animals' life is also a concern. The way stock animals are treated in New Zealand is vastly superior to Europe and the US, suggesting that there could be a market at the less restrictive end of the vegetarian spectrum. This is, of course, a fairly risky marketing strategy, and probably not one that would be selected considering the costs associated. Targeting flexitarians would be a more sensible approach as they not only still eat meat but are looking for a higher quality of meat that is often grass-fed, of which the majority of Ngāi Tahu meat is.

The rise of meat alternatives is concerning for meat producers, but Ngāi Tahu, like New Zealand in general, has the advantage when it comes to flexitarians, as they are looking for the higher quality, grass-fed meats when they do eat meat. As an employee at NTF noted, she was not concerned about the rise of flexitarianism:

> *[B]ecause there are so many different consumers out there, for example red meat, I'd say it's gonna be a value add, a high end product in five to ten years, red meat could be entering that upper class, high end Asian market that can afford to pay for a product that is clean and green and grown here in New Zealand and use that image of a fluffy sheep that has been grown here in New Zealand rather than in a feedlot…that is where I see Ngāi Tahu as having a real advantage as we can not only wrap those clean, green values around it but also our cultural values so it is a value add on top of a value add.*[152]

As well as having the same cultural attributes appeal to them as vegetarians and vegans, flexitarians would also likely find the concept of kinaki, or a luxury, as appealing as well.

## 7.2 Organics

The organic food movement developed in the mid twentieth century (Heckman 2006). The "pioneers of the early organic movement were motivated by a desire to reverse the perennial problems of agriculture – erosion, soil depletion, decline of crop varieties, low quality food and livestock feed, and rural poverty" (Kuepper 2010, p. 2). Initially the organic movement focused on a soil management theory called humus farming, which utilised traditional farming practices to conserve and regenerate the soil (Kuepper 2010). Humus farmers "typically avoided, or used very few, synthetic fertilizers" (idem, p. 3). The "term 'humus farming' went out of vogue in the nineteen forties as the term "organic" became more popular" (ibid). The counterculture had a strong influence on organics, "co-opt[ing] what was then a small and rather obscure organic (idem, p. 9). As Kuepper (2010, pp. 9-10) notes:

> One very positive residual of the '60s and 70s counterculture was a holistic and enduring vision of what organic agriculture was and how it contrasted with mainstream, industrialized food and farming. This vision is well articulated by Michael Pollan in *The Omnivore's Dilemma*. He writes that there are three pillars or legs to the counterculture vision of organic (Figure 2). The first pillar is environmentally sound farming without the use of synthetics, to produce high quality, safe food (i.e. humus farming). The second is an alternative food distribution system with few middlemen. One bought organic food either directly from the grower or from food cooperatives, buying clubs, or health food stores – never from "industrial food" supermarkets. Last of all, organic food meant whole, fresh food, with minimal processing and no artificial ingredients – 'counter cuisine' for the 'counterculture'.

The organics movement also merged into a wider environmental movement in the 1960s, largely because of the publication of Rachel Carson's highly influential *Silent Spring*, which highlighted the dangers of pesticides (Kuepper 2010). Organic farming was not considered by the mainstream scientific community

[152] Interviewee 34.

until the late 1970s, and two influential publications at the start of the 1980s saw it gain more widespread recognition (idem). While organic farming is said to produce food that is better for human consumption, this is contested, as is the claim that organic crops resist pests. Less controversial are the claims that it is less energy-intensive, has a smaller impact on soil and the wider landscape, and that it sequesters more carbon (idem).

By the 1970s and 1980s, the organic sector was developing standards and certification that set strict criteria and provide assurance to customers that these criteria had been met. Key amongst these was the absolute exclusion of most synthetic pesticides and fertilisers (Kuepper 2010). As Kuepper (2010, p. 10) notes, "[f]rom this time onwards, unfortunately, organic became better known and understood for what it did not allow (synthetic pesticides and fertilizers) than for positive farming practices and environmental benefits they yielded". The "period from 1979 to 1990 may be described as the era of recognition for organic farming at a national level in the USA" Heckman (2010, p. 147). During the 1980s, "organic farming was clearly gaining a new level of legitimacy and recognition" (ibid).

By the 1990s, organics had matured. One significant watershed was the passage of the Federal Organic Foods Production Act of 1990. This marked (Heckman 2006, p. 148):

> [A]n era of accommodation for organic farming in the USA. This Act set out to: 1. establish national standards governing the marketing of organically produced products, 2. assure consumers that organically produced products meet a consistent standard, and 3. facilitate inter-state commerce in both fresh and processed organic foods.

Organics became a big business in the 1990s. "Organic food", Makatouni (2002, p. 345) outlines, "is one of the fastest growing areas of the food market in Europe, Northern America, Australia and Japan". By the start of the twenty first century, organic food was still only around 1 per cent of food sales but was experiencing growth of 20-30 per cent per annum (Makatouni 2002). Hughner *et al*. (2007, p. 94) explain that "[i]nterest in organic food has grown remarkably as consumers and marketers react to popular media about health and environmental effects of pesticides, genetically-modified organisms, and food safety". In the US, by "the end of 2008, the organic sector had grown to a whopping $24.6 billion industry…the organic sector has been growing at roughly 20 per cent a year since 1994. Even during the recession year of 2008, growth was a respectable 17 per cent.

At present the organic sector constitutes about 3.5 per cent of total U.S. food sales, but should these growth rates continue, it could reach 10 per cent in less than a decade" with the term connoting the processes and functions of a farming system rather than the chemical nature of the fertiliser materials used (Kuepper 2010, p. 2). Statista has charted the growth in organic food sales globally from 1999to 2017, reproduced in Figure 7.

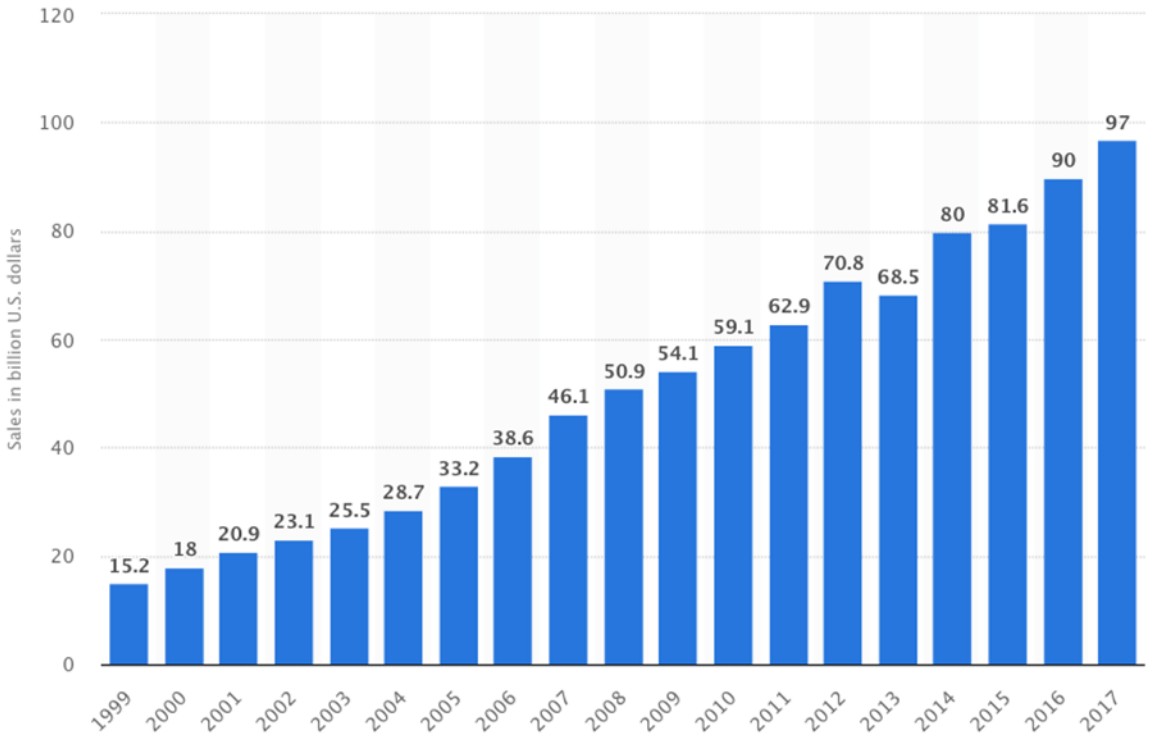
Regular consumers of organic foods (RCOFs) have been examined and the studies suggest that they have several key shared values (Hughner *et al*. 2007, p. 96):

> [A]ltruism (relationship with others), ecology (harmony with the universe and sustainable future), universalism (protection of the welfare of all people and nature), benevolence (enhancing the welfare of people with whom one is in frequent personal contact), spirituality (inner harmony and unity with nature), and self-direction (independent thought and action) have all been connected to regular consumers of organic foods.

Organic food consumption is "often related to an alternative lifestyle that includes active environmentalism, vegetarianism, and/or alternative medicine" (Hughner *et al*. 2007, p. 96). However, while organics are one of the oldest food movements with a connection to environmentalism, as Onozaka *et al*. (2011, p. 583) note:

Organic foods, arguably the most established of the sustainable food categories, may be losing ground competitively due to increasing corporate participation, while other sustainability claims are emerging, such as 'locally produced' status, fair trade, and information on a product's carbon footprint.

**Figure 7.2: Worldwide Sales of Organic Food, 1999 to 2018 (Billions of U.S. Dollars)**




*Source*: https://www.statista.com/statistics/273090/worldwide-sales-of-organic-foods-since-1999/.

Most RCOFs purchase organic food for health reasons, as synthetic pesticides and fertilisers are seen as having negative health impacts. Other motivations included better taste, free from GE and food additives. The main factors prohibiting people from buying organic food are cost, lack of availability, satisfaction with conventional food, lack of trust, limited choice and perceived lack of value (Matakouni 2002). While not specified, Matakouni's summary likely applies to developed nations, but these findings were essentially the same in a study examining Chinese organic consumer's motivations for and against buying organic food (Sirieix *et al*. 2011).

*Alignments, approaches and issues for Ngāi Tahu*

All of the values of organics consumers – altruism, ecology, and universalism through the protection of the welfare of all people and nature, benevolence, spirituality and self-direction – resonate with many Ngāi Tahu BVBs and producers. They would be able to harness these as a means of marketing any organic produce they are selling internationally. Specifically, the cultural attributes of mana, mauri, noa, utu, tino rangatiratanga, tūrangawaewae, kaitiakitanga, kaihaukai, cultural regeneration, indigenous investment, and modern vitalism.

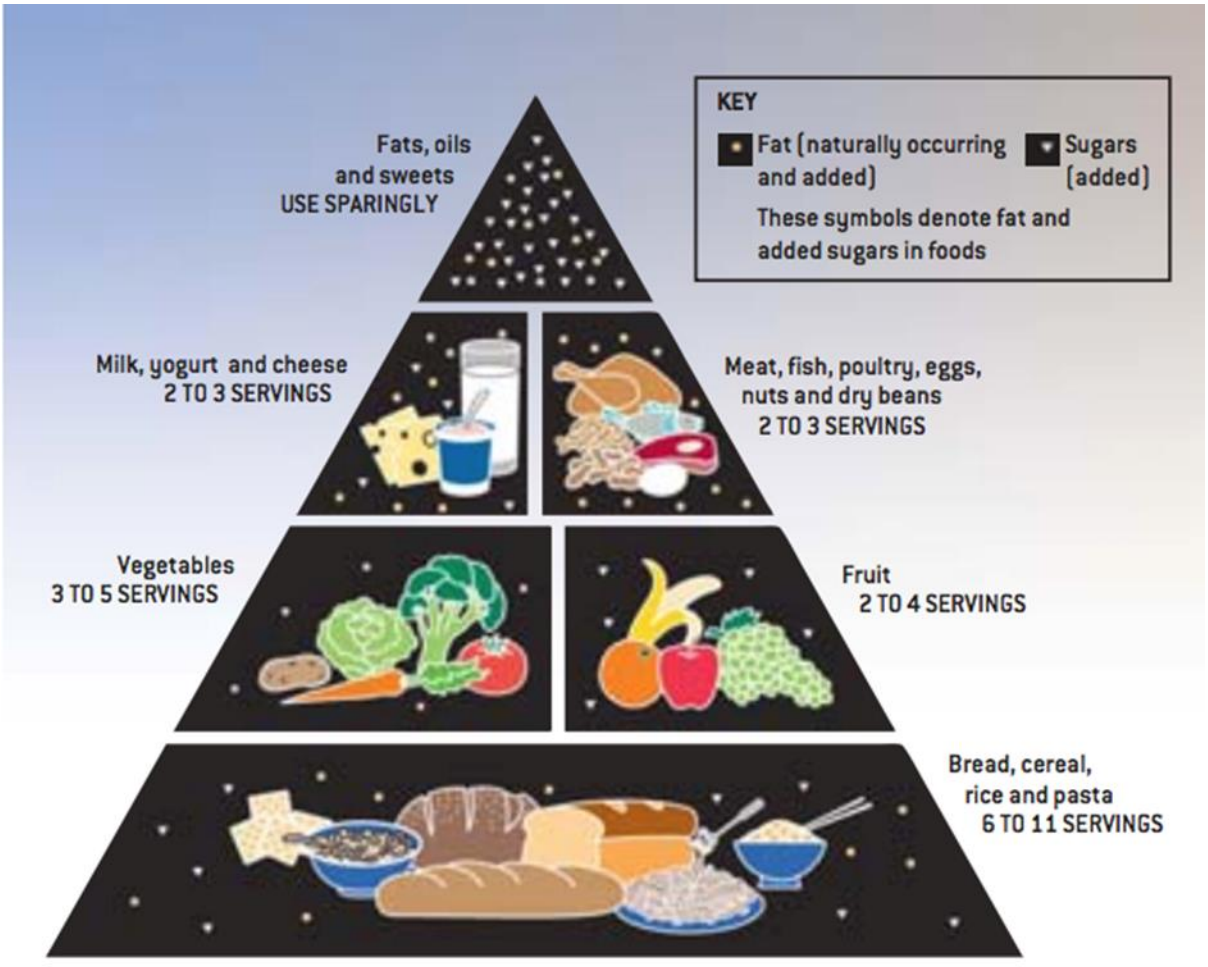
## 7.3 The Food Pyramid

The food pyramid concept was developed in the 1970s in Sweden, and was introduced in the US in 1992. The pyramid has had a powerful influence – and there have been almost as influential inversions that have occurred to this pyramid by later food movements – and it still has a strong sway on consumer decision making (Davis *et al*. 2001). It emerged out of decades of increasing state food guidance systems (idem). The classic US food pyramid was "intended to help the American public make dietary choices that would maintain good health and reduce the risk of chronic disease" (Willet and Stampfer 2003, p. 66). The pyramid has three levels (see Figure 7.3).

At the bottom level are foods that should be eaten most often, and the top are foods that should be eaten the least often. The original US food pyramid recommended (Willet and Stampfer 2003, 66):

> [P]eople should minimize their consumption of fats and oils but should eat six to 11 servings a day of foods rich in complex carbohydrates— bread, cereal, rice, pasta and so on. The food pyramid also recommended generous amounts of vegetables (including potatoes, another plentiful source of complex carbohydrates), fruit and dairy products, and at least two servings a day from the meat and beans group, which lumped together red meat with poultry, fish, nuts, legumes and eggs.

**Figure 7.3: Classic US Food Pyramid**




Source: Willet and Shampfer (2003, p. 66).

Even as the Food Pyramid was being developed, there were questions about its accuracy. After its dissemination, further research critiqued its accuracy (Willet and Shampfer 2003, 66):

> Since 1992 more and more research has shown that the USDA pyramid is grossly flawed. By promoting the consumption of all complex carbohydrates and eschewing all fats and oils, the pyramid provides misleading guidance. In short, not all fats are bad for you, and by no means are all complex carbohydrates good for you.

In fact, much of the information about the relative benefits of polyunsaturated fats versus the risks of saturated fats was known back in the 1970s. The nutritionists in charge of the food pyramid design, however, thought this was too complex for the public and simplified the message to 'fat is bad' which in turn led to the message that 'carbs are good' (Willet and Shampfer 2003, p. 66). When the different roles of low-density lipoprotein (LDL), known as 'bad cholesterol', and high-density lipoprotein (HDL), known as 'good cholesterol' became clear, the pyramid's message became even more problematic (Willet and Shampfer 2003).

The pyramid has been incredibly influential. "Since its release," Davis *et al*. (2001, p. 882) note, "the Food Guide Pyramid has been widely distributed, used, and imitated. It has achieved high levels of consumer awareness, become a component of policy documents, been used as an educational tool and as the basis for dietary assessments and has been adapted to sub-populations and cultures". Nestle (quoted in Davis *et al*. 2001, p. 882) stated that "[b]y any criterion of recognition or dissemination, the Pyramid has been highly influential". Likewise, Willet and Shampfer (2003, p. 70) write that the pyramid "has become an icon of nutrition over the past decade". The pyramid has been a ubiquitous presence in many Western states, shaping the way people purchase and consume. Davis *et al*. (2001, p. 881) quote an interviewee who explained that "[t]he food pyramid is part of the way I was trained growing up. It's in the back of my head when I make choices." A 1997 survey found that roughly two thirds of Americans were aware of the food pyramid while another survey in 2000 focused on primary grocery shoppers had awareness at three quarters (idem).

*Alignments, approaches and issues for Ngāi Tahu*

Ngāi Tahu producers can use the influence of the food pyramid in their approach to international consumers. With regard to meat and dairy, they can emphasise that if a consumer is only going to have a small amount of meat or dairy every day or week, as per the food pyramid, then they should consume the highest quality products. With produce that is at the base of the pyramid, they can obviously stress that their product aligns with the pyramid's recommendations.

## 7.4 Alternative food networks and short food supply chains

Alternative food networks and short food supply chains are somewhat self-explanatory. Respectively, they provide an alternative to the dominant food networks and they shrink the long food supply chains of these dominant food networks. Emerging largely as a response to states increasingly divesting themselves of regulating the agrifood sector and the massive scale of the global agrifood sector, there have been a number of alternatives concepts and systems emerge that provide alternative governance and shorten supply chains (Marsden *et al*. 2000; Morgan *et al*. 2008).

The 'supply chain' concept covers all the activities, functions, roles, and organisations that are engaged in the production, transport and selling of products, all the way from raw materials to final sales point (Saunders *et al*. 2016). With specific reference to primary production it is best viewed as simply as possible. A simple beef or lamb farm supply chain might consist of, running in chronological order: the materials needed for farming, such as fertiliser, stock, machinery; the farming process itself; the

processor; the exporter and importer, if different to the processor; the marketing of the product; and finally sales and after-sales support (Simchi-Levi 1999). The entire supply chain is colloquially referred to using phrases like 'farm gate to plate' and 'beef to burger' (Saunders *et al*. 2016, p. 6).

The purpose of viewing production as a 'chain', for this section at least, is that it provides a framework for examining how the producer can ensure the chain aligns with consumer values and preferences, and how the chain can communicate these back to the producer. This is part of the usefulness of the 'value chain' concept, by looking at the whole supply chain and exploring how to coordinate and integrate it in ways that add value for consumers.

As Saunders *et al*. (2016, p. 6) explain, "the final customer is the arbiter of value, everything done by firms along a value chain should add value to the consumer's experience". Analysis of value chains seeks to determine the "value-adding and value-destroying activities that align with customer value and preferences". While there are many ways of utilising the value chain concept, the discussion here examines two particular systems that have risen in popularity with consumers: alternative food networks (AFNs) and short food supply chains (SFSCs). While these are very similar, with SFSCs most easily understood as a component of AFNs, each is outlined separately before a more general discussion.

AFNs are "food systems that are regarded as being in some way 'alternative' to 'conventional' ways of food provisioning" (Maye and Kirwin 2010, p. 383). They "constitute organized flows of food products that connect people who are concerned with the morals of their consumption practices in some way with those who want a better price for their food, or who want to produce food in ways counter to the dominant (or conventional) market logic" (Maye and Kirwin 2010, p. 383).

Generally speaking, these AFNs are most highly represented in areas such as fair trade, organic, local, regional and speciality foods, and delivered in retail outlets such as farmers' markets and box schemes (Maye and Kirwin 2010). One commonality across various alternative food networks "are their attempts to establish 'closer' or more 'connected' relationships between food producers/production and consumers/consumption, and represent modes of food provisioning which are in various ways different from, or alternatives to, the prevalent, supermarket mode of food provisioning" (Holloway *et al*. 2007, p. 2). AFNs are a 'reterritorialisation' as they "centre around attempts to reclaim some power and legitimacy in food production–consumption by emphasising, for instance, food's aesthetic qualities and the ethical, environmental, social and economic conditions of its production" (ibid).

The growing consumer interest in food provenance offers small-scale producers the ability to develop so called short food supply chains (SFSCs). SFSCs shift food production from industrial modes of production by building new chains that help small and medium-scale enterprises to capture a higher proportion of value of their product (Maye and Kirwin 2010, p. 385). SFSCs also help producers connect with their consumers. The key benefit of SFSCs is that "foods reach the final consumer having been transmitted through a supply chain 'embedded' with value-laden information concerning the mode of production, provenance and distinctive quality assets of the product" (ibid).

Both AFNs and SFSCs emerged in the 1990s as concerns regarding the dominance and scale of the global food behemoths rose, with "a new food politics beginning to fill gaps left by conventional government regulation and with the growing public concern over the provenance and manipulation of foods" (Marsden *et al*. 2000, p. 424). These alternatives have "potential for shifting the production of food commodities out of their 'industrial mode' and to develop supply chains that can potentially 'short-circuit' the long, complex and rationally organized industrial chains" (idem, pp. 424-425). Critically, as Marsden *et al*. (2000, p. 425) explain, AFNs and SFSNs "engender different relationships with consumers".

While AFNs and SFSNs are a largely Western phenomenon, mostly found in the wealthier Western countries, there are resonances within developing countries. One intersection, though not necessarily one that would benefit Ngāi Tahu producers, is that "[o]ne of the basic principles of eating in Ayurveda is to eat as close to the source as possible so that food retains its living intelligence and energy, which is referred to as Prana or life force" (Ganguly 2017). SFSNs would seem to be promoted in India by the need to retain the mauri of the food.

Maye and Kirwin (2010) provide a table, reproduced here as Table 7.2, showing the contrast between conventional and alternative food networks, with SFSNs as a component of AFNs:

**Table 7.2: Contrasting 'Networks' of Food Provision**

| Conventional | Alternative |
|---|---|
| Modern | Postmodern |
| Manufactured/processed | Natural/fresh |
| Mass (large-scale) production | Craft/artisanal (small-scale) production |
| Long food supply chains | Short food supply chains |
| Costs externalized | Costs internalized |
| Rationalized | Traditional |
| Standardized | Difference/diversity |
| Intensification | Extensification |
| Monoculture | Biodiversity |
| Homogenization of foods | Regional palates |
| Hypermarkets | Local markets |
| Agrochemicals | Organic/sustainable farming |
| Non-renewable energy | Reusable energy |
| Fast food | Slow food |
| Quantity | Quality |
| Disembedded | Embedded |

*Source*: Maye and Kirwin (2010).

However, as the authors go on to point out, these binaries are not fixed and, amongst other changes, supermarkets are becoming increasingly interested in AFNs. One of the reasons for the growing interest in AFNs by consumers, and thus supermarkets, is that there is growing interest in where food comes from (Maye and Kirwin 2010). This connects with provenance (outlined below) as driven, in large part, by "increased consumer anxieties about the safety and quality of industrial food networks, prompted by repeated food scares (e.g. BSE, E. coli and avian influenza)" (idem, 384).

*Alignments, approaches and issues for Ngāi Tahu*

For Ngāi Tahu producers, the important takeaway is that there are increasing numbers of consumers who are looking for foods with all those credence attributes listed in the right column in Table 7.2. Most of which have an immediate resonance with Ngāi Tahu food and producers, particularly craft and artisanal products, traditional, differences and diversity, regional palates, organic and sustainable farming, reusable energy, quality, and embedded. There are Ngāi Tahu producers, like the previously discussed Gravity Fishing, that have shortened the supply chain by supplying restaurants directly.

Some of the credence attributes consumers want from AFNs may seem to be in contrast with the large scale of the operations owned by TRoNT, though this is relative and in comparison to the massive global food giants that AFNs and SFSCs rose up against, TRoNT is small scale. Furthermore, even at the larger end of the spectrum, Ngāi Tahu still possesses many of the desired attributes and it would just be a matter of emphasising these to consumers. In particular, the attributes of mana, utu, tino rangatiratanga, tūrangawaewae, kaitiakitanga, kaihaukai, cultural regeneration, indigenous investment, self-sufficiency, and seasonality would appeal to consumers attracted to AFNs and SFSCs.

## 7.5 Provenance, authenticity, and traceability

Provenance has a long history, though as a contemporary interest it burgeoned in the 1980s. While provenance is often "conflated with place [it] has a much wider meaning" (Morgan *et al*. 2008, p. 4). Specifically, Morgan *et al*. (ibid) identify three dimensions of provenance: a "spatial dimension (its place of origin), a social dimension (its methods of production and distribution), and a cultural dimension (its perceived qualities and reputation)". Provenance is interested, ultimately, in virtually every component of food's history. While the shallow definition of the cultural attributes of food would infer that only the last of these three dimensions is relevant, the reality – as should be clear from the way Ngāi Tahu view food – is that all three are important. The spatial dimension of food for Ngāi Tahu is fundamental, food comes from tipuna, from the whenua. Likewise, the methods of production and distribution are critical, mahinga kai is central to being Ngāi Tahu, and food is distributed in ways that create and maintain social connections. All three are key to the project.

Simply put, authenticity is when a product is seen as 'authentic' by the consumer. In many ways, it can be understood as one of the key desired outcomes of provenance, for the provenance of the food product to be seen as authentic. There are several ways of food being seen as authentic, including brand longevity, stylistic consistency, and quality commitments (Beverland 2006; Starr and Brodie 2016). Here the focus is on cultural authenticity. Casey (2014) explains that cultural authenticity can come from one or more of three key categories: authentic location, authentic technique, and/or authentic producer. These are, essentially, the same three dimensions as provenance, making the connection between the two clear. Cultural authenticity can be achieved from the effective emphasis of one or more of these categories. As with provenance, cultural authenticity is a marketing tool that emphasises 'authentic' location, technique and/or producer to add a premium to a product. If provenance is the story, authenticity is the reception of the story.

Traceability, as the word implies, is about how a consumer can trace a product through the entire supply chain with a high degree of trust, confirming – amongst other things – provenance and authenticity (Moe 1998). As Barling *et al*. (2009, p. 261) explain, "[t]raceability systems that track both physical entities and their less tangible attributes are increasingly widely used in contemporary food supply to meet a range of regulatory and commercial objectives". The perceived transparency of traceability generally comes from a third party that verifies the chain (Hatanaka *et al*. 2005). Food traceability was originally focused on

improving efficiency and ensuring safety, but has grown as consumer interest in provenance and authenticity has developed. Traceability has expanded to be able to deliver more advanced information beyond herds, batches, and logistics (Moe 1998). The problem is that many companies have cynically used the consumer desire for provenance and authenticity, creating false branding and marketing that manipulates these desires, and as a result many consumers are cynical about these claims (Reid and Rout 2016a). Traceability gives provenance and authenticity its heft by helping the consumer verify the claims made by the producers and retailers.

The rise in interest in provenance and traceability was, as noted in the above section on AFNs, driven by "[g]rowing concerns about food safety and nutrition" which lead "many consumers in advanced capitalist countries to demand quality products that are embedded in regional ecologies and cultures" (*Morgan et al*. 2008, p. 8). While nutrition has long been of interest, it was the food scares that cast the scale and dominance of global agrifood chain into stark relief in the 1980s and 1990s that saw these concerns become widespread (Friedberg 2004). These scares, which in the UK went from a salmonella outbreak in 1988 – while serious still relatively mundane – to the Mad Cow Disease outbreak in 1993 – which sowed panic across the country – saw a dramatic rise in interest about the provenance of the food people were eating (Friedberg 2004). However, the influence of increasingly well-connected consumers who have a growing interest in where their food came from across all three dimensions should not be underestimated. As Reid and Rout (2016a, p. 427) note:

> There is increasing interest in food provenance amongst Western consumers. Many reasons drive this demand. In a practical way, provenancing is a mechanism for assuring regulatory bodies and consumers that the food we purchase is safe, and in the case of premium products, that it is of authentic origin. However, on another level, the growth in demand for food provenance is explained as a response to modernity. Through connecting consumers to place, provenancing addresses an anxiety experienced by many Western consumers to the growing physical and psychological abstraction from nature and each other and the resulting ethical and environmental crises that this abstraction has facilitated.

While food safety and nutrition are important, however, there is also a deeper and more emotive issue. People want to know where their food comes from because they have become both physically and psychologically distanced from food production. The modern agrifood sector has intentionally distanced foods from consumers and has used commodity fetishism as manipulate consumer markets (Reid and Rout 2016a). Groves (2001, p. 247) explains:

> Consumers' demand for authenticity is stimulated by their desire for products that can bring an element of differentness to their lives. In addition, authenticity allows individuals to escape the alienation and meaninglessness of modern life. Authentic products therefore are seen as something apart from daily routines, and as such, the purchasing patterns involved may be different, both in form and meaning, from more everyday products.

Provenance and authenticity are a "means of revealing and restoring relationships with the wider world for those alienated by modernity as it helps turn 'food from nowhere' into 'food from somewhere'" (Reid and Rout 2016a, p. 427). People want to know how their food was made, where it comes from, and who made it. While food scares, nutrition and deeper alienation may have been the initial motivations for consumers demanding to be able to trace the provenance and authenticity, several other important drivers emerged during the nineteen nineties including the growing demands for sustainable and ethical production as well as calls for a re-localisation of food (Morgan *et al*. 2008; Reid and Rout 2016a).

*Alignments, approaches and issues for Ngāi Tahu*

All food has provenance, but the importance of provenance is when the consumer is made aware of a correspondence between their values and the food's provenance (Coles 2013). This is particularly important for the Ngāi Tahu-ness of food as they are credence attributes and can only be known through marketing. Provenance marketing, as Reid and Rout (2016a, p. 431) explain "is aimed at informing the consumer of the product's spatial, social, and cultural parameters while contemporary approaches to marketing are often intent on obscuring provenance, of severing the genuine spatial, social, and cultural connections and creating false ones in their stead". It is critical for Ngāi Tahu producers to convey an authentic provenance. This is also a critical component of the Ngāi Tahu relationship to and with food (idem, pp. 432 and 434):

> Food is the product of a nexus of relationships from a place, and as such will be imbued, from a Māori perspective, with unique mauri that comes from its specific whakapapa… interconnected nature of whakapapa, tīpuna, and mauri provides provenance across the three dimensions by connecting the origin of the food with how it is sourced, distributed and understood.

The drive for provenance in food has a deep resonance with core Ngāi Tahu beliefs and values, including mauri, mana, utu, tino rangatiratanga, tūrangawaewae, kaitiakitanga, kaihaukai, cultural regeneration, and indigenous investment. There are some obvious areas where Ngāi Tahu producers can communicate the authentic cultural attributes of their food using traceability to provide provenance. Depending on the food type and how that food type was produced, the producer can use the geospatial, social and cultural components of provenance to emphasise all of the key Ngāi Tahu components of kai. Whakapapa can be expressed as either a geospatial or cultural component, while mauri could be expressed as any of the three.

## 7.6 Low-Carbohydrate, Atkins and Ketogenic Diets

There have been a number of food movements that can broadly be described as low-carbohydrate, including the Atkins diet and the ketogenic, or keto, diet. While O'Connor (2019) notes that "[l]ow-carbohydrate diets have fallen in and out of favor since before the days of Atkins", Atkins was the first to really become widely known and this marks the starting point for this report. It should also be noted that while Atkins and keto are generally referred to as 'diets' they are both more widely promoted as a 'lifestyle' in that they are not something one does for a month or two and then stop but rather continue. These are long term dietary modifications.

Atkins first published his diet in a book in 1972, promoting a low-carbohydrate diet as a means of weight loss. This diet plan had four phases: [153]

- **Phase 1 (Induction).** This phase allows for 20–25 grams of net carbs per day until you are 15 pounds (7 kg) from your goal weight.
- **Phase 2.** During this phase, you consume 25–50 grams of net carbs per day until you are 10 pounds (5 kg) from your goal weight.
- **Phase 3.** Your net carb allowance is raised to 50–80 grams per day until you have met your goal weight and maintained it for one month.
- **Phase 4.** During the final phase, you consume 80–100 grams of net carbs per day for ongoing weight maintenance.

[153] https://www.healthline.com/nutrition/atkins-vs-keto#atkins.

As well as reducing carbohydrate intake, the Atkins diet promotes eating a high level of protein, recommending getting up to 30 per cent of calories through meat intake.[154] The diet, or at least the 'perks' of the diet that were widely promoted, were that "followers of his high-protein diet could eat unlimited meat, eggs, cheese, fish and shellfish".[155] In other words, while carbohydrates were limited, the offset for that was that people were able to eat fatty, cheesy meals as much as they wanted – the chief message from Atkins was 'carbs make you fat', which led to the corollary message, 'fat does not make you fat'.[156]

While his first book was published in the 1970s, his diet did not take off until 2003, after the publication of his second book in 2002, when an estimated one in 11 Americans were following his diet plan, and around 3 million people in the UK.[157] The Atkins diet's massive popularity was probably due to the book's appearance at the same time that the internet was becoming more widespread. As a British Dietetic Association dietician noted, "[h]is second book coincided with the internet, and the 24/7 agenda where everything is widely available".[158] However, by 2005 this 'fad' had passed and only 2 per cent of Americans were using the diet.[159]

The Atkins diet, despite or because of its popularity, promoted widespread criticism, particularly as it seemed to endorse eating fatty foods.[160] As one nutritionist noted, "[p]eople tend to have a rapid response when it comes to weightloss, but Atkins is also known to have one of the greatest rebounds, so people pile the pounds on when they come off it".[161] As a dietician for the British Dietetic Association noted, "[l]ike all diets, when it comes to Atkins, there is some truth in the rumour - there is some underlying scientific evidence - but proof cutting out carbs is the best way to lose weight just isn't there".[162] In their *Lancet* review, Astrup *et al*. (2004, p. 897) noted that the "diet claims to be effective at producing weight loss despite ad-libitum consumption of fatty meat, butter, and other high-fat dairy products". They then suggest that a systematic review of low-carbohydrate diets found that the weight loss achieved is associated with the duration of the diet and restriction of energy intake, but not with restriction of carbohydrates" (idem, p. 898). Indeed (idem, p. 899):

> [The] Apparent paradox that ad-libitum intake of high-fat foods produces weight loss might be due to severe restriction of carbohydrate depleting glycogen stores, leading to excretion of bound water, the ketogenic nature of the diet being appetite suppressing, the high protein-content being highly satiating and reducing spontaneous food intake, or limited food choices leading to decreased energy intake.

Whatever the validity or actual mechanisms of efficacy of the Atkins diet, it is hard to deny that at a certain point it was highly influential and was the first popular diet plan that promoted the low-carbohydrate approach. Its popularity and sudden decline can be seen in the Google Trends search for "Atkin's diet" shown in Figure 7.4.

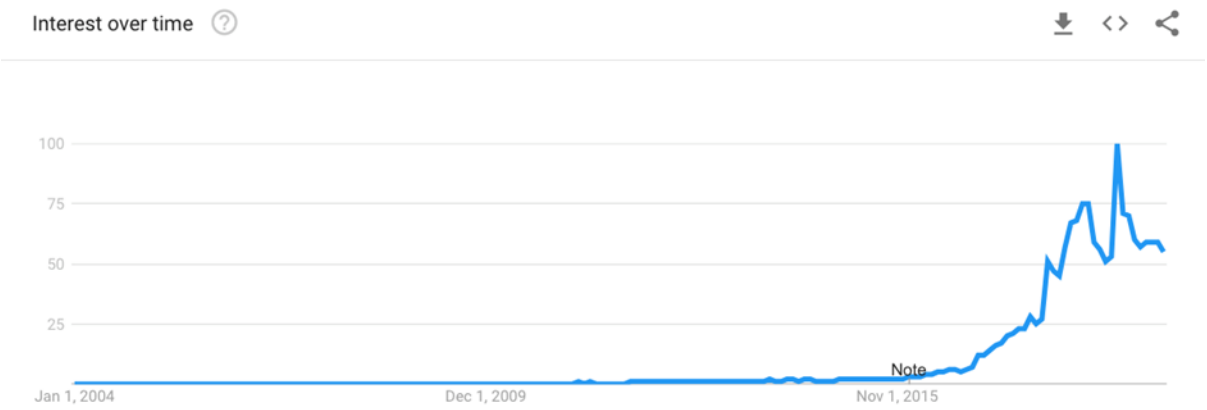
While the Atkins star had faded by 2005, the keto diet became popular from 2017 onward as can be seen in the Google Trends search for "keto diet", also shown in Figure 7.4.

---

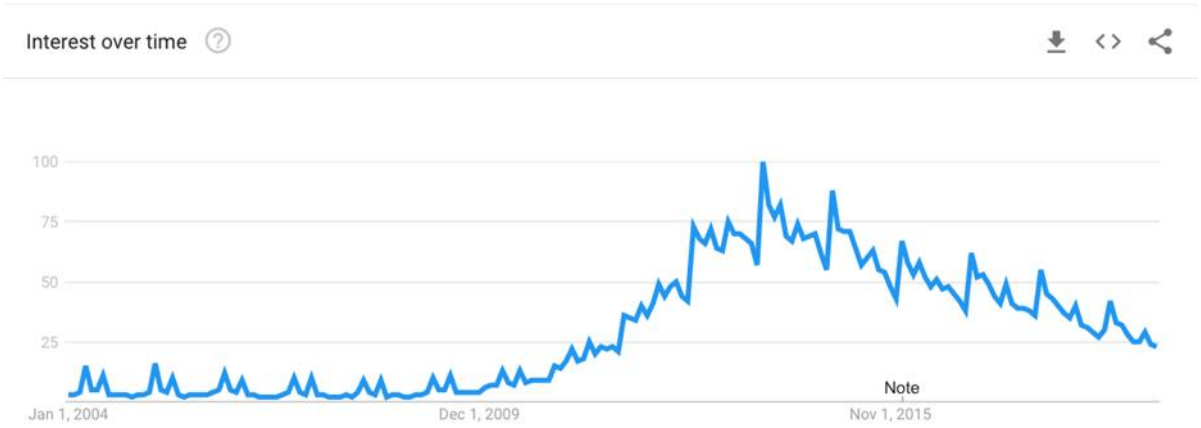
154 https://www.healthline.com/nutrition/atkins-vs-keto#similarities-and-differences.
155 https://www.bbc.com/news/magazine-22145709.
156 https://www.bbc.com/news/magazine-22145709.
157 https://www.bbc.com/news/magazine-22145709; https://www.npr.org/templates/story/story.php?Storyid=4783324.
158 https://www.bbc.com/news/magazine-22145709.
159 https://www.npr.org/templates/story/story.php?Storyid=4783324.
160 https://www.bbc.com/news/magazine-22145709.
161 https://www.bbc.com/news/magazine-22145709.
162 https://www.bbc.com/news/magazine-22145709.

**Figure 7.4: Google Trends for 'Atkin's Diet', 'Keto Diet' and 'Paleo'**


**(a) Atkin's Diet**




**(b) Keto Diet**




**(c) Paleo**

The keto diet was first promoted in the 1990s as a means of helping control epilepsy in children as it precipitated a "fundamental change in the brain's metabolism from that of a glucose-based energy substrate to a ketone-based substrate" (Swink *et al*. 1997, p. 297). The goal of the keto diet is to get the body to go into the metabolic state of ketosis, where fat rather than the sugar from carbohydrates is used as the main energy source. In ketosis the body uses ketones, which are compounds made during the breakdown of fat. In order to achieve and maintain ketosis, the general recommendation is to not consume more than 20–50 grams of carbohydrates per day. While the Atkins' diet sees people go ketogenic for a period, the keto diet means people remain in ketosis as long as they are on it. As O'Connor (2019) notes, the "keto diet has been popularized in best-selling books, promoted by celebrities and touted on social media as an antidote to various ailments. Proponents say it causes substantial weight loss and can help those with Type 2 diabetes dramatically improve their blood sugar levels, which fall when people avoid carbs".

*Alignments, approaches and issues for Ngāi Tahu*

Adherents to the keto diet, in particular, would find resonance with several Ngāi Tahu attributes, specifically self-sufficiency, seasonality and kinaki. There are also some key areas where Ngāi Tahu producers could target low-carbohydrate consumers, as these diets involve eating high levels of meat and dairy, which are both products Ngāi Tahu are involved in.

## 7.7 Ancestral health

The Ancestral Health Movement (AHM), or the Paleo diet as it is more commonly known, is a relatively recent food trend, becoming popular in the late 2000s and early 2010s (Chang and Nowell 2016, p. 228). Broadly speaking (Pitt 2016, 35):

> The rationale for the Palaeolithic diet stems from the evolutionary discordance hypothesis – that human evolution ceased 10,000 years ago, and our Stone Age genetics are ill-equipped to cope with our modern diet and lifestyle, leading to the 'diseases of civilisation'. Thus, only foods that were available to hunter–gatherer groups are optimal for human health.

One of the leading proponents of Paleo is Loren Cordain, an evolutionary nutritionist at Colorado State University, who believes it "is the one and only diet that ideally fits our genetic makeup".[163] The Paleo diet recommends that people eat foods such as fresh fruits and vegetables, nuts and seeds, lean meats (particularly grass-fed and organic), fish, and vegetable oils, whilst avoiding grains, legumes, dairy products, refined sugar, salt, potatoes, and all processed foods.[164] Paleo advocates such as Cordain believe "that if we stick to the foods our hunter-gatherer ancestors once ate, we can avoid the diseases of civilization, such as heart disease, high blood pressure, diabetes, cancer, even acne".[165]

It is important to note that there have been major debates about the evidence behind the Paleo diet. While some studies have shown it has an efficacy, others have called this into question (Pitt 2016). Chang and Nowell (2016, p. 228) note that "[u]nlike most historical diet fads, the Paleo diet has roots in anthropological science". Thus, even if there are quibbles about the universal veracity of the diet, it has a foundation in science that most 'trends' do not. However, while some of the founding innovators of the Paleo diet have been scientists, emerging as it did with the explosion of the internet, Paleo has become a battlefield between many biological and medical experts. They warn that the paleo diet is neither an accurate representation of how our ancestors ate nor suits many peoples of different genetic legacies

[163] https://www.nationalgeographic.com/foodfeatures/evolution-of-diet/.
[164] https://www.nationalgeographic.com/foodfeatures/evolution-of-diet/.
[165] https://www.nationalgeographic.com/foodfeatures/evolution-of-diet/.

today. These arguments differ from what might be referred to as amateur experts who have experimented on themselves and used the internet as a platform for promoting this diet among other likeminded individuals (Bry 2015; Pitt 2016). Pitt (2016, p. 38), a medical doctor, concludes:

> [Paleo] is currently overhyped and under-researched. While the claims made by its celebrity proponents are not supported by current evidence, the Palaeolithic diet may be of benefit in the management of various metabolic derangements.

The hype that has driven the Paleo diet remains even though the evidence it is a universal panacea is not as solid – even Pitt notes it has some benefits. The middle ground is probably the most correct. Compared to the modern diets that include large amounts of processed foods made up of refined carbohydrates and saturated fats, the Paleo diet has many benefits but that this utility varies depending on your genetic makeup as many humans have evolved to suit diets that include carbs and dairy.

Another interesting issue that emerges out of the Paleo diet is its conflict with the food pyramid. With its message of 'fats are bad' and 'carbs are good', the food pyramid has an almost diametrically opposed nutritional message. In their book on Paleo for athletes, Cordain and Friel (2012, p. 7 and p. 11) devote an entire section to comparing and contrasting the food pyramid and the Paleo diet, referring to the former as the "same diet that many scientists believe is responsible for the obesity epidemic" and a "botched bit of advice". The 'celebrity chef' and Paleo advocate Pete Evans says "we should invert the pyramid: instead of grains sitting at the base, being eaten the most, they should be at the tip and eaten the least".[166] "A good diet should feature healthy fats, vegies and herbs in the 'eat most' category", Evans continues. "Next is high-quality proteins from free-range animals and sustainable seafood, followed by a moderate amount of fruits, nuts and seeds". The Paleo diet seeks to take on the most influential piece of nutritional advice in the West.

Stapell (2013, p. 1) explains that while many different types of people adopt the AHM lifestyle, two types stand out:

> First, there are those who are sick or unhealthy, and for whom conventional medicine has failed. This is the most important motivation, and represents the majority of individuals in the paleo movement. Second, there are those people who are seeking performance, usually physical or mental performance. These people are attracted to the ancestral health movement because they are "optimizers." They are trying to find the best way to do things: the best way to eat, the best way to work out, and the best way to optimize their overall health and performance.

As he notes, roughly 53 per cent of those who responded to a survey said the reason they had adopted AHM was due to health. In the US, 75% of people on a Paleo diet hold a Bachelor's degree or higher, 2.5 times the national average, likewise, 44% of respondents had an income of $100,000 or more, which is also 2.5 times the national average (Stapell 2013). Lieper (2019) also notes the confluence between Paleo and 're-wilding' which brings together ancestral health with sustainability motivations. "Re-wilding", Lieper (2019, p. 123) explains, "is a relatively new conservation discipline that emerged from the larger framework of restoration ecology that acknowledges the co-production of nature by human and non-human actors and emphasizes the conscious and conscientious intervention of humans to restore and maintain healthy ecosystems". Lieper continues, the "Paleo Diet and its corresponding health movement emphasize the importance of re-wilding the gut microbiome and the body's ecosystem more generally through dietary and lifestyle interventions" (ibid). While the primary motivation for most on the diet is weight loss, it encompasses a more diverse array of motivations that include environmentalism and the urge to life 'more naturally'.

[166] http://www.stuff.co.nz/life-style/food-wine/food-news/10472260/Celeb-chef-says-invert-the-food-pyramid.

As can be seen from Figure 7.4 above, the term 'Paleo' peaked on Google Trends in 2014 but remains strong to date.

*Alignments, approaches and issues for Ngāi Tahu*

There are a number of resonances between Ngāi Tahu cultural attributes and Paleo, particularly for those who have a deeper motivation than losing weight, including mauri, mana, kaitiakitanga, self-sufficiency, seasonality and kinaki. While not every Paleo adherent would find these appealing, there is a segment that would.

The wider connection between the Paleo diet and Ngāi Tahu kai is also clear, as Paleo is based on 'indigenous' diets. Ngāi Tahu were eating a form of the Paleo diet up until contact and colonisation, making the ability to connect Ngāi Tahu producers and Paleo consumers a relatively easy proposition. In their article Cordain *et al*. (2005) use a Māori example when outlining the Paleo diet, discussing how Māori 'lost' the salt habit of their Polynesia brethren. Likewise, in a later book, Cordain and Friel (2012) use one of Cook's descriptions of Māori to emphasise how healthy they were at the point of contact. A paleo blog refers to an experiment conducted by a Māori All Black, Tane Randall, who got a group of Māori on "a 10 week trial eating the way their ancestors did 150 years ago (pre-European) Meat, seafood, fat and vegetables. The result, diabetes reversing, blood sugar dropping and an 8 kg average weight loss in 10 weeks".[167] After referencing the Cordain and Friel statement about pre-contact Māori health, the blog goes on to explain:

> When Maori changed from a hunter gatherer diet, primarily birds, seafood, wild plants, and kumara (sweet potato), to a diet high in processed grains, sugar, vegetable oils and other modern foods, their levels of obesity, gout and type 2 diabetes has risen enormously. By removing processed grains, vegetable oils high in omega 6, junk foods (bad fats, processed carbs, sugar and chemicals) and returning to the diet that best suits their genetic heritage, this group were able to dramatically improve their health.

As well as being useful for marketing traditional Ngāi Tahu products, Paleo could also be used to sell agricultural products since Ngāi Tahu Farms produces grass-fed meat. New Zealand has been criticised for not using credence attributes such as the grass-fed nature of its produce as means of adding value (Brackenridge 2016). Beef+Lamb NZ, were still stating in 2017 that "[o]n a recent visit to this country, food innovator Mike Lee, the CEO and founder of New York-based based Studio Industries, has highlighted what a great product we have and believes we have the ability to leverage off the grass-fed image".[168] The combination of Ngāi Tahu producing grass-fed meat provides a 'double whammy' marketing opportunity in the Paleo community, with indigenous actors producing a food that is itself highly prized.

[167] https://paleozonenutrition.com/2010/07/07/taine-randell-maori-eating-like-their-ancestors-losing-weight-improving-health-60-minutes/.
[168] https://beeflambnz.com/news-views/telling-grass-fed-story.

# Chapter 8
# Part Two Conclusion

Table 8.1 lists many similarities with Ngāi Tahu cultural attributes of food across international cultures and subcultures. This concluding chapter provides a detailed discussion of each value or concept.

**Table 8.1: The Cultural Credence Attributes of Ngāi Tahu Food and Aligned Consumer Attributes**

| Related Value or Concept | The Cultural Credence Attributes of Ngāi Tahu Food | | Aligned Consumer Attributes | |
|---|---|---|---|---|
| | Indigenous Understanding | Western Understanding | Market Resonances | Similar Concepts |
| **Mana** | Consumption of the food enhances the mana or dignity of the person consuming it and that of the atua domain from which it derives. | Consumption of the food enhances the moral standing of the person consuming it and that of non-human community from it emerges. | Culture: China, India, Japan, New Age<br>Subculture: Vegetarian/Vegan, Organics, ALNs/SFSCs Provenance, Authenticity and Tracing, Paleo | Divine right, mandate of heaven, te/de, shakti, baraka, teotl |
| **Mauri** | Consumption of the food enhances the mauri or vitality of the person consuming it and that of the atua domain from which it derives. | Consumption of the food enhances the health vitality of the person consuming it and that of the non-human-community/ecosystem from which it emerges. | Culture: Hinduism, Taoism, Japan, Korea, New Age<br>Subculture: Vegetarian/Vegan, Organics, ALNs/SFSCs Provenance, Authenticity and Tracing, Paleo | Qi/chi/ki prana, ka, pneuma, élan vital |
| **Noa** | The food is spiritually safe to consume after undergoing a transition from tapu (protected sacred state) to noa (usable sacred state). | The food has been produced, or procured, in a way that observes the intrinsic value and dignity of living and non-living things and is therefore ethically safe to consume. | Culture: Hinduism, Islam, New Age<br>Subculture: Vegetarian/Vegan, Organics | |

| Related Value or Concept | The Cultural Credence Attributes of Ngāi Tahu Food | | Aligned Consumer Attributes | |
|---|---|---|---|---|
| | Indigenous Understanding | Western Understanding | Market Resonances | Similar Concepts |
| **Utu** | The food is formed through a relationship of balance between the atua and tangata whenua, which ensures the mauri and mana of each is enhanced. | The food is formed through a health-creating relationship of mutualism, balance, and respect between humans and the ecological systems that support them. | Culture: Buddhism, Shintoism, Taoism, New Age.<br>Subculture: Vegetarian/Vegan, Organics, ALNs/SFSCs Provenance, Authenticity and Tracing | Ho, dharma, wa |
| **Tino Rangatiratanga** | The food is produced by manawhenua seeking manage-ment over their lands to fulfil their kaitiaki (guardian) obligations to ngā atua. | The food is produced by indigenous people seeking self-determination over their lands and waters to ensure that their non-human relatives (lands and waters) are cared for. | Culture: Hinduism, Shintoism, China<br>Subculture: Organics, ALNs/SFSCs Provenance, Authenticity and Tracing | Food sovereignty |
| **Tūrangawaewae** | The food is produced by those that are deeply related and interconnected with non-human whanaunga from which the food emerges. | The food is produced by those who deeply care for place and have had a long enduring connection to its lands and waters. | Culture: Hinduism, Shintoism, New Age, Spain, Latvia, Ireland, Bulgaria, Italy, Slovakia, Poland, Cyprus, Austria, Portugal, and Greece<br>Subculture: Organics, AFNs and SFSCs, Provenance, Authenticity and Tracing | Place attachment |
| **Kaitiakitanga** | Food that is produced by those guarding the environment for future generations of non-human communities, and in turn feeling guarded and supported by them. | The food is produced by those who feel an obligation to act as stewards and guardians of the lands and waters from which the food derives. | Culture: Western cultures, Hinduism, Buddhism<br>Subculture: Vegetarian/Vegan, Organics, ALNs/SFSCs Provenance, Authenticity and Tracing, Paleo | Sustainability, green consumers |

| Related Value or Concept | The Cultural Credence Attributes of Ngāi Tahu Food | | Aligned Consumer Attributes | |
|---|---|---|---|---|
| | Indigenous Understanding | Western Understanding | Market Resonances | Similar Concepts |
| **Manaakitanga** | Food that is provided to grow, support, and nurture the mana and welfare of those consuming it. | Food that is provided to grow, support, and nurture the moral standing and welfare of those consuming it. | Culture: Middle East/Arabic, India, New Age<br>Subculture: | Hospitality, diyāfah |
| **Whanaungatanga** | Food from communities that uplift and enhancing kinship ties between people and the environment so that both may flourish. | Food from communities that uplift and enhancing kinship ties between people and the environment so that both may flourish. | Culture: Middle East/Arabic, India | Hot/collectivist cultures |
| **Kaihaukai** | The food comes from methods of exchange that acknowledge the tapu/sanctity of whānau-to-whānau and community-to-community connections and relationships. | The markets and supply chains from which the food derives are built on ethical relationships of care, trust, and respect | Culture: Australia; the Netherlands; Ireland; Canada; Sweden; France; Switzerland; USA; Germany; UK. Norway; Denmark; Luxembourg; Austria; Finland; Sweden; Ireland.<br>Subculture: Organics, AFNs and SFSCs; Provenance, Authenticity and Tracing | Fair trade |
| **Self-sufficiency** | The food has been sourced by traditional hunter-gatherers who have a strong connection with the ecosystems in which they operate. | | Culture: US, Canada, Ireland, Sweden, Norway, Denmark, Finland.<br>Subcultures: AFNs and SFSCs, Keto, Paleo | Hunting and fishing |
| **Seasonality** | The food is produced by those with a history of travel, enterprise, and movement with the seasons. Such food is fresh and wild. | | Culture: US, Canada, Ireland, Sweden, Norway, Denmark, Finland.<br>Subcultures: AFNs and SFSCs, Keto, Paleo | Hunting and fishing |

| Related Value or Concept | The Cultural Credence Attributes of Ngāi Tahu Food | | Aligned Consumer Attributes | |
|---|---|---|---|---|
| | Indigenous Understanding | Western Understanding | Market Resonances | Similar Concepts |
| **Kinaki** | The food is rare and a delicacy produced for special occasions only, such as weddings, tangi (funerals), and mana-enhancing tribal exchanges. | | Culture: China, Japan, Korea, Singapore, Germany, Denmark<br>Subcultures: Flexitarian, Keto, Paleo | Luxury foods, specialist foods, adventurous food consumers |
| **Modern Vitalism** | Food that has an attribute of being both contemporary yet produced according to an indigenous wisdom tradition | | Culture: Japan, Korea, China, India, New Age.<br>Subculture: Vegetarian/Vegan, Organics, AFNs and SFSCs, | New Age, Shintoism, Taoism |
| **Cultural Regeneration** | Food that is rare and has an attribute of maintaining cultural practices at risk of extinction | | Culture: Australia; the Netherlands; Ireland; Canada; Sweden; France; Switzerland; USA; Germany; UK. Norway; Denmark; Luxembourg; Austria; Finland; Sweden; Ireland.<br>Subculture: Organics, AFNs and SFSCs, Provenance, Authenticity and Tracing, | Fair trade |
| **Indigenous Investment** | Food that has the attribute of supporting the wellbeing and welfare of indigenous people and their lands and water. | | Culture: Australia; the Netherlands; Ireland; Canada; Sweden; France; Switzerland; USA; Germany; UK. Norway; Denmark; Luxembourg; Austria; Finland; Sweden; Ireland.<br>Subculture: Organics, AFNs and SFSCs, Provenance, Authenticity and Tracing, | Fair trade |

Mana: The concept of mana is a fairly widespread idea, both in its Māori and broader Polynesian forms and in similarity with concepts from other cultures. The parallels between mana and the Chinese te/de are strong and suggest that use of this as a translated concept in the Chinese market would be a useful way of communicating Ngāi Tahu cultural beliefs, values and behaviours. Likewise, there are resonances between mana and Japanese and Indian cultures which could also be used by Ngāi Tahu producers. Mana would likely also resonate with the New Age culture as it is already a relatively well-known concept and it could fit within the loose and flexible belief framework. It would also resonate with a range of subcultures including vegetarian and vegan movements, organic movements, AFNs and SFSCs, provenance, authenticity and tracing and Paleo. Vegetarians and vegans would find the importance of dignity in food supply an important quality, as would organics consumers and Paleo diet adherents. AFNs and SFSCs and provenance, authenticity and tracing consumers would appreciate how mana is a way of connecting the consumer with the producer and the context within which the food was produced. Mana is seen as one of the most powerful concepts when it comes to Ngāi Tau food attributes as it encapsulates much of the other attributes outlined here, meaning it could be used in conjunction with many of them. In particular, mana aligns well with utu, tino rangatiratanga, kaitiakitanga, manaakitanga, whanaungatanga, cultural regeneration, indigenous investment and self-sufficiency. Because of its scope, it is seen as being one of the most critical attributes in communicating Ngāi Tahu cultural attributes.

Mauri: The idea of mauri also seems to have a broad reach across both more traditional ethnic and religious cultures such as Hinduism, Taoism, Japanese and Korean culture, and, again, it also seems to be relatively widespread in the West both within New Age culture and also across the populace more generally. That a significant proportion of the populations in the US and UK, both countries having a strong Christian inclination and some of the most 'modern' in terms of worldview, believe in the idea of a pervasive 'life force' shows how strong and widespread this concept is. Regarding food movements, mauri would likely appeal to vegetarian and vegans as well as organic consumers and Paleo adherents because of its spiritual element as well as its environmental and ethical foci. It would also appeal to consumers of provenance, authenticity, and traceability as it provides its own form of these concepts. Mauri offers Ngāi Tahu producers a powerful means of communicating the provenance of a product – both in terms of the place it is from and the person who produced it as embodied by the mauri the product carries – as well as a useful tool in creating a relationship with the consumer precisely because the product is a 'gift' of mauri from the producer to the consumer. As one of the two fundamental cultural attributes, the mauri of food can be used with many of the other cultural attributes listed here to communicate to different audiences, with values like kaitiakitanga, manaakitanga and whanaungatanga having a clear and powerful connection, as do tūrangawaewae, kaihaukai, indigenous investment, modern vitalism and cultural regeneration. Mauri provides an underpinning concept that can help give all these values greater force and meaning.

Noa: While there is some potential crossover with both Hindu and Islamic concepts, the risks around misunderstanding these complex religious food proscription systems suggests that using them in relation to noa is probably not sensible. These cultures might be able to appreciate what noa means because of their own systems of sacred food. However, because there is no direct correlation with the concept of 'sacred but safe to eat' misunderstandings are an inherent risk. Conversely, because of the 'pick and mix' nature of New Age beliefs, the concept of noa is relatively risk-free and potentially potent for this culture, who would likely find it appealing precisely because of its indigenous origins. It would help validate their belief system to a degree and might add a degree of cachet to it. Likewise, for vegetarians and vegans, as well as organics consumers, who have a more spiritual element to their food habits, the concept of noa would likely hold a degree of appeal as well.

Utu: The centrality of balance and reciprocity of relations is found in Confucianism, Taoism, Shintoism, Hinduism and Buddhism which suggests that these religious cultures would be able to easily understand and appreciate the concept of utu. In both China and Japan, the idea of balance and harmony is also important to food, so this provides an extra means of reinforcing the Ngāi Tahu belief in utu. That said, as the Japanese example shows, while balance and harmony may appear to be commonly held, when the Japanese understanding of 'nature' is factored in there are some major differences that could impact the translation. New Age culture would seem to be a good fit for utu as they would no doubt understand the more spiritual elements of relating to nature and finding harmony and balance. Vegetarians and vegans as well as organic consumers would also find the spiritual elements appealing.

Tino Rangatiratanga and Tūrangawaewae: These two concepts, and the underlying belief in whakapapa, are shared by several cultures. For the whakapapa elements of these concepts, both Buddhism and Shintoism have similar ways of viewing their relationship with nature, as does the New Age subculture. Regarding the sovereignty component of tino rangatiratanga, while the use of the food sovereignty as a framing mechanism is imperfect it does capture much of the core element of the Ngāi Tahu attribute. It is felt that many Latin American countries would appreciate the concept, as would many of the European states who hold strong food cultures. Likewise, because of its recent history of agricultural collectivisation and more recent return to individual control, many in China would also appreciate tino rangatiratanga. At the subculture level, it is felt that consumers attracted to alternative food networks and short food supply chains would also appreciate tino rangatiratanga as they have an appreciation for food that is a product of an ethical producer. Regarding tūrangawaewae, it seems that many European states, particularly Italy, Slovakia, Poland, Cyprus, Austria, Portugal and Greece, would have an affinity with the concept. Likewise, both the US and Australia would possibly be receptive to this though the spiritual elements would probably need to be played down in favour of the more emotional components. While China is identified as not having a particularly high place attachment, this does not mean that the concept of tūrangawaewae would not have resonance. At the subculture level, organics, AFNs and SFSCs and provenance, authenticity and traceability would all likely find these concepts in alignment as they all seek to understand the context of the food, and tino rangatiratanga and tūrangawaewae both help to provide insights regarding the producers and origins of the food.

Kaitiakitanga: The ethic of care and guardianship for the environment that is encapsulated by the term kaitiakitanga has a powerful reach in the modern world, though of course the idea of sustainability is complex and there are many different interpretations and manifestations. Still, three quarters of respondents to the World Values Survey thought that humans should coexist with nature shows that a majority of consumers would have an affinity with the Ngāi Tahu understanding of kaitiakitanga. However, precisely because of this widespread salience and the growing use of sustainability as a means of marketing food that Ngāi Tahu producers would be best to not rely on this as their main means of connecting with consumers. It is advised that rather they use kaitiakitanga in conjunction with the other components of Ngāi Tahu cultural attributes, like mana and mauri as this way they will be able to create a point of difference from the numerous other brands promoting their 'greenness'. With regard to subcultures, kaitiakitanga would probably appeal to a number of these, including organics, vegetarian/vegan, alternative food networks and short food supply chains, as well as provenance, authenticity and tracing and paleo consumers, as all of these consumers are often motivated by environmental aspects.

Manaakitanga: Sharing food is also widespread as a value in a number of cultures. While in the West this value has largely atrophied, or at the least seen a dramatic decrease from a communal aspect that included strangers to being very much limited to a close circle of friends and family, sharing food still has some resonance. Beyond the West, food sharing – even with strangers – is a central component of Middle

Eastern/Arabic culture, with this value being emphasised despite the dramatic modernisation the region has experienced. Likewise, in India food-sharing is seen as, vital, with some restrictions originating in the caste system. Across much of the rest of Asia, including China, food and drink sharing are also important, with the need to create or nurture relationships as a driving force. The New Age culture would like find appeal in this Ngāi Tahu value as well, particularly as there is a heavy communal focus to many threads of the New Age movement.

Whanaungatanga: The importance of relationships is yet another value that has a widespread international appeal. While it is more common in the 'hot' or collectivist cultures, its expression may simply be more restrained in intensity and restricted in scope in individualist 'cold' cultures. Furthermore, as discussed above, the reality appears to be that while these cultures may have become more 'cool' over time many people still want genuine relationships. This provides Ngāi Tahu producers with a powerful means of connecting with consumers, creating that longed-for relationship and expressing their other key beliefs, values and behaviours regarding food. Building relationships with consumers in the 'hot' cultures is seen as being even easier for Ngāi Tahu producers as they instinctively seek out relationships just as Ngāi Tahu do.

Kaihaukai, Cultural Regeneration and Indigenous Investment: While using fair trade to examine these three important Ngāi Tahu concepts is a blunt instrument, it does provide some insight. The expenditure in terms of percentage and per capita shows that the main countries where these concepts would appeal, and be affordable, are: Australia; the Netherlands; Ireland; Canada; Sweden; France; Switzerland; USA; Germany; UK. Norway; Denmark; Luxembourg; Austria; Finland; Sweden; and Ireland. Ways of communicating these three Ngāi Tahu concepts to the various audiences could dovetail on the concept of fair trade as this already has a reasonably high level of awareness and captures much of the same meaning. However, there would also need to be extra communication about how this was different to these key Ngāi Tahu beliefs. As noted above, the use of mana as an underpinning concept could provide this point of difference from normal fair trade. Regarding the subcultures, it is felt that consumers of organics, AFNs and SFSCs and those keen on provenance, authenticity and tracing would find all three of these concepts appealing as they provide a deep connection to the producer and the origin of the food and its wider context as well as searching for a sense of ethical outcomes.

Self-sufficiency and Seasonality: A passion for hunting and fishing, what could be understood as a contemporary manifestation of self-sufficiency and seasonality across cultures, is incredibly strong in many countries. Hunting is not only extremely popular hobbies in many Western countries – particularly the US, Canada, Ireland, and the Nordic states, but it is also often connected with values and beliefs that would resonate with the Ngāi Tahu outlook, such as connection to nature and the desire for self-sufficiency. Often hunters are also in the higher income brackets, making them a good target market. Fishing is even more popular, with significant majorities fishing in most Western countries and an increasing number in developing countries, such as China and India, now fishing as a hobby rather than for subsistence. Just as with hunting, one of the main motivators for anglers is the connection with nature that the hobby provides, again resonating with core Ngāi Tahu values. Ngāi Tahu producers could market their products, particularly meat and fish, by connecting the current product with their hunter-gatherer past and wider environmental and ethical attributes. Both self-sufficiency and seasonality are seen as aligning with the keto and Paleo diets as these are both focused on a balance of foods that fit in with the pre-modern era of consumption, even if neither of these diets strongly prescribes either it is felt that they would hold an appeal. AFNs and SFSCs consumers would appreciate them for a more tangible reason, that they fit within the framework of these alternative methods of sourcing food.

Kīnaki: Focusing on both luxury food markets and adventurous consumers helps to define those who would appreciate kinaki. Regarding the first, it seems that the Asian region, particularly China, Japan,

Korea and Singapore would all appreciate Ngāi Tahu kīnaki. Not just because there are a large number of consumers there with the money and desire to spend it conspicuously but also because they value many items that Ngāi Tahu produce, or in the case of Wagyu beef, could produce. It also seems likely to those who are attracted to products with provenance and authentication would also find these Ngāi Tahu concepts resonant, largely because any Ngāi Tahu kīnaki would need its provenance and authenticity verified.

Modern Vitalism: At the deepest levels of the cultural resonance, modern vitalism, and the underlying animist worldview, has both specific connections to a wide range of different ethno-religious cultures – particularly Hinduism and Shintoism – and can be seen as providing much of the base for the other key resonances such as mana and mauri. People in the West, even those who would not be classified as New Age, have an affinity with many of the animist principles, while many of the key religions in the wider Asian region can be seen as emerging out of an original animist worldview and therefore sharing much of the same 'DNA'. For Ngāi Tahu food producers, this means that there will be some relatively universal ways in which they can communicate aspects of their own animist worldview that will appeal to most consumers around the world. Clearly some of these aspects will have wider appeal than others, but at the core the idea of building relationships between the producer and consumer is a core means by which animist producers can connect with consumers and convey the importance of their worldview. Also, the animist worldview is closely connected with the sustainable use of the environment and ethical treatment of animals, which are also a powerful and popular credence attribute across various international markets. Modern vitalism is seen as appealing to both vegetarian/vegans as well as organics consumers who are more spiritually inclined as it beds in the core understandings such as mana and mauri.

# Bibliography


Anderson, A. (1998). *The welcome of strangers: An ethnohistory of southern Māori AD 1650-1850*. Dunedin: University of Otago Press.

Anderson, A., Binney, J., & Harris, A. (2014). *Tangata whenua: An illustrated history*. Wellington: Bridget Williams Books.

Anton, C. E., & Lawrence, C. (2014). Home is where the heart is: The effect of place of residence on place attachment and community participation. *Journal of Environmental Psychology*, 40, 451-461.

Apostolidis, C., & McLeay, F. (2019). To meat or not to meat? Comparing empowered meat consumers' and anti-consumers' preferences for sustainability labels. *Food Quality and Preference*, 77, 109-122.

Askegaard, S., & Madsen, T. K. (1998). The local and the global: exploring traits of homogeneity and heterogeneity in European food cultures. *International Business Review*, 7(6), 549-568.

Asp, E. H. (1999). Factors affecting food decisions made by individual consumers. *Food Policy*, 24(2-3), 287-294.

Astrup, A., Larsen, T. M., & Harper, A. (2004). Atkins and other low-carbohydrate diets: hoax or an effective tool for weight loss? *The Lancet*, 364(9437), 897-899.

Backlund, E. A., & Williams, D. R. (2004). A quantitative synthesis of place attachment research: Investigating past experience and place attachment. In Murdy, J. (Ed.). *Proceedings of the 2003 Northeastern Recreation Research Symposium*. PA: US Department of Agriculture, Forest Service, Northeastern Research Station: 320-325.

Baker, D. L. (2008). *Korean spirituality*. Honolulu: University of Hawaii Press.

Barling, D., Sharpe, R., & Lang, T. (2009). Traceability and ethical concerns in the UK wheat—Bread chain: From food safety to provenance to transparency. *International Journal of Agricultural Sustainability*, 7(4), 261-278.

Bathgate, M. A. (1969). Maori River and Ocean Going Craft in Southern New Zealand: A Study of Types and Change in Relation to the Physical, Social, and Economic Environment, 1773-1852. *Journal of the Polynesian Society*, 78(3), 344-377.

Bassett, M. H. (2015). *The fate of earthly things: Aztec gods and god-bodies*. Houston: University of Texas Press.

Beaton, S. (2007). A contemporary Māori culinary tradition – Does it exist? An analysis of Māori cuisine. Master thesis, University of Otago, Dunedin.

Becchetti, L., & Rosati, F. C. (2007). Global social preferences and the demand for socially responsible products: Empirical evidence from a pilot study on fair trade consumers. *World Economy*, 30(5), 807-836.

Beckford, C. L., Jacobs, C., Williams, N., & Nahdee, R. (2010). Aboriginal environmental wisdom, stewardship, and sustainability: lessons from the Walpole Island First Nations, Ontario, Canada. *Journal of Environmental Education*, 41(4), 239-248.

Beery, T., Jönsson, K., & Elmberg, J. (2015). From environmental connectedness to sustainable futures: Topophilia and human affiliation with nature. *Sustainability*, 7(7), 8837-8854.

Belich, J. (1996). *Making peoples: A history of the New Zealanders – From Polynesian settlement to the end of the nineteenth century*. London: Allen Lane and Auckland: Penguin Press.

Belk, R. (2009). Sharing. *Journal of Consumer Research*, 36(5), 715-734.

Benton, R., Frame, A., & Meredith, P. E. (Eds.). (2012). *Te Mātāpunenga: A Compendium of References to the Concepts and Institutions of Māori Customary Law*. Te Matahauariki Research Institute, University of Waikato.

Bernard, R. (Undated). Shinto and ecology: Practice and orientations to nature. Yale School for the Environment. https://fore.yale.edu/World-Religions/Shinto/Overview-Essay.

Best, E. (1902). Food products of Tuhoeland: Being notes on the food-supplies of a non-agricultural tribe of the Natives of New Zealand; together with some account of various customs, superstitions, &c., pertaining to foods. *Transactions and Proceedings of the Royal Society of New Zealand*, 35. Retrieved from http://rsnz.natlib.govt.nz/volume/rsnz_35/rsnz_35_00_000660.html.

Best, E. (1929). *Fishing methods and devices of the Māori*. Wellington: E. C. Keating.

Best, E. (1931). Maori agriculture. Cultivated food-plants of the Maori and native methods of agriculture. *Journal of the Polynesian Society*, 40(1), 1-22.

Best, E. (2005). *Māori religion and mythology: Being an account of the cosmogony, anthropogeny, religious beliefs and rites, magic and folk lore of the Māori folk of New Zealand*. Wellington: Te Papa Press.

Beverland, M. (2006). The 'real thing': Branding authenticity in the luxury wine trade. *Journal of Business Research*, 59(2), 251-258.

Beyers, J. (2010). What is religion? An African understanding. *HTS Teologiese Studies/Theological Studies*, 66(1).

Binde, P. (1999). *Bodies of vital matter: Notions of life force and transcendence in traditional Southern Italy*. Gothenburg: Acta Universitatis Gothoburgensis.

Bond, M. (2013, August 21). Exploring the love/hate relationship with Gaia. *New Scientist*. Retrieved from https://www.newscientist.com/article/mg21929311-600-exploring-our-lovehate-relationship-with-gaia/.

Bondy, T., & Talwar, V. (2011). Through thick and thin: How fair trade consumers have reacted to the global economic recession. *Journal of Business Ethics*, 101(3), 365-383.

Borie, M., & Hulme, M. (2015). Framing global biodiversity: IPBES between mother earth and ecosystem services. *Environmental Science & Policy*, 54, 487-496.

Boulton, A., and Brannelly, T. (2015). Care ethics and indigenous values – political, personal and tribal. In Barnes, M. and Brannelly, T. (Eds.). *Ethics of care: Critical advances in international perspective*. Bristol: Policy Press.

Brakenridge, J. (2016) Why are we wasting a good crisis? The value shift our primary sector needs. In Massey, C. (Ed.). *The New Zealand Land & Food Annual: Why are we wasting a good crisis?* Palmerston North: Massey University Press.

Brohm, J. (1963). Buddhism and animism in a Burmese village. *Journal of Asian Studies*, 22(2), 155-167.

Brown, G., & Raymond, C. (2006). *Mapping spatial attributes for conservation and tourism planning, Otways region Victoria: Survey of residents and visitors*. CRCO. Retrieved from http://www.landscapevalues.org/publications/CRCOtwaysreport.pdf.

Brown, G., & Raymond, C. (2007). The relationship between place attachment and landscape values: Toward mapping place attachment. *Applied Geography*, 27(2), 89-111.

Brunsø, K., Fjord, T. A., & Grunert, K. G. (2002). *Consumers' food choice and quality perception*. Working Paper, Aarhus School of Business, Aarhus, Denmark, MAPP Centre.

Bry, D. (2015). What Paleo diet experts think – and why they're wrong. *The Guardian*, August 18. Retrieved from https://www.theguardian.com/lifeandstyle/2015/aug/18/paleo-diet-critics-science.

Buckley, M., Cowan, C., McCarthy, M., & O'Sullivan, C. (2005). The convenience consumer and food-related lifestyles in Great Britain. *Journal of Food Products Marketing*, 11(3), 3-25.

Budruk, M., Thomas, H., & Tyrrell, T. (2009). Urban green spaces: A study of place attachment and environmental attitudes in India. *Society and Natural Resources*, 22(9), 824-839.

Campbell, H. (2009). Breaking new ground in food regime theory: Corporate environmentalism, ecological feedbacks and the 'food from somewhere' regime? *Agriculture and Human Values*, 26(4): 309–319.

Campbell, H. (2015). Spurlock's vomit and visible food utopias: Enacting a positive politics of food. In Stock, P.V., Carolan, M.S. and Rosin, C.J. (Eds.). *Food utopias: Reimagining citizenship, ethics and community*. Oxfordshire and New York: Routledge, pp. 195-216.

Casey, A., Slugoski, B., & Helmes, E. (2014). Cultural authenticity as a heuristic process: An investigation of the distraction hypothesis in a consumer evaluation paradigm. *Food Quality and Preference*, 38, 75-82.

Chalmers, H. (2014, October 30) Ngāi Tahu Farming replaces forestry with 14,000 cows at Eyrewell. *Stuff*. Retrieved from https://www.stuff.co.nz/business/farming/108049548/ngai-tahu-farming-replaces-forestry-with-14000-cows-at-eyrewell.

Chang, M. L., & Nowell, A. (2016). How to make stone soup: Is the "Paleo diet" a missed opportunity for anthropologists? *Evolutionary Anthropology: Issues, News, and Reviews*, 25(5), 228-231.

Chen, J., & Weng, W. (1998). Medicinal food: The Chinese perspective. *Journal of Medicinal Food*, 1(2), 117-122.

Cheung, M. (2008). The reductionist–holistic worldview dilemma. *MAI review*, 3(5), 1-7.

Coles, B. (2013). Space and place. In Jackson, P. (Ed.). *Food words: Essays in culinary culture*. New York: Bloomsbury Academic.

Connolly, J., & Shaw, D. (2006). Identifying fair trade in consumption choice. *Journal of Strategic Marketing*, 14(4), 353-368.

Cooke, S. J., & Cowx, I. G. (2004). The role of recreational fishing in global fish crises. *BioScience*, 54(9), 857-859.

Cordain, L., Eaton, S. B., Sebastian, A., Mann, N., Lindeberg, S., Watkins, B. A., & Brand-Miller, J. (2005). Origins and evolution of the Western diet: health implications for the 21st century. *American Journal of Clinical Nutrition*, 81(2), 341-354.

Cordain, L., & Friel, J. (2012). *The paleo diet for athletes: The ancient nutritional formula for peak athletic performance*. New York: Rodale Books.

Coward, H. (2003). Hindu views of nature and the environment. In Selin, H. (Ed.). *Nature across cultures*. Dordrecht: Springer, 411-419.

Cumberland, K. (1949). Aotearoa Maori: New Zealand about 1780. *Geographical Review*, 39(3), 401-424.

Cutanda, G. A., & Murga-Menoyo, M. Á. (2014). Analysis of mythical-metaphorical narratives as a resource for education in the principles and values of sustainability. *Journal of Teacher Education for Sustainability*, 16(2), 18-38.

Dacker, B. (1994). *Te mamae me ta aroha = The pain and the love: A history of Kai Tahu Whanui in Otago, 1844-1994*. Dunedin: University of Otago Press in association with the Dunedin City Council.

Dahles, H. (1993). Game killing and killing games: An anthropologist looking at hunting in a modern society. *Society & Animals*, 1(2), 169-184.

Dalziel, P. C., Saunders, C. M., Tait, P. R., & Saunders, J. (2018). *Credence attributes and New Zealand country of origin: A review*. AERU Research Report No. 351. Lincoln University: Agribusiness and Economics Research Unit. Retrieved from https://researcharchive.lincoln.ac.nz/handle/10182/11956.

Davis, C. A., Britten, P., & Myers, E. F. (2001). Past, present, and future of the Food Guide Pyramid. *Journal of the Academy of Nutrition and Dietetics*, 101(8), 881.

Davis, J. A. (1995). Family meals: a thing of the past. *Archives of disease in childhood*, 73(4), 356.

Dawson, J. (2013). Retailer activity in shaping food choice. *Food Quality and Preference*, 28, 338-347.

De Backer, C. J., & Hudders, L. (2014). From meatless Mondays to meatless Sundays: motivations for meat reduction among vegetarians and semi-vegetarians who mildly or significantly reduce their meat intake. *Ecology of Food and Nutrition*, 53(6), 639-657.

Degler, C.N. 1991. *In search of human nature: The decline and revival of Darwinism in American social thought*. New York: Oxford University Press.

De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do consumers care about ethics? Willingness to pay for fair-trade coffee. *Journal of Consumer Affairs*, 39(2), 363-385.

Derbyshire, E. J. (2017). Flexitarian diets and health: A review of the evidence-based literature. *Frontiers in Nutrition*, 3, 55.

Dibble, C. E. (1961). Teotl and Ixiptlatli: Some Central Conceptions in Ancient Mexican Religion. Arild Hvidtfeldt. *American Anthropologist*, 63(2), 407-408.

Ditton, R. (2008). Overview. In Aas, Ø. (Ed.). (2008). *Global challenges in recreational fisheries*. Hoboken, NJ: John Wiley & Sons.

Doherty, B., Smith, A., & Parker, S. (2015). Fair Trade market creation and marketing in the Global South. *Geoforum*, 67, 158-171.

Douglas, M., & Gross, J. (1981). Food and culture: Measuring the intricacy of rule systems. *Information* (International Social Science Council), 20(1), 1-35.

Dunford, R. (2017). Peasant activism and the rise of food sovereignty: Decolonising and democratising norm diffusion? *European Journal of International Relations*, 23(1), 145-167.

Dunlap, R. E., & Van Liere, K. D. (1978). The "new environmental paradigm". *Journal of Environmental Education*, 9(4), 10-19.

Dunlap, R. E. (2008). The new environmental paradigm scale: From marginality to worldwide use. *Journal of Environmental Education*, 40(1), 3-18.

Dunn, K. (2019). Kaimangatanga: Maori Perspectives on Veganism and Plant-based Kai. *Animal Studies Journal*, 8(1), 42-65.

DuPuis, E. M., & Goodman, D. (2005). Should we go "home" to eat?: toward a reflexive politics of localism. *Journal of Rural Studies*, 21(3), 359-371.

Durie, M. K. (2011). *He kawa oranga: Māori achievement in the 21st century*. Unpublished doctoral dissertation, Massey University.

Dutch, B. (2000). Should Muslims Become 'Christians'? *International Journal of Frontier Missions*, 17(1), 15-24.

ECan. (N.D.). *Mahinga kai*. Retrieved from https://www.ecan.govt.nz/your-region/your-environment/our-natural-environment/mahinga-kai/.

Espinosa, C. (2014). The advocacy of the previously inconceivable: A discourse analysis of the Universal Declaration of the Rights of Mother Earth at Rio+ 20. *Journal of Environment & Development*, 23(4), 391-416.

EU (2018). Standard Eurobarometer 89. European Union. Retrieved from https://ec.europa.eu/public_opinion/archives/ebs/ebs_346_en.pdf.

Fang, C. H., & Lee, H. J. (2009). Food-related lifestyle segments in Taiwan: Application of the food-related lifestyle instrument. *American Journal of Applied Sciences*, 6(12), 2036-2042.

Fernqvist, F., & Ekelund, L. (2014). Credence and the effect on consumer liking of food–A review. *Food Quality and Preference*, 32, 340-353.

Fletcher, A. (2007). Sanctity, power, and the "Impure sacred": Analyzing Maori concepts of tapu and noa in early documentary sources. *History of Religions*, 47(1), 51-74.

Fikentscher, W. (2004). *Modes of thought: Astudy in the anthropology of law and religion*. Heidelberg: Mohr Siebeck.

Firth, R. (1926). Proverbs in native life, with special reference to those of the Maori. *Folklore*, 37(2), 134-153.

Franklin, A. (1998). Naturalizing sports: Hunting and angling in modern environments. *International Review for the Sociology of Sport*, 33(4), 355-366.

Franklin, A. (2001). Neo-Darwinian leisures, the body and nature: hunting and angling in modernity. *Body & Society*, 7(4), 57-76.

Freidberg, S. (2004). *French beans and food scares: Culture and commerce in an anxious age*. New York, N.Y: Oxford University Press.

Freedman, I. (2016). Cultural specificity in food choice – The case of ethnography in Japan. *Appetite*, 96, 138-146.

Friedmann, H., and P.D. McMichael. (1989). Agriculture and the state system: The rise and fall of national agricultures, 1870 to the present. *Sociologia Ruralis*, 29(2): 93–117

Frost, C. D., & Sullivan, H. (2015). *Functional and luxury foods market analysis*. Adelaide: Department of Primary Industries and Regions, Government of South Australia.

Fruh, S. M., Fulkerson, J. A., Mulekar, M. S., Kendrick, L. A. J., & Clanton, C. (2011). The surprising benefits of the family meal. *Journal for Nurse Practitioners*, 7(1), 18-22.

Ganguly, S. (2017). Making Sustainability Palatable? Changing Practices of Middle-Class Food Consumption in Bangalore. *International Development Policy*, 8(2), https://doi.org/10.4000/poldev.2475.

García-Martín, M., Plieninger, T., & Bieling, C. (2018). Dimensions of landscape stewardship across Europe: landscape values, place attachment, awareness, and personal responsibility. *Sustainability*, 10(1), 263.

Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.

Gilg, A., Barr, S., & Ford, N. (2005). Green consumption or sustainable lifestyles? Identifying the sustainable consumer. *Futures*, 37(6), 481-504.

Gill, S. D. (1991). *Mother Earth: an American story*. Chicago: University of Chicago Press.

Gomersall, K., & Wang, M. Y. (2012). Expansion of Fairtrade products in Chinese market. *Journal of Sustainable Development*, 5(1), 23.

Gould, S. J. (1991). The self-manipulation of my pervasive, perceived vital energy through product use: an introspective-praxis perspective. *Journal of Consumer Research*, 18(2), 194-207.

Grigg, G., Hale, P., & Lunney, D. (1995). *Conservation through sustainable use of wildlife*. Centre for Conservation Biology, University of Queensland.

Groves, A. M. (2001). Authentic British food products: a review of consumer perceptions. *International Journal of Consumer Studies*, 25(3), 246-254.

Grunert, K. G., Brunsø, K., & Bisp, S. (1995). *Food-related life style in Germany*. Working Paper, Institut for Virksomhedsledelse, Aarhus University, Denmark.

Grunert, K. G., Hieke, S., & Wills, J. (2014). Sustainability labels on food products: Consumer motivation, understanding and use. *Food Policy*, 44, 177-189.

Guha, A. (2006). Ayurvedic concept of food and nutrition. University of Connecticut School of Medicine article, 25. Retrieved from https://opencommons.uconn.edu/som_articles/25.

Hargreaves, R. P. (1960). Maori agriculture after the wars (1871-1886). *Journal of the Polynesian Society*, 354-367.

Hargreaves, R. P. (1963). Changing Maori agriculture in pre-Waitangi New Zealand. *Journal of the Polynesian Society*, 101-117.

Harmsworth, G. (1997). Maori values for land use planning. *New Zealand Association of Resource Management (NZARM) Broadsheet*, 97, 37-52.

Hartmann, L. H., Nitzko, S., & Spiller, A. (2017). Segmentation of German consumers based on perceived dimensions of luxury food. *Journal of Food Products Marketing*, 23(7), 733-768.

Harvey, G. (2014). *The handbook of contemporary animism*. London: Routledge.

Hatanaka, M., Bain, C., & Busch, L. (2005). Third-party certification in the global agrifood system. *Food Policy*, 30(3), 354-369.

Hawkes Bay Regional Council (HBRC). (2015). *Mauri monitoring framework: Pilot study on the Papanui Stream*. Retrieved from https://www.hbrc.govt.nz/assets/Document-Library/Publications-Database/4729-SD-15-03-Mauri-Monitoring-Framework-Pilot-Study-on-the-Papanui-Stream-TE-HA-O-TE-WAI-MAREPAREPA.pdf.

Head, L. (2005). Wiremu Tamihana and the mana of Christianity. In Stenhouse, J., & Wood, G. A. (Eds.). *Christianity, modernity and culture: New perspectives on New Zealand history* (Vol. 15). Adelaide: ATF Press, 58-86.

Hecht, J. (2006, August 19). Why doesn't America believe in evolution? *New Scientist*, 191(2565): 11.

Heckman, J. (2006). A history of organic farming: Transitions from Sir Albert Howard's War in the Soil to USDA National Organic Program. *Renewable Agriculture and Food Systems*, 21(3), 143-150.

Hedlund-de Witt, A. (2012). Exploring worldviews and their relationships to sustainable lifestyles: Towards a new conceptual and methodological approach. *Ecological Economics*, 84, 74-83.

Heelas, P. (2006). Challenging secularization theory: The growth of "New Age" spiritualities of life. *The Hedgehog Review*, 8(1-2), 46.

Henare, M. (2001). Tapu, mana, mauri, hau, wairua: A Maori philosophy of vitalism and cosmos. In Grimm, J. (Ed). *Indigenous traditions and ecology: The interbeing of cosmology and community*. Cambridge, MA: Harvard University Press for the Centre for the Study of World Religions, 197-221.

Hēnare, M. (2016). Pacific Region – In search of harmony: Indigenous traditions of the Pacific and ecology. Chapter 14 in Jenkins, W., Tucker, M>E> and Grim, J. (Eds.). *Routledge handbook of religion and ecology*. Abingdon: Routledge, 129-137

Hernández, B., Hidalgo, M. C., Salazar-Laplace, M. E., & Hess, S. (2007). Place attachment and place identity in natives and non-natives. *Journal of environmental psychology*, 27(4), 310-319.

Holland, A. (1999). *Voices of Qi: an introductory guide to traditional Chinese medicine*. Berkeley: North Atlantic Books.

Holloway, L., Kneafsey, M., Venn, L., Cox, R., Dowler, E., & Tuomainen, H. (2007). Possible food economies: a methodological framework for exploring food production–consumption relationships. *Sociologia Ruralis*, 47(1), 1-19.

Hornborg, A. (2006). Animism, fetishism, and objectivism as strategies for knowing (or not knowing) the world. *Ethnos*, 71(1), 21-32.

Houtman, D., & Aupers, S. (2008). The spiritual revolution and the New Age gender puzzle: The sacralisation of the self in late modernity (1980–2000). Chapter 5 in Aune, K., Sharma, S. and Vincett, G. (Eds.). *Women and religion in the West: Challenging secularization*. Aldershot: Ashgate, 99-118.

Huang, G., Grunert, K. G., Lu, D., & Zhou, Y. (2015). Chinese urban consumers segmentation based on modified food-related lifestyle (FRL). *Journal of International Consumer Marketing*, 27(4), 328-343.

Huckle, J. and Martin, A. (2001) *Environments in a changing world*. Harlow, Essex: Prentice Hall

Hughner, R. S., McDonagh, P., Prothero, A., Shultz, C. J., & Stanton, J. (2007). Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of Consumer Behaviour*, 6(2-3), 94-110.

Hutchings, J., Tipene, P., Carney, G., Greensill, A., Skelton, P., & Baker, M. (2012). Hua Parakore: an indigenous food sovereignty initiative and hallmark of excellence for food and product production. *MAI Journal*, 1(2), 131-145.

Isaac, G. (1978). The Food-sharing Behavior of Protohuman Hominids. *Scientific American*, 238(4), 90-109.

Ishii, S. Klopf, D., and Cooke, P. (2015). Worldview in intercultural communication: A religio-cosmological approach. In Samovar, L. A., In Porter, R. E., McDaniel, E. R., & Roy, C. S. (Eds.). *Intercultural communication: A reader*. Boston: Wadsworth Cengage Learning, 28-35.

Jackson, A. (2013). A discursive analysis of rangatiratanga in a Mäori fisheries context. *MAI Journal*, 1(2), 3-17.

Jenkins, T. N. (2002). Chinese traditional thought and practice: lessons for an ecological economics worldview. *Ecological Economics*, 40(1), 39-52.

Kahne, J., Middaugh, E., & Allen, D. (2015). Youth, new media, and the rise of participatory politics. In Allen, D. and Light, J.S. (Eds.). *From voice to influence: Understanding citizenship in a digital age*. Chicago: University of Chicago Press, 35-58.

Kamali, M. H. (2013). *The Parameters of Halal and Haram in Shari'ah and the Halal industry* (Vol. 23). Washington: International Institute of Islamic Thought.

Karlström, A. (2005). Spiritual materiality: Heritage preservation in a Buddhist world? *Journal of Social Archaeology*, 5(3), 338-355.

Kashim, M. I. A. M., Alias, M. N., Zin, D. M. M., Said, N. L. M., Zakaria, Z., Salleh, A. D., & Jamsari, E. A. (2018). Istihalah and its effects on food: An Islamic perspective. *International Journal of Civil Engineering and Technology*, 9(1), 755-762.

Kearney, R. E. (2002). Recreational fishing: value is in the eye of the beholder. In Pitcher, T.J. and Hollingworth, C.E. (Eds.). *Recreational fisheries: Ecological, economic and social evaluation*. Oxford: Blackwell Science, 17-33.

Keene, H. (2007). The catch. *Te Karaka*, 37 (Raumati/Summer), 14-23, accessed at https://ngaitahu.iwi.nz/wp-content/uploads/2013/09/TeKaraka37.pdf.

Kemp, K., Insch, A., Holdsworth, D. K., & Knight, J. G. (2010). Food miles: Do UK consumers actually care? *Food Policy*, 35(6), 504-513.

King, A. S. (2012). Krishna's prasadam: "eating our way back to godhead". *Material Religion*, 8(4), 440-465.

King, N., Lake, R., and Kerr, G. (Undated). *Wild food*. Landcare Research. Retrieved from https://www.landcareresearch.co.nz/__data/assets/pdf_file/0008/77048/2_2_King.pdf.

Kira, G. (2017). A utopia of food systems. In Massey, C. (Ed.). *New Zealand Land & Food Annual 2017* (Vol. 2), Palmerston North: Massey University Press, 63-80.

Kirchner, J. W. (2002). The Gaia hypothesis: Fact, theory, and wishful thinking. *Climatic Change*, 52(4), 391-408.

Kirikiri, R. and Nugent, G. (1995). Harvesting of New Zealand native birds by Māori. In Grigg, G.C., Hale, P.T. and Lunney, D. (Eds). *Conservation through sustainable use of wildlife*. Brisbane: University of Queensland Centre for Conservation Biology, 54-59.

Kitson, J. C., & Moller, H. (2008). Looking after your ground: Resource management practice by Rakiura Māori tītī harvesters. *Papers and Proceedings of the Royal Society of Tasmania*, 142(1), 161-176.

Kuepper, G. (2010). *A brief overview of the history and philosophy of organic agriculture*. Poteau, Oklahoma: Kerr Center for Sustainable Agriculture.

Lambert, S. J. (2011). Te Ahuwhenua and the 'Sons' of the Soil': A history of the Maori-Farmer-of-the-Year award. *MAI Review*, 1, http://www.review.mai.ac.nz/mrindex/MR/article/viewFile/342/342-3084-1-PB.pdf.

Lanier, S. A. (2000). *Foreign to familiar: A guide to understanding hot-and cold-climate cultures*. Hagerstown, Maryland: McDougal Publishing.

Lashley, C. (2011). Towards a theoretical understanding. In Lashley, C., & Morrison, A. J. (Eds.). *In search of hospitality: Theoretical perspectives and debates*. Abingdon: Routledge, 1-17.

Leach, H. (2008a). Maori cookery before Cook. RNZ, Macmillan Brown Lecture One. Retrieved from https://www.rnz.co.nz/national/programmes/themacmillanbrownlectures/20080101.

Leach, H. (2008b). Cookery in the colonial era. RNZ, Macmillan Brown Lecture Two. Retrieved from https://www.rnz.co.nz/national/programmes/themacmillanbrownlectures/20080101.

Le Heron, R., & Lewis, N. (2009). Discussion. Theorising food regimes: Intervention as politics. *Agriculture and Human Values*, 26(4), 345.

Lee, M. L., & Sun, T. H. (1995). The family and demography in contemporary Taiwan. *Journal of Comparative Family Studies*, 26(1), 101-115.

Leiserowitz, A. A., Kates, R. W., & Parris, T. M. (2006). Sustainability values, attitudes, and behaviors: A review of multinational and global trends. *Annual Review of Environment and Resources*, 31, 413-444.

Leitch, A. (2003). Slow food and the politics of pork fat: Italian food and European identity. *Ethnos*, 68(4), 437-462.

Leonard, M. (2005). *Takapuneke – the other Waitangi*. Heritage New Zealand. Retrieved from http://resources.ccc.govt.nz/files/thecouncil/meetingsminutes/agendas/2007/September/AkaroaWairewa26th/Clause6Attachment.pdf.

Leopold, A. (1949). *A Sand County Almanac*. Oxford: Oxford University Press.

Lernoud, J., & Willer, H. (2017). The organic and fairtrade market 2015. In Willer, H. and Lernoud (Eds.). *The World of Organic Agriculture 2017*. Research Institute of Organic Agriculture FiBL and IFOAM-Organics International, 143-148.

Leung, K., Koch, P. T., & Lu, L. (2002). A dualistic model of harmony and its implications for conflict management in Asia. *Asia Pacific Journal of Management*, 19(2-3), 201-220.

Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology*, 31(3), 207-230.

Li, X., Kleinhans, R., & van Ham, M. (2019). Ambivalence in place attachment: the lived experiences of residents in danwei communities facing demolition in Shenyang, China. *Housing Studies*, 34(6), 997-1020.

Leiper, C. (2019). The paleo paradox: Re-wilding as a health strategy across scales in the anthropocene. *Geoforum*, 105, 122-130.

Lin, S. Y. (2017). The evolution of food security governance and food sovereignty movement in China: An analysis from the world society theory. *Journal of Agricultural and Environmental Ethics*, 30(5), 667-695.

Liu, X., Xu, G., Li, Y., Hay, I., Zou, X., Tu, X., & Wang, B. (2019). Beyond Place Attachment: Land Attachment of Resettled Farmers in Jiangsu, China. *Sustainability*, 11(2), 420.

Liu, H. (2018). *Place attachment in rapid urbanization areas – A case study of Zhu village*. Masters thesis, Columbia University.

Liu, S., Volcic, Z., & Gallois, C. (2014). *Introducing intercultural communication: Global cultures and contexts*. Thousand Oaks: Sage.

Lokocz, E., Ryan, R. L., & Sadler, A. J. (2011). Motivations for land protection and stewardship: Exploring place attachment and rural landscape character in Massachusetts. *Landscape and Urban Planning*, 99(2), 65-76.

Louis, E. C. (2012). *The Political Ecology of Food Sovereignty Movements in Neoliberal India*. Doctoral dissertation. Honolulu: University of Hawaii at Manoa.

Louis, E. (2015). "We plant only cotton to maximize our earnings": The paradox of food sovereignty in rural Telengana, India. *The Professional Geographer*, 67(4), 586-594.

Lupton, D. (2018). Vitalities and visceralities: Alternative body/food politics in digital media. Chapter 8 in Phillipov, M. and Kirkwood, K. (Eds.) *Alternative food politics: From the margins to the mainstream*, London: Routledge.

Makatouni, A. (2002). What motivates consumers to buy organic food in the UK? Results from a qualitative study. *British Food Journal*, 104(3/4/5), 345-352.

Marinova, D., & Bogueva, D. (2019). Planetary health and reduction in meat consumption. *Sustainable Earth*, 2, Article 3.

Marsden, T., Banks, J., & Bristow, G. (2000). Food supply chain approaches: exploring their role in rural development. *Sociologia Ruralis*, 40(4), 424-438.

Maurer, D. (2002). *Vegetarianism: Movement or moment?* Philadelphia, PA: Temple University Press

Ma, G. (2015). Food, eating behavior, and culture in Chinese society. *Journal of Ethnic Foods*, 2(4), 195-199.

Maye, D., & Kirwan, J. (2010). Alternative food networks. *Sociology of Agriculture and Food*, 20, 383-389.

Maxwell, K. H., & Penetito, W. (2007). How the use of rāhui for protecting taonga has evolved over time. *MAI Review*, 2(2), http://www.review.mai.ac.nz/mrindex/MR/article/download/58/58-69-1-PB.pdf.

Mazumdar, S., & Mazumdar, S. (1993). Sacred space and place attachment. *Journal of Environmental Psychology*, 13(3), 231-242.

McCormack, F. (2008). Moral economy and Maori fisheries. *Sites: A Journal of Social Anthropology and Cultural Studies*, 4(1), 45-69.

Mestdag, I., & Vandeweyer, J. (2005). Where has family time gone? In search of joint family activities and the role of the family meal in 1966 and 1999. *Journal of Family History*, 30(3), 304-323.

Mikaere, A. (1994). Maori women: Caught in the contradictions of a colonised reality. *Waikato Law Review*, 2, https://www.waikato.ac.nz/law/research/waikato_law_review/pubs/volume_2_1994/7.

Millar, H. M. (2015). *He taonga tuku iho te whākarite kaupapa mō ngā māra kai tuturu living indigenous heritage: Planning for Māori gardens*. Master's thesis. Massey University, Palmerston North.

Moe, T. (1998). Perspectives on traceability in food manufacture. *Trends in Food Science & Technology*, 9(5), 211-214.

Moeke-Pickering, T., Heitia, M., Heitia, S., Karapu, R., & Cote-Meek, S. (2015). Understanding Maori food security and food sovereignty issues in Whakatane. *MAI Journal*, 4(1), 29-42.

Moller, H., Kitson, J. C., & Downs, T. M. (2009). Knowing by doing: learning for sustainable muttonbird harvesting. *New Zealand Journal of Zoology*, 36(3), 243-258.

Mordue, T. (2009). Angling in modernity: A tour through society, nature and embodied passion. *Current Issues in Tourism*, 12(5-6), 529-552.

Morgan, K., Marsden, T., & Murdoch, J. (2008). *Worlds of food: Place, power, and provenance in the food chain*. Oxford: Oxford University Press.

Morgan, T. K. K. B. (2006). Waiora and cultural identity: Water quality assessment using the Mauri Model. *AlterNative: An International Journal of Indigenous Peoples*, 3(1), 42-67.

Moser, R., Raffaelli, R., & Thilmany, D. D. (2011). Consumer preferences for fruit and vegetables with credence-based attributes: A review. *International Food and Agribusiness Management Review*, 14(2), 121-142.

Mylan, J. (2018). Sustainable consumption in everyday life: a qualitative study of UK consumer experiences of meat reduction. *Sustainability*, 10(7), 2307.

Nalwamba, K., & Buitendag, J. (2017). Vital force as a triangulated concept of nature and s(S)pirit. *HTS Theological Studies*, 73(3), 1-10.

Narayanan, V. (2001). Water, wood, and wisdom: Ecological perspectives from the Hindu traditions. *Daedalus*, 130(4), 179-206.

Neill, L., Williamson, D., and Berno, T. (2015). Manaakitanga and Māori food: Theoretical perspectives of advancement. *Locale*, 5, 84-101.

Ngāi Tahu ki Murihiku. (2008). *The cry of the people, Te tangi a tauira: Natural resource and environmental iwi management plan*. Accessed at https://www.es.govt.nz/repository/libraries/id:26gi9ayo517q9stt81sd/hierarchy/about-us/plans-and-strategies/regional-plans/iwi-management-plan/documents/Te%20Tangi%20a%20Tauira%20-%20The%20Cry%20of%20the%20People.pdf.

Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and Behavior*, 41(5), 715-740.

Nixon, C. (2003). Ngai Tahu Seafood: A case study in business development. NZ Trade Consortium Working Paper No. 25. Wellington: NZIER.

Ogilvie, G. (1990). *Banks Peninsula: Cradle of Canterbury*. Christchurch: GP Books.

Ohnishi, S. T., & Ohnishi, T. (2009). Philosophy, psychology, physics and practice of ki. *Evidence-Based Complementary and Alternative Medicine*, 6(2), 175-183.

Olivelle, P. (2018). Food and dietary rules. In Olivelle, P., & Davis, D. R. (Eds.). *Hindu law: a new history of Dharmaśāstra*. Oxford: Oxford University Press.

Onozaka, Y., Nurse, G., & McFadden, D. T. (2011). Defining sustainable food market segments: Do motivations and values vary by shopping locale? *American Journal of Agricultural Economics*, 93(2), 583-589.

O'Connor, A. (2019). The Keto diet is popular, but is it good for you? *The New York Times*, 20 August. Retrieved from https://www.nytimes.com/2019/08/20/well/eat/the-keto-diet-is-popular-but-is-it-good-for-you.html.

O'Riordan, T. (2004). Beyond environmentalism: Towards sustainbility. In, Matthews, J. A. and Herbert, D. T. (Eds.). *Unifying geography. Common heritage, shared future*. London: Routledge, 117-143.

Ortega-Villaseñor, H., & González, A. F. O. (2017). Light from the remote past to illuminate our future path. *European Journal of Science and Theology*, 13(4), 181-189.

Oswal, P., Nagarathna, R., Ebnezar, J., & Nagendra, H. R. (2011). The effect of add-on yogic prana energization technique (YPET) on healing of fresh fractures: a randomized control study. *Journal of Alternative and Complementary Medicine*, 17(3), 253-258.

Ourahmoune, N., Binninger, A. S., & Robert, I. (2014). Brand narratives, sustainability, and gender: A socio-semiotic approach. *Journal of Macromarketing*, 34(3), 313-331.

Overmyer, D. E. (1998). *Religions of China: The world as a living system*. Long Grove, Illinois: Waveland Press.

Ozcaglar-Toulouse, N., Shiu, E., & Shaw, D. (2006). In search of fair trade: Ethical consumer decision making in France. *International Journal of Consumer Studies*, 30(5), 502-514.

Palmer, G. B. (1946). Mana—some Christian and Moslem parallels. *Journal of the Polynesian Society*, 55(4), 263-276.

Palmer, G. B. (1996). *Toward a theory of cultural linguistics*. Austin: University of Texas Press.

Patterson, J. (1998). Respecting nature: A Maori perspective. *Worldviews: Global Religions, Culture, and Ecology*, 2(1), 69-78.

Patterson, J. (2000). Mana: yin and yang. *Philosophy East and West*, 50(2), 229-241.

Paul, J., & Rana, J. (2012). Consumer behavior and purchase intention for organic food. *Journal of Consumer Marketing*, 29(6), 412-422.

Pearson, W.H. (1968). *Henry Lawson Among Maoris*. Wellington: A. H. & A. W. Reed.

Pere, R. T. (1997). *Te wheke - A celebration of infinite wisdom*. Wellington: Ao Ako Global Learning NZ Ltd.

Peterson, M. N., Hansen, H. P., Peterson, M. J., & Peterson, T. R. (2011). How hunting strengthens social awareness of coupled human-natural systems. *Wildlife Biology in Practice*, 6(2), 127-143.

Petrie, H. (2013). *Chiefs of industry: Māori tribal enterprise in early colonial New Zealand*. Auckland: Auckland University Press.

Phillips, C., Jackson, A. M., & Hakopa, H. (2016). Creation narratives of mahinga kai: Māori customary food gathering sites and practices. *MAI Journal*, 5(1), 65-75.

Pinkney, A. M. (2020). Prasāda, edible grace. Chapter 22 in Narayanan, V. (Ed.). *The Wiley Blackwell Companion to Religion and Materiality*, Hoboken, NJ: Wiley-Blackwell, 742-779.

Pitt, C. E. (2016). Cutting through the Paleo hype: The evidence for the Palaeolithic diet. *Australian Family Physician*, 45(1/2), 35.

Qian, J., & Zhu, H. (2014). Chinese urban migrants' sense of place: Emotional attachment, identity formation, and place dependence in the city and community of Guangzhou. *Asia Pacific Viewpoint*, 55(1), 81-101.

Raymond, C. M., Brown, G., & Weber, D. (2010). The measurement of place attachment: Personal, community, and environmental connections. *Journal of Environmental Psychology*, 30(4), 422-434.

Revington, M. (2017). Mahinga kai: More than a way of life. In Johnson, E. (Ed). *Kai and culture: Food stories from Aotearoa*. Christchurch: Freerange Press, 11-13.

Reid, J., & Rout, M. (2016a). Getting to know your food: The insights of indigenous thinking in food provenance. *Agriculture and Human Values*, 33(2), 427-438.

Reid, J., & Rout, M. (2016b). Maori tribal economy: Rethinking the original economic institutions. In Anderson, T. (Ed.). *Unlocking the Wealth of Indian Nations*. London: Lexington, 60-83.

Reid, J., & Rout, M. (2018). Can sustainability auditing be indigenized? *Agriculture and Human Values*, 35(2), 283-294.

Reilly, M. P. J. (2004). Whanaungatanga: Kinship. Chapter 6 in Ka'ai, T.M., Moorfield, J.C., Reilly, M.P.J. and Mosley, S. (Eds.). *Ki te Whaiao: An Introduction to Māori Culture and Society*. Auckland: Pearson New Zealand, 61-72.

Rindfleish, J. (2005). Consuming the self: New age spirituality as "social product" in consumer society. *Consumption Markets & Culture*, 8(4), 343-360.

Roberts, M., Haami, B., Benton, R. A., Satterfield, T., Finucane, M. L., Henare, M., & Henare, M. (2004). Whakapapa as a Maori mental construct: some implications for the debate over genetic modification of organisms. *The Contemporary Pacific*, 16(1), 1-28.

Roche, M. (2012). Food regimes revisited: A New Zealand perspective. *Urbani Izziv*, 23(Supplement 2), S62-S75.

Rombach, M., & Bitsch, V. (2015). Food movements in Germany: Slow food, food sharing, and dumpster diving. *International Food and Agribusiness Management Review*, 18(3), 1-24.

Ross, A., Sherman, K. P., Snodgrass, J. G., Delcore, H. D., & Sherman, R. (2016). *Indigenous peoples and the collaborative stewardship of nature: Knowledge binds and institutional conflicts*. London and New York: Routledge.

Rout, M., Reid, J., Te Aika, B., & Davis, R. (2018). *The historic and current pounamu and tītī tribal economies: An analysis of Ngāi Tahu tribal economic institutions*. University of Canterbury, Christchurch: Ngāi Tahu Research Centre.

Rout, M., and Reid, J. (2019). *Tribal economies – Ngāi Tahu: An examination of the historic and current tītī and pounamu institutional frameworks*. University of Canterbury, Christchurch: Ngāi Tahu Research Centre.

Royal, C., and Kaka-Scott, J. (2013). Māori foods – kai Māori - Traditional cooking and preserving. *Te Ara - the Encyclopedia of New Zealand*. Retrieved from http://www.TeAra.govt.nz/en/maori-foods-kai-maori/page-2.

Rubel, P. G., & Rosman, A. (1971). Potlatch and Hākari: an analysis of Maori society in terms of the potlatch model. *Man*, 6(4): 660-673.

Ruby, M. B. (2012). Vegetarianism. A blossoming field of study. *Appetite*, 58(1), 141-150.

Rural News Group. (2016). Standards set high and obtained. Rural News Group, 7 April. Retrieved from https://www.ruralnewsgroup.co.nz/rural-news/rural-management/standards-set-high-and-obtained.

Ruse, M. (2013). *The Gaia hypothesis: Science on a pagan planet*. Chicago: University of Chicago Press.

Russell, K. (2000). *Landscape: Perceptions of Kai Tahu I Mua, Āianei, Ā Muri Ake*. Doctoral dissertation, University of Otago, Dunedin.

Salmon, E. (2000). Kincentric ecology: Indigenous perceptions of the human–nature relationship. *Ecological Applications*, 10(5), 1327-1332.

Sanchez-Sabate, R., & Sabaté, J. (2019). Consumer attitudes yowards environmental concerns of meat consumption: A systematic review. *International journal of environmental research and public health,* 16(7), 1220.

Schaniel, W. C. (2001). European technology and the New Zealand Māori economy: 1769–1840. *Social Science Journal*, 38(1), 137-146.

Schiermeier, Q. (2019). Eat less meat: UN climate-change report calls for change to human diet. *Nature*, 572(7769), 291.

Schumacher, J. N. (1984). Syncretism in Philippine Catholicism: Its historical causes. *Philippine Studies*, 32(3), 251-272.

Sen, C. T. (2004). *Food culture in India*. Westport, Connecticut: Greenwood Publishing Group.

Shao, H. M., & Qi, S. (2007). "Harmony but not sameness": Harmonious ideas of Confucianism, Taoism and Buddhism and its contemporary inspiration. *Journal of Tianjin Normal University (Social Science)*, 2007-05, Article 2.

Shapin, S. (2007). Vegetable love: The history of vegetarianism. *New Yorker*, 22 January, accessed at https://www.newyorker.com/magazine/2007/01/22/vegetable-love.

Shawcross, K. (1967). Fern-root, and the total scheme of 18th century Māori food production in agricultural areas. *Journal of the Polynesian Society*, 76(3), 330-352.

Sills, M. D. (2010). Christianimism: Catholic syncretism in the New World. *Global Missiology*, 2(1), Article 1.

Simmons, D. R. (1969). Economic change in New Zealand prehistory. *Journal of the Polynesian Society*, 78(1), 3-34.

Singh, R. P. (2007). Gaia and ecological awakening: Message of Hinduism for deeper understanding. *Oriental Anthropologist*, 7(2), 213-233.

Sirieix, L., Kledal, P. R., & Sulitang, T. (2011). Organic food consumers' trade-offs between local or imported, conventional or organic products: a qualitative study in Shanghai. *International Journal of Consumer Studies*, 35(6), 670-678.

Sissons, J. (2000). The post-assimilationist thought of Sir Apirana Ngata: Towards a genealogy of New Zealand biculturalism. *New Zealand Journal of History*, 34(1), 47-59.

Slade, P. (2018). If you build it, will they eat it? Consumer preferences for plant-based and cultured meat burgers. *Appetite*, 125, 428-437.

Smith, C. (2012). Earliest Māori diet quite different. Otago Daily Times, 10 July. Accessed at https://www.odt.co.nz/lifestyle/food-wine/earliest-maori-diet-quite-different.

Smith, D. H. (1957). Divine kingship in ancient china. *Numen*, 4(3), 171-203.

Smith, J. (1974). Tapu removal in Māori religion. *Journal of the Polynesian Society*, 40, 43-96.

Sobh, R., Belk, R. W., & Wilson, J. A. (2013). Islamic Arab hospitality and multiculturalism. *Marketing Theory*, 13(4), 443-463.

Soper, R. (2016). Local is not fair: indigenous peasant farmer preference for export markets. *Agriculture and Human Values*, 33(3), 537-548.

Spencer, C. (1996). *The heretic's feast: A history of vegetarianism*. Lebanon, New Hampshire: UPNE.

Spiller, C., Erakovic, L., Henare, M., & Pio, E. (2011). Relational well-being and wealth: Māori businesses and an ethic of care. *Journal of Business Ethics*, 98(1), 153-169.

Stapell, H. M. (2013). Going mainstream or just a passing fad? The future of the ancestral health movement. *Journal of Evolution and Health*, 1(1), 11.

Stead, W. E., & Garner Stead, J. (1994). Can humankind change the economic myth? Paradigm shifts necessary for ecologically sustainable business. *Journal of Organizational Change Management*, 7(4), 15-31.

Stein, K. (2016). *Māori women promoting food sovereignty in Aotearoa (New Zealand)*. Doctoral dissertation, University of Otago, Dunedin.

Stevens, M. J. (2018). 'A defining characteristic of the southern people': Southern Māori mobility and the Tasman world. Chapter 4 in Standfield, R. (Ed.). *Indigenous Mobilities Across and Beyond the Antipodes*. Canberra: ANU Press, 79-114.

Stephenson, J. (2001). Recognising rangatiratanga in resource management for Maori land: a need for a new set of arrangements. *New Zealand Journal of Environmental Law*, 5, 159-193.

Strong, C. (1997). The problems of translating fair trade principles into consumer purchase behaviour. *Marketing Intelligence & Planning*, 15(1), 32-37.

Stubbs, R. J., Scott, S. E., & Duarte, C. (2018). Responding to food, environment and health challenges by changing meat consumption behaviours in consumers. *Nutrition Bulletin*, 43(2), 125-134.

Sutton, D. G. (1986). Māori Demographic Change, 1769-1840: The Inner Workings of "A Picturesque but Illogical Simile". *Journal of the Polynesian Society*, 95(3), 291-339.

Swanson, L. J. (2015). A feminist ethic that binds us to Mother Earth. *Ethics & the Environment*, 20(2), 83-103.

Swink, T. D., Vining, E. P., & Freeman, J. M. (1997). The ketogenic diet: 1997. *Advances in Pediatrics*, 44, 297-329.

Taiuru, K. (2020). Karakia or cultural appropriation. Bogpost 10 March. Accessed at https://www.taiuru.maori.nz/karakia-or-cultural-appropriation/#Blessing_food.

Tam, K. P. (2014). Anthropomorphism of nature and efficacy in coping with the environmental crisis. *Social Cognition*, 32(3), 276-296.

Tau, T.M., Goodall, A., Palmer, D., and Tau, R. (1991). *Te whakatau kaupapa: Ngāi Tahu resource management strategy for the Canterbury region*. Wellington: Aoraki Press.

Tau, T. M. (2001). The death of knowledge: Ghosts on the plains. *New Zealand Journal of History*, 35(2), 131-152.

Tau, T. M., & Rout, M. (2018). The tribal economy. *Journal of New Zealand Studies*, 27, 92-109.

Te Rūnanga o Kaikōura. (2007). *Te Poha o Tohu Raumati*. Kaikōura: Te Rūnanga o Kaikōura.

Te Rūnanga o Ngāi Tahu. (No Date a). Claim history. https://ngaitahu.iwi.nz/ngai-tahu/the-settlement/claim-history/

Te Rūnanga o Ngāi Tahu. (No Date b). Celebrating Te Kerēme - the Ngāi Tahu Claim. https://ngaitahu.iwi.nz/ngai-tahu/te-whakataunga-celebrating-te-kereme-the-ngai-tahu-claim/.

Te Rūnanga o Ngāi Tahu. (No Date c). Ngāi Tahu mahinga kai. https://ngaitahu.iwi.nz/culture/mahinga-kai/.

Te Rūnanga o Ngāi Tahu. (No Date d). Mahinga kai documentary series launched. https://ngaitahu.iwi.nz/our_stories/mahinga-kai-documentary-series-launched/.

Te Rūnanga o Ngāi Tahu. (No Date e). Ngāi Tahu Farming. https://ngaitahu.iwi.nz/investment/ngai-tahu-farming-2/.

Te Rūnanga o Ngāi Tahu. (No Date f). First marine biologist for Ngāi Tahu Seafood. https://ngaitahu.iwi.nz/our_stories/first-marine-biologist-for-ngai-tahu-seafood/.

Te Rūnanga o Ngāi Tahu. (No Date g). From hook to plate. https://ngaitahu.iwi.nz/our_stories/from-hook-to-plate-tk83/.

Te Rūnanga o Ngāi Tahu. (No Date h). Healthy Kai Māori Styles. https://ngaitahu.iwi.nz/our_stories/healthy-kai-maori-styles/.

Te Rūnanga o Ngāi Tahu. (No Date i). Thriving mara kai. https://ngaitahu.iwi.nz/our_stories/thriving-mara-kai/.

Te Rūnanga o Ngāi Tahu. (No Date j). Restoring kai sovereignty. https://ngaitahu.iwi.nz/our_stories/restoring-kai-sovereignty/.

Te Rūnanga o Ngāi Tahu. (No Date k). Kai, garden to plate. https://ngaitahu.iwi.nz/our_stories/kai-garden-to-plate/.

Te Rūnanga o Ngāi Tahu. (No Date l). Kai, an excuse to share. https://ngaitahu.iwi.nz/our_stories/kai-an-excuse-to-share/.

Te Rūnanga o Ngāi Tahu. (No Date m). I am Tiny Metzger. https://ngaitahu.iwi.nz/culture/mahinga-kai/i-am-tiny-metzger/.

Tickell, C. (2004). *Gaia and the human species*. In Lovelock, J. E., Margulis, L., Lovelock, J., & Torres, P. R. (Eds.). *Scientists debate Gaia: The next century*. Cambridge, MA: MIT Press, 223-227.

Tikao, T. T. (1990). *Tikao talks: Ka taoka tapu o te ao kohatu: treasures from the ancient world of the Maori*. Auckland: Penguin.

Tipa, G., & Welch, R. (2006). Comanagement of natural resources: issues of definition from an indigenous community perspective. *Journal of Applied Behavioral Science*, 42(3), 373-391.

Thornton, A. (1998). Do a and o categories of "possession" in Maori express degrees of tapu? *Journal of the Polynesian Society*, 107(4), 381-393.

Tobler, C., Visschers, V. H., & Siegrist, M. (2011). Eating green. Consumers' willingness to adopt ecological food consumption behaviors. *Appetite*, 57(3), 674-682.

Torres, Y. G. (1996). The revival of Mexican religions: the impact of nativism. *Numen*, 43(1), 1-31.

Tregear, E. (1904). *The Maori Race*. Wanganui: AD Willis.

Triandis, H. C. (2018). *Individualism and collectivism*. London, New York: Routledge.

Van Passel, S. (2013). Food miles to assess sustainability: A revision. *Sustainable Development*, 21(1), 1-17.

Victoria, B. (2018). Breath of life. *Aeon*, 18 December. Retrieved from https://aeon.co/essays/shinto-shows-the-debt-to-animism-of-organised-religions-today.

Vidal, J. (2011). Bolivia enshrines natural world's rights with equal status for Mother Earth. *The Guardian*, 10 April. Retrieved from http://www.halsautangranser.se/nyhetsbrev/bolivia_law_of_mother_earth_guardian.pdf.

Wadley, S. (1977). Power in Hindu ideology and practice. In The new wind: Changing identities in South Asia (pp. 133-58).

Waitangi Tribunal (1991). *The Ngai Tahu report*. Wellington: Ministry of Justice.

Waitangi Tribunal (1992). *The Ngai Tahu sea fisheries report*. Wellington: Ministry of Justice.

Wang, P., Liu, Q., & Qi, Y. (2014). Factors influencing sustainable consumption behaviors: A survey of the rural residents in china. *Journal of Cleaner Production*, 63, 152-165.

Warde, A. (2009). Imagining British cuisine: Representations of culinary identity in the Good Food Guide, 1951–2007. *Food, Culture & Society*, 12(2), 151-171.

Waterlander, W. E., Scarpa, M., Lentz, D., & Steenhuis, I. H. (2011). The virtual supermarket: an innovative research tool to study consumer food purchasing behaviour. *BMC Public Health*, 11(1), 589.

Wehi, P., & Roa, T. (2019). *Reciprocal relationships: identity, tradition and food in the Kīngitanga Poukai He Manaakitanga: o te tuakiri, o te tikanga me te kai ki te Poukai o te Kīngitanga*. Retrieved from https://osf.io/preprints/socarxiv/tz746/download.

Wheen, N., & Ruru, J. (2011). Providing for rāhui in the law of Aotearoa New Zealand. *Journal of the Polynesian Society*, 120(2), 169-182

Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest science*, 49(6), 830-840.

Williams, J. (2004). *'E pākihi hakinga a kai: An examination of pre-contact resource management practice in Southern Te Wai Pounamu*. PhD Thesis, University of Otago. Retrieved from http://hdl.handle.net/10523/5198.

Williams, J. (2010). Mahika kai: The husbanding of consumables by Māori in precontact Te Wāipounamu. *Journal of the Polynesian Society*, 119(2), 149-180.

Williams, J. (2016). Kaitiakitanga in Te Wāi Pounamu: Resource management in a New Environment. *Environment and Ecology Research*, 4(6): 310-321

Willett, W. C., & Stampfer, M. J. (2003). Rebuilding the food pyramid. *Scientific American*, 288(1), 64-71.

Wilson, M. (1998).Project F79 Traditional Māori food preparation: A report for the Ministry of Health. Auckland: Institute of Environmental Science and Research. Retrieved from http://www.moh.govt.nz/NoteBook/nbbooks.nsf/0/84BCB0807976AFF5CC256BF2007160E7/$file/traditional-maori-food-preparation.pdf.

Wilson, P. C. (2010). Fair trade craft production and indigenous economies. Chapter 8 in Moberg, M. (Ed). *Fair Trade and Social Justice: Global Ethnographies*. New York: NYU Press, 176-197.

Womack, M. (2009). *The anthropology of health and healing*. Lanham: Rowman Altamira.

Wrenn, C. L. (2019). The Vegan Society and social movement professionalization, 1944–2017. *Food and Foodways*, 27(3), 191-210.

Xiaohong, W. E. I., & Qingyuan, L. (2013). The Confucian value of harmony and its influence on Chinese social interaction. *Cross-Cultural Communication*, 9(1), 60-66.

Ying, P. (2014). Recreational fisheries in China: Theories and planning. *IIFET Conference Proceedings*. Retrieved from https://ir.library.oregonstate.edu/downloads/mk61rj04r.

Young, M. A., Foale, S., & Bellwood, D. R. (2016). Why do fishers fish? A cross-cultural examination of the motivations for fishing. *Marine Policy*, 66, 114-123.

Zaraska, M. (2016). This is why vegetarianism didn't catch on until recently. *Time*, 23 February. Retrieved from https://time.com/4220270/vegetarianism-history-meathooked/

Zou, P. (2016). Traditional Chinese Medicine, food therapy, and hypertension control: A narrative review of Chinese literature. *American Journal of Chinese Medicine*, 44(08), 1579–1594.