Te Hau Mihi Ata Mātauranga Māori and Science – Literature Review on the Interface between Mātauranga Māori and Science

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Contents

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Wānanga is my tradition as much as mātauranga.
Creativity is my tradition as much as knowledge.
- Royal 2006.[1]

Introduction

The Te Hau Mihi Ata: Mātauranga Māori and Science research project (the research project) will explore ways to link mātauranga Māori and western science. The purpose of the research project is to open a new creative knowledge space to unleash innovative thinking and cross-cultural connection that is unique to New Zealand which can be a source of untapped economic, social, environmental and cultural potential. The historic marginalisation of alternative value and knowledge systems has prevented quality engagement and dialogue between these two knowledge systems in New Zealand. The research project will develop, inter alia, a new inter-cultural dialogue process between Māori educated in western-based science and experts in mātauranga Māori.

The interface between these two knowledge systems will be explored through a series of facilitated exchanges to describe the nature of the knowledge gap between mātauranga Māori and western science and will focus on novel biotechnologies as a case study that clearly demonstrates a divergence of views and where transformational thinking has the potential to deliver innovation.

The aim of the research project is to demonstrate the power of the indigenous world view, when bridged to western science, to create innovative technologies, shape the future of science directions, and thus promote the recognition, vitalisation and continued evolution of mātauranga Māori. The objective of the research project is to develop a new group process and tools for dialogue between knowledge systems to facilitate the engagement of mātauranga Māori with science.

The research project will focus on biotechnology in order to build on the contributions of previous research in this science area.[2] Of particular interest to many Māori is the

[1] Royal, C *The Purpose of Education: Perspectives arising from Mātauranga Māori: A Discussion Paper* (Report prepared for the Ministry of Education, Version 4, January 2007) at 5.

[2] Durie, M, 'Mana Tangata: Culture, Custom and Transgenic Research' (Essay for the Bioethics Council, online at http://www.bioethics.org.nz/publications/himan-genes-reflections-jan04) (Accessed 6 September 2006); Mead, A & Tomas, N, 'The Convention on Biological Diversity: Are Human Genes Biological Resources?' in *New Zealand Environmental Law Reporter* (July, 1995) at 127-132; Roberts, M, 'Walking Backwards into the

development of practical ways to facilitate in-depth dialogue to explore opportunities for research at the interface between mātauranga Māori and science which has a uniquely New Zealand innovation potential.

This paper will provide some context for the Mauri holders and others to whet the appetite as it were on some of the literature that is currently available on the important yet contentious area of mātauranga Māori and western science and negotiating a shared knowledge space.

Method

This paper provides a preliminary review of relevant literature pertinent to the research project. The literature provided has been selected for the 'Mauri Holders' (mātauranga Māori experts and Māori scientists) to review so as to provide context for a discussion around negotiating a shared knowledge space where mātauranga Māori and science can constructively engage, share and critique each other to build bridges not barriers in the following key areas (though not exhaustive) of the research project:

- Māori and science;
- Mātauranga Māori;
- Tikanga Māori;
- The impact of science on Māori values;
- Māori and biotechnology;
- Māori and genetic engineering
- Socially and culturally sustainable biotechnology;
- Collaborative research;
- Cross cultural dialogue; and
- Constructive conversations.

Literature Review

i) Māori and Science

1) Walker, M, 'Māori and Science' (Conference Address, *Strategies for the Next Decade: Sovereignty in Action* (School of Māori and Pacific Development, University of Waikato, 1997) at 68-79.

Dr Walker advances an understanding of science and its role in Māori social and economic development, and he identifies reasons why science has not responded well in the past to Māori needs. Science being a major source of new knowledge in society

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Future: Māori views of genetically modified organisms' in *Inaugural Journal of the World Indigenous Nations Higher Education Consortium (WINHEC)* (2005); Royal, C, 'Te Kaimanga: Towards a new vision for mātauranga Māori.' Online at http://www.mkta.co.nz) (Accessed 19 September 2006); Tipene-Matua, B 'Having honest conversations about the impact of new technologies on indigenous people's knowledge and values' (Conference paper, Mātauranga Taketake: Traditional Knowledge Conference, June 2006); and Te Momo, F 'Exposing Diversity: Uncovering common scientific values between biotechnology, Indigenous knowledge and Western knowledge' in *International Journal on Technology, Knowledge and Society* (Vol. 1, No. 6, 2005).

can make tremendous contributions to social and economic development. But for Māori, contrary to the cultivated image of science being culture free searching for universal truths, science has been part of the colonialism process that has seen Māori excluded from many areas of activity, including participation in science and the benefits that science brings to society. Walker also noted that western science encounters the threat of a competing knowledge system which it is uncomfortable with. Western science has worked actively to achieve its central role as producer and keeper of veritable knowledge of the external world. To secure its future, science must secure its patronage, which has required both delivery of promised results and the exclusion of other sources of knowledge from competition for the patronage resource. Hence Indigenous knowledge systems have been deemed 'unscientific' in nature or 'scientifically invalid.'

Furthermore, where the use of the 'unscientific' label has been untenable, the outcome has been appropriation of knowledge by science.

Walker asserts that in order to bring about change in a way that science interacts *with* Māori will require structural adjustments in the funding of science and a significant increase in the numbers of Māori being in all fields of science. The Māori world view, ideas and values do have a place in science and underpin the very wide range of development opportunities that the application of science to these ideas and values can bring.

2) Dickison, Mike, 'Māori Science?' in *New Zealand Science Monthly* (Vol. 5, No. 4, May, 1994) at 6-7.

When defining Māori science, at least two important factors emerge: a definition of science and a confidence that the definition is appropriate and relevant to define or explain (and include) Māori science. To some, Māori and science represent different cultures and levels of knowledge. Dickson suggests that Māori 'Science' does not qualify as 'Science' because of his narrow definition of science which excludes and marginalises Māori knowledge systems and views.

3) Kapua, Terry, 'Defining Māori Science' in *Historical Review: Bay of Plenty Journal of History* (Vol. 45, No. 2, Nov. 1997) at 91-98.

While a student at Te Whare Wananga o Awanuiārangi, Terry Kapua challenged Dickison's closed minded view of 'Māori knowledge not qualifying as science by deconstructing the definition of science. Kapua defines 'Māori science' referring to specific examples to justify that mātauranga Māori is scientific and therefore justifiably 'Science.' Kapua's examples include the relationship of Māori with nature and conservation knowledge, hauora, scientific uses of plants of the forest for agriculture, medicine and warfare; knowledge of astronomy and navigation, mathematics, design and architecture, the science of warfare, art, education, leisure and social structure. Kapua concludes that there are numerous examples of knowledge as science evident when examining Te Ao Māori. Science is but a small part of mātauranga Māori yet is permeates nearly every aspect of mātauranga Māori. Kapua finishes by defining 'Māori Science' as 'Te Mātauranga Motuhake o te Māori.'

ii) Mātauranga Māori

1) Royal, C.T, *The Woven Universe: Selected Writings of Rev. Māori Marsden* (Estate of Rev. Māori Marsden, 2003).

> This book is a seminal piece that discusses the works of the Nga Puhi tohunga Rev. Māori Marsden. He discusses various topics of the Māori world which provides vital context for mātauranga Māori. A worldview orientates the human being and their community to the world so that it is rendered understandable and their experience of it is explainable. Māori Marsden's economical definition of worldview for example reads:
>
> > Cultures pattern perceptions of reality into conceptualisations of what they perceive reality to be; of what is to be regarded as actual, probable, possible or impossible. These conceptualisations form what is termed the 'world view' of a culture. The World View is the central systematisation of conceptions of reality to which members of its culture assent and from which stems their value system. The world view lies at the very heart of the culture, touching, interacting with and strongly influencing every aspect of the culture.[3]

2) Royal, C *The Purpose of Education: Perspectives arising from Mātauranga Māori: A Discussion Paper* (Report prepared for the Ministry of Education, Version 4, January 2007).

Charles Royal summarised Māori Marsden's comment above:

> *A worldview is based upon our perceptions of reality, our perception of what is actual, probable, possible or impossible*
> A worldview grows according to the experience of the individual and his/her community. Experience is critical in the formation of perception. Marsden's definition is deliberately broad as it does not prescribe any method by which these perceptions are formed. Rather, these perceptions can be deeply personal and subjective phenomena giving rise to an individual's 'worldview'.
>
> *The patterning of perceptions into conceptualisations*
> As a person or group experience and perceive their reality, they go about the task of understanding it, of forming views and ideas about the reality they perceive. An interesting aspect of this human desire to develop understandings of reality is what seems to be the natural drift toward coherence. That is, as we form our ideas, we also develop a growing need for our ideas to correspond with one another, to possess synergies, to be coherent.
>
> *These conceptualisations form the 'worldview' of a culture, 'the central systemisation of conceptions of reality'.*
> These conceptualisations in their totality form a worldview. We need to note that this definition draws a distinction between perceptions of reality and conceptualisations. Perceptions of reality arise from experience of the world, however those perceptions

[3] Royal , C, *The Woven Universe: Selected Writings of Rev. Māori Marsden* (Estate of Rev. Māori Marsden, 2003) at 56; and Royal, C, *The Purpose of Education: Perspectives Arising from Mātauranga Māori: A Discussion Paper* (Report Prepared for the Ministry of Education, Version 4, January 2007) at 38.

are formed. It is at the stage of the patterning of those perceptions that a certain order and structure is introduced into the development of a worldview. This definition might be said to be based upon a rational view of 'worldview' in that it prescribes that a 'patterning' should take place. This suggests some order and structure.

In order for it to be said to be the worldview of a 'culture', of a people, it needs to enjoy the 'assent' by those people, by that culture

A cultural 'worldview' is different to that of an individual. According to this definition, a worldview is something that needs to be subscribed to, something that is carried by the group, is assented to by the group. There is also the important reality that groups, cultures are made of individuals who have individual experiences and thus individual perceptions of reality. Many of these perceptions may coincide with those held by other individuals and many may not. Hence, a cultural worldview is not a set of perceptions and understandings which are uniformly held, rather these perspectives are unevenly held throughout the society.

Worldview gives rise to values.

If you see the world in a certain way, this will determine what you value in the world (and what you don't) and *how* you value it through one's behaviour. This statement gives rise to the well known triumvirate – worldview, values, behaviour.

In Māori, we use the terms, *āronga, kaupapa* and *tikanga.* The 'picture' of the world that a people hold, the 'picture' that actually generates their behaviours (in contrast to the articulated picture of the world found in traditions, myths, scientific explanations and so on) is complex and illusory in that it is found in a composite of articulated statements (stories, explanations, for example) as well as in the behaviour of the culture.

Worldview lies at the very heart of a culture.

Finally, a worldview is something that lies deep within a culture and the individuals of that culture. In many instances, a worldview is often a 'given', an implicit set of impressions and perceptions about the world that are often left unchallenged and discussed. Worldviews are invisible sets of ideas about the world that lie deep within a culture, so deep that many if not the majority of a culture will often have difficulty describing them. Worldviews typically emerge and are challenged when cultures encounter and sometimes conflict with one another.

The Marsden definition above draws the link between worldview and values. It shows that worldview acts as a 'base' upon which values are developed and acted upon within the behaviour of a culture. By understanding the worldview of a culture, we can come to an understanding of its values and thereby its behaviour.

World views, culture and social institutions provide a template through which people perceive the opportunities and threats facing them, and which translate reactions to such opportunities and threats into action. There is little doubt that some cultural and institutional settings are more conducive to a constructive assessment of the available options and to purposeful action.

In the context of cross-cultural dialogue, a group's worldview provides the framework for what is actual, probable, possible or impossible – options for purposeful action - which can be problematic but cross-cultural dialogue between mātauranga Māori and western science is possible.

Furthermore, Royal discusses the importance of and process for education and the transmission of knowledge which is important for this project in terms of processes for learning and dialogue. Royal summarizes the traditional mātauranga Māori perspective concerning the purpose of education as follows:

> The purpose of education is to facilitate the flow and experience of *mana* in the individual and in his/her community. The 'fullness' of life was considered to be a function of the degree and quality of mana at play in a person's life. The outward expression of mana in the life of the individual is evidenced not only in their skills, attributes and talents – expertise and skill is widely celebrated – but finally in their 'spiritual authority', their intuitive and wisdom filled *knowledge and insight* of knowing what, when, how and why to do something.

Royal also defines mātauranga Māori:

> 'Mātauranga Māori' is a modern term for a body of knowledge that was brought to these islands by Polynesian ancestors of present-day Māori. Here this body of knowledge grew according to life in Aotearoa and Te Wai Pounamu. Despite an initial period of change and growth, the arrival of European populations in the 18th, 19th and 20th centuries brought major impacts to the life of this knowledge, endangering it many and substantial ways. All, however, was not lost as new knowledge was created through the encounter with the European and through the experience of the creation of the new nation called New Zealand. Important fragments and portions – notably the Māori language - remain today. These fragments and portions are catalysing a new creative period in Māori history and culture and in the life of the New Zealand nation.

The report touches upon iwi based learning and 'future proofing' curriculum so that learners obtain pre-existent knowledge with an awareness and openness to new learning, to new experiences (thus leaving the creation of knowledge as a future possibility) which is important for new dialogue processes. Three key ideas presented are as follows:

- In using iwi knowledge, cultural and experience to inform curriculum (within *kura* for example), this needs to be developed in harmony with an emerging vision concerning the role and place that iwi culture can play in the lives of its members (and other people too) in the future. That is to say, iwi cultures need to present experiences and activities that can really speak into and be relevant to the lives of individual members today understanding that individuals and their families have many options as to the communities in which they can participate;
- Iwi knowledge and culture should be presented as an Aotearoa located response to universal human experiences (for example, birth, marriage, love, conflict, dying and so on). This is so that iwi members may understand the deep *human* foundations lying at the heart of their culture as well as how their culture uniquely and distinctively approaches and explains these universal human experiences;
- Iwi based education settings should be imbued with a sense of creativity as much as the imperative of cultural retention. Iwi education should not only be concerned with the imparting of traditions, customs and knowledge but also

with fostering an openness about the world and a willingness to engage it. That is to say, to act creatively in the world should be seen as a traditional customary practice (as it has been in many periods in Māori history). Children in these settings (as in all settings) should be imbued with a wonder about their world, a respect for their ancestors and ancestral knowledge, and a freedom to engage the world of their actual experience and to create knowledge accordingly.

3) Royal, C 'Te Whare Tapere: Towards a Model for Māori Performing Arts' (Doctoral Dissertation, Victoria University of Wellington, 1998).

Te Ao Mārama as the Māori world view is discussed at length in Royal's doctoral thesis. In extensive research that analysed whakapapa from various iwi, Royal explains that the separation of Ranginui and Papatuānuku was a significant event or a 'key nodal point' that gives rise to this world known as Te Ao Mārama - a conceptualisation of the reality of this world. Te Ao Mārama represents both the physical venue from within which Māori history is played out as well as a spiritual, philosophical and psychological orientation to the world. Royal concludes that it has also given rise to a societal philosophy and value system which was applied and found expression in Māori history.

4) Hemara, W, *Tikanga Māori, Mātauranga Māori and Bioethics: A Literature Review* (Mauriora-ki-te-Ao/Living Universe Ltd, August 2006):

This literature review was prepared for the Bioethics Council by Dr Wharehuia Hemara on behalf of Mauriora-ki-te-Ao/Living Universe Ltd. It has been further elaborated by Dr Charles Royal and Parekāwhia Mclean. The purpose of this literature review was:

- to identify sources of information in which can be found perspectives, ideas and theories concerning the relationship between tikanga Māori, mātauranga Māori and biotechnology and bioethics.
- to identify key themes and perspectives articulated in this literature

The intention of the Bioethics Council is to use themes and ideas arising from this literature review to inform and 'frame up' a discussion about mātauranga Māori, tikanga Māori and biotechnology and bioethics.

The report contains a discussion of a variety of sources including written documents; internet located sources and published texts. Key findings of the review are as follows:

- Whilst much literature exists concerning the need to or calling for the incorporation of Māori values and perspectives into discussions concerning biotechnology and bioethics, there is a paucity of literature concerning the actual nature of Māori views as they relate to biotechnology/bioethics, how these views are constructed and how they might be applied in bioethics discussions.
- Where sources discuss methodology, they tend to relate to methodologies for the participation of Māori in discussions about the use of biotechnology rather than methodologies concerning the construction of a mātauranga Māori/tikanga Māori derived response to biotechnology. A significant exception is the 'framework'

described by Durie 2003. Whilst the 'framework' does not describe Māori views, its contribution is to place an emphasis upon 'outcomes sought'.

- Many Māori concerns about biotechnology and bioethics relate to spiritual/cultural notions of the nature of life and its elements as these are suggested by traditional knowledge, mātauranga Māori. The sanctity of and respect for life, 'particularly the importance of respect for whakapapa, for mauri, for te tapu o te tangata'. Key questions presented in the chapter include: 'How is whakapapa affected? How is the tapu of a person affected if you put an animal gene in it? What happens to the mauri if genetic material is used from the huia bird to try to bring it back from extinction? What is the impact on the ira tangata, ira atua if human cloning is allowed?'
- Some sources do list a number of cultural concepts (e.g. whakapapa, mauri and others) as significant in Māori thinking about biotechnology and bioethics. However, these sources do not present a substantial discussion of these concepts or their application.
- Finally, there are a significant number of sources which present opposition to biotechnology/bioethics. Whilst these sources occasionally make use of mātauranga Māori concepts, they primarily reflect a mixture of contemporary social justice concerns including decolonisation vis-a-vis the liberation of Māori, the quest for the ascription and expression of indigenous rights and international cross-cultural themes such as indigenous resistance and 'struggle' in the face of globalisation. These issues are as follows:

    - Protection and advancement of indigenous cultural and intellectual property rights
    - 'Another (area of concern) is the growing of genetically engineered crops and the development of genetically modified organisms within their territories. A number of indigenous peoples have opposed the patenting of plants and the mass plantings of genetically engineered crops… Also alongside this are the concerns over genetic accidents, such as the contamination of existing corn crops in Gisborne…'
    - Questions are raised as to the ethics of certain commercial entities who wish to secure the consent of iwi/Māori in advancing their projects.
    - Māori opposition articulated before the Royal Commission on Genetic Modification was largely ignored 'and put back under the broad umbrella of all New Zealanders'. Whilst the chapter does not draw the connection explicitly, there is the suggestion that this circumstance was contrary to the Treaty of Waitangi.

Overall, the report says that:

- a fully developed perspective on biotechnology/bioethics drawing upon mātauranga Māori and tikanga Māori awaits creation

Broadly, the Bioethics Council seeks to understand the variety of perspectives and viewpoints (and potential views) arising from the Māori community. Particularly, it wishes to understand:

- the nature, character and features of a mātauranga Māori and tikanga Māori inspired or derived approach or perspective to biotechnology and bioethics (or aspects of it)
- how a mātauranga/tikanga Māori view of biotechnology/bioethics, or some aspect thereof, is constructed.

The Nature of a Māori Viewpoint

The report approaches the question as to the nature of a 'Māori' view of biotechnology and bioethics. It suggests that there are four possible themes or 'domains' upon which a 'Māori' view might be constructed:

- A perspective drawn from contemporary Māori experience, which lies at an intersection between a number of worldviews and perspectives
- A perspective based entirely upon traditional knowledge or mātauranga Māori
- An approach drawn from and concerning the liberation of Māori from colonisation
- An approach based upon the Treaty of Waitangi

5) Robinson, S.T, *Tohunga: The Revival Ancient Knowledge for the Modern Era* (Reed Publishing Auckland, 2005):

> Robinson was schooled in Māori lore from childhood. In this book, he draws on his own experience and research and that of Ngāi Tahu tohunga Teone Taare Tikao to discuss the Māori worldview, knowledge systems, cosmology, and detailed understandings of tohunga learning in specific areas such as karakia, medicine and healing, handling tapu, warfare and makutu.

Refer to Appendix 1 for elaboration on Robinson's views.

6) MoRST, *The Interface Between Mātauranga Māori and Mainstream Science* (Ministry of Research, Science and Technology, Wellington, 1995) at 5-6:

> This paper questions what mātauranga Māori is and then defines it as the Māori science paradigm that relates everything back to personifications of various aspects of the natural science world utilising whakapapa to define the various relationships for explaining natural phenomenon. The report defines Māori knowledge systems as a form of taxonomy and it refers to mātauranga Māori as potentially useful knowledge that forms the basis of the Māori cultural paradigm.

7) Shuter, Angie, *Scoping Paper: A Review of the Experiences of Other States in the Development of Sui Generis Mechanisms for Protecting Knowledge* (Te Puni Kokiri Paper, Wellington, February 2002):

> Shuter reviews other State's experiences with developing and implementing sui generis (of its own kind or unique) mechanisms of protection for traditional knowledge. Shuter emphasises the importance of meaningful consultation between all parties as being essential in the development of any form of traditional knowledge protection. Shuter also refers to Indigenous traditional knowledge as:

> The traditional based literary, artistic or scientific work; performances; inventions; scientific discoveries; designs; marks; names and symbols; undisclosed information; and all other tradition-based innovations and creations resulting from intellectual activity in the industrial, scientific, literary or artistic fields. … [Traditional knowledge] includes the ways in which indigenous cultures are expressed and which are manifestations of worldviews of the indigenous peoples and … any knowledge or any expressions created, acquired and inspired (applied, inherent or abstract) for the physical and spiritual well being of indigenous peoples. The nature and use of such knowledge and expressions are transmitted from one generation to the next to enhance, safeguard and perpetuate the identity, well-being and rights of the indigenous peoples.

8) Williams, David, *Mātauranga Māori and Taonga: The Nature and Extent of Treaty Rights Held by Iwi and Hapu in Indigenous Flora and Fauna, Cultural Heritage Objects and Valued Traditional Knowledge* (Waitangi Tribunal Publications, Wellington, 2001):

> Williams' report refers to challenges at the interface of mātauranga Māori and western science of 'talking past each other' particularly when the communication is between the language and thought processes of an Indigenous People on the one hand and a 'western' influenced culture of a colonising people on the other hand. The report has some very useful insights on the mātauranga Māori and science dichotomy, as well as some good specific mātauranga Māori science examples of traditional ecological knowledge and ethnobotany, kaitiakitanga, conservation and biological diversity.

9) Kawagley, A. Oscar, *A Yupiaq Worldview: A Pathway to Ecology and Spirit* (Waveland Press, Inc, Illinois, 1995):

> Kawagley provides an insight into another Indigenous cultural worldview - that of the Yupiaq of Alaska. Kawagley was raised by his Yupiaq grandmother in the traditions of the Yupiaq culture and was subsequently educated in Western science. A faculty member of the University of Alaska' School of Education, Kawagley is a man of two worlds walking the sometimes bewildering line between traditional Yupiaq culture and the Westernised Yupiaq life of today. In this book, Kawagley proposes a way of teaching that incorporates all ways of knowing available in Yupiaq and Western science. He is dedicated to finding a way of teaching science that respects both traditional worldviews and the sciences of the modern world.

10) Maryboy, Nancy and Begay, David, *Sharing the Skies: Navajo Astronomy: A Cross Cultural View* (World Hope Foundation, Indigenous Education Institute, 2005):

> The Navajo or Diné People have observed the night sky for centuries from which they developed a sophisticated philosophy and complex astronomy. This ancient knowledge is recaptured in this book. Maryboy and Begay juxtapose western science and social science with Diné cultural standards which is innovative and valuable as they make the interconnections of Navajo astronomy, Greek mythology and space science. The author's note that this book will be able to bridge the western thoughts with the traditional Navaho thinking to help educate Navaho children being raised in both worlds to learn, compare and contrast the uniqueness of both perspectives of astronomy and will be able

to take the teachings and share them with family. The Navaho believed the star constellations showed the order of life and natural laws the people should follow.

11) Woods, Huia, 'Traditional Indigenous Peoples' Knowledge Systems as Viable Mechanisms for Sustainable Resource Management under the Convention on Biological Diversity' (LLM Thesis, School of Law, University of Waikato, 2004):

> Woods' thesis discusses how Indigenous Peoples have had little recognition or acknowledgement regarding the wealth of knowledge collected over centuries and the role they play in conserving the ecosystems that make up their traditional lands and resources. The United Nations Environmental Programmes work under Article 8(j) Convention of Biological Diversity provided greater opportunities for Indigenous Peoples to participate in decision-making processes relating to their traditional lands both at the international and domestic levels. The thesis presents a discussion about Indigenous Peoples' knowledge systems relating to the natural environment demonstrating that Indigenous knowledge systems can be viable mechanisms for sustainable resource management today.

The significance of the above references are the articulation of and a discussion about the Māori world view (and other Indigenous world views) and their many complexities to assist with some understanding, albeit brief, of Indigenous knowledge systems, particularly Māori, which provides necessary context for building appropriate dialogue processes across cultures. The next section builds on the Māori world view in terms of understanding the traditional values and conceptual regulators of the Māori world view – nga tikanga Māori.

iii) Tikanga Māori

A traditional Māori worldview was based on the Māori cosmogony which was a blueprint for life setting down innumerable precedents by which communities were guided in the governance and regulation of their day-to-day existence. The Māori worldview generally acknowledged the natural order of living things and the relationship to one another and to the environment. The overarching principle of balance underpinned all aspects of life and each person was an essential part of the collective. The Māori worldview is therefore one of holism, physical and metaphysical realities, and one in which the past, the present and the future are forever interacting. The maintenance of the world view of life is dependent upon the maintenance of the culture and its many practices and rituals. History points to Māori people and their culture being constantly open to evaluation and questioning in order to seek that which is tika – the right way. Maintaining tika or tikanga is the means whereby values and practices can be identified.

While Māori displayed a variety of cultural patterns, Māori as a people lay claim to a set of abstract values and ways of organising social life, which are distinctively Māori and refer to these ways as tikanga Māori sometimes described as values, principles or norms which determine appropriate conduct, the Māori way of doing things, and ways of doing and thinking held by Māori to be just and correct. Tikanga are established by precedents and validated by more than one generation, and vary in their scale, as rules of public through to private application. Tikanga Māori is the traditional body of rules and values developed by Māori to govern themselves.

Before discussing tikanga Māori in detail, an emphasis must be placed upon the importance of words used within cultures. What one's words mean within a given worldview are difficult to translate across cultures for a group's words provide a window to the culture as the Chinese philosopher Chuang Tzu, Kuang-Ming Wu noted:

> Words are the tools and trails of our discernment of life. They are an abstractive sieve which captures not only general themes but clues to the pulsations of the real. They are useful because they constantly refer us back to the thick 'mud' of existence where the dynamic of ambiguity persists in its own renewal.[4]

This section on tikanga Māori refers to Māori words that are difficult to translate across cultures. However, Māori words are the tools and trails of the Māori worldview and its discernment of life providing a clue to the pulsations of the Māori realities. Māori words refer Māori and others back to the thick mud of existence where the dynamic of ambiguity persists in its own renewal which themes are illustrated in the sections that follow.

The phrase 'tikanga Māori' for example, is increasingly being used to mean Māori culture and the rules or guidelines for living generally accepted by Māori as tika (right, correct). Tikanga has plural forms and it is not a singular monolithic thing but a collection of customary ways.

1) Milroy, Stephanie, 'A Māori Perspective on Cloning' in School of Law, *Hello Dolly? Therapeutic Cloning of Human Embryos and Human Cloning Conference Proceedings* (Centre for New Zealand Jurisprudence, School of Law, University of Waikato, 26 May 2001) at 35-40:

> Stephanie Milroy cautions on presenting *a* Māori view rather than *the* Māori view on tikanga around cloning (implicitly biotechnology) acknowledging tribal variance and diversity as well as the enormous changes to Māori society both technologically and socially since pre-colonial times. Milroy further discusses how Māori would most probably disagree with cloning based on the transgression of traditional values and tikanga such as the practice of cloning tampering with whakapapa, mauri being out of balance, and tino rangatiratanga in terms of authority, control, ownership and protection being undermined. Milroy provides as a novel example the tangi of the late Billy T James. Given that he had a heart transplant, some kaumātua were not quite sure who they were farewelling – Billy T. James or the donor of the heart. The upset to whakapapa is one of the most important reasons why organ donations, for example, are disliked by many Māori. Milroy does highlight however, that therapeutic cloning may be acceptable to Māori. Milroy concludes that mutually agreed upon standards and procedures are required to deal with culturally sensitive issues such as organ donations and reproductive and therapeutic cloning.

2) Mead, S.M, *Nga Tikanga Tuku Iho a Te Māori: Customary Concepts of the Māori* (Department of Māori Studies, Victoria University, Wellington, 1984):

> This book of Professor Mead is an early contemporary source book for Māori studies on Māori customary concepts. It may be useful in terms of assisting with ethics, defining tikanga Māori and how it applies in 21st century New Zealand.

[4] 'Chuang Tzu: World Philosopher at Play' in Arrington, R, *The World's Great Philosophers at Play* (Blackwell, Malden, MA, 2003) at 22.

Professor Hirini Mead's more recent work is an authoritative and accessible introduction to tikanga Māori, which provides understanding of the correct Māori ways of doing things which provides more needed context for building appropriate methodologies and dialogue processes for cross-cultural research.

3) Mead, Hirini Moko, *Tikanga Māori: Living by Māori Values* (Huia Publishers, Wellington, 2003):

> Professor Mead provides an overview of the underpinning values of Māori society as well as approaches to dealing with 21st century Māori society and its challenges. Professor Mead discusses mātauranga Māori: knowledge; extensions of tikanga Māori and Nga ahi e ngiha mai nei: the fires that flare up. In the latter chapter, Professor Mead mentions how Māori need to deal with issues that have not been addressed or discussed seriously which will eventually affect Māori such as genetic engineering, genetic modification, in-vitro fertilisation, organ transplants and surrogate motherhood, to site some examples. Māori need to identify a 'Māori' position on these and other issues and in attempting to discover a position, Professor Mead notes that Māori have to engage with tikanga Māori and its knowledge base – mātauranga Māori.
>
> In many cases, Māori do not know how to deal with new contemporary issues and how to frame a position, while others insist there must be a tikanga Māori position. Professor Mead suggests five tests to assist with developing and justifying a tikanga framework for what may be called a Māori position on current contentious issues such as biotechnology. Old ideas and challenges can also be subjected to these same tests to find some answers. Professor Mead warned however that the discussion be firmly based on mātauranga Māori, on Māori traditions and customs and the principles of tikanga Māori which are the crucial parts in terms of a methodology for processes and creating space for Mātauranga experts and western scientists to dialogue effectively.

Tikanga is sometimes described as Māori law, kawa as ritual and procedural law particularly on Marae, and ture is described as church law, western institutional law and institutional Māori land law. Ritenga (likeness, a repeated pattern, hence custom), kaupapa (plan, scheme, proposal) and whakaaro (thought, way of thinking) are also important values and conceptual regulators of Māori society. Exactly which of these meanings is intended can be determined only by reference to the context of use, and even then the other meanings are present as over- and under- tones. In summary, the principles of tikanga provided the traditional base for the Māori jural order and tikanga embodies core values and principles that reflect doing what is right, correct or appropriate in a biotechnology dialogue context.

Specific traditional conceptual regulators and values which seem to underpin the totality of contemporary tikanga Māori include:

- whānaungatanga – kin relationships between people and the rights and obligations that follow from the individuals place in the collective group; the bonds of kinship that exist within and between whānau, hapū, and iwi, belonging, togetherness, relatedness;
- wairuatanga – spirituality;
- manaakitanga – sharing, hospitality;
- aroha - charity, generosity;

- mana - encompasses collective and individual political power, as well as intrinsic authority, status, control, influence and prestige;
- tapu - generally seen as part of a code for social conduct based upon keeping safe and avoiding risk, as well as protecting the sanctity of revered persons, places and objects and traditional values;
- utu- concept of reciprocity in order to maintain balanced relationships between people and the environment;
- rangatiratanga – effective leadership;
- kaitiakitanga - stewardship and protection, often used in relation to natural resources.
- iwitanga: expression and celebration of those qualities and characteristics that make an iwi or hapū tribe unique and underpin a shared whakapapa (genealogy), history and identity;
- whakakotahitanga, kotahitanga: respect for individual differences and the desire to reach consensus, unity and solidarity;
- tau utuutu: acts of always giving back or replacing what you take or receive, reciprocity; and
- taonga tuku iho: the notion of recognising and holding on to the treasures and knowledge passed on from ancestors.

A more recent in-depth and well audited work on tikanga Māori is the Te Matapunenga compendium of the Te Mātāhauariki Institute at the University of Waikato:

4) Te Mātāhauariki Institute, 'Te Matapunenga: A Compendium of References to the Concepts and Institutions of Māori Customary Law: Proto-Compendium' (CD, Te Mātāhauariki Institute, University of Waikato, Hamilton, May 2007):

> This proto-compendium is a very important work recording the various customs and institutions or tikanga of the Māori tribes throughout New Zealand. It is a comprehensive work documenting from mostly primary sources what the various tikanga surrounding specific customs and institutions were and how they have developed into what they appear to be today. The work is not a critical piece but merely provides good references as far back as possible up to the present to document tikanga customs and institutions and their development.
>
> For the present research, the CD includes in-depth research on tikanga as a process as well as specific relevant titles such as mana, mauri, hau, tapu, noa and wairua refer to key personal attributes that underpin the Māori worldview. Other titles such as ea, ritenga, tatau pounamu, mana korero, whakapapa and utu. In terms of dialogue and process, some of the relevant tikanga Māori terms from Te Matapunenga are as follows:

A) Mana:

A key philosophical concept combining notions of psychic and ritual force and vitality, recognized authority, influence and prestige, thus also power and the ability to control people and events. As a verb the word means to be effectual or to take effect, also, in some contexts, to be avenged; the derived causative *whakamana* denotes the application of mana, in bringing something about, making it worthy of admiration or

respect, or rectifying an undesirable state of affairs. The concept of *mana* is found in most Oceanic cultures; the word comes from Proto-Oceanic **mana* "supernatural power".

Entry Guide. This key but complex concept is referred to in many entries throughout Te Mätäpunenga. Many of the entries focused on the concept of mana itself are gathered together under this Title and the five which follow it: **Mana Körero**, **Mana Moana**, **Mana Motuhake**, **Mana Tangata** and **Mana Whenua**. Entries illustrating aspects of mana are also presented in the Titles **Ariki**, **Kanga**, **Rangatira**, and **Riri**, among others.

[#MAN 01] Te Kähui Kararehe was one of ethnographer Percy Smith's key informants on matters Māori. In an 1893 letter to Te Mete (Smith), Kararehe explains how Kurahaupo waka carried all the different associated "Mana". These "mana" were hidden because they were considered as 'treasures' or 'kura':

> "Ko te ingoa o Kurahaupo waka i utaina mai ki runga ki a raua me te kura i riro mai i a raua te kura; I huna era ki runga ki a Kurahaupo. Te kura i huna, ara te mana, te mana o te whenua te mana o te rangi, te mana o te tangata, te mana o Tu, te mana o rongo, te mana o nga mea katoa i runga i te whenua." ([Translation by Te Mātāhauariki] The name of the kurahaupo waka that was given to them and the talisman that was taken by them was hidden on 'Kurahaupo'. The treasure that was hidden was power, the power of the land, the power of the sky, the power of the people, the power of war, the power of peace, the power of all things on the land.)" 'Ko nga tuhituhi o te Kahui Karerehe o Taranaki ki o Te Mete. He mea whakaemi na Ruka Broughton', Department of Māori Studies, Victoria University, Wellington, 1984, p. 15

[#MAN 02] The Report of the Waitangi Tribunal in 1992 on the Mohaka River discussed the rights to, and authority over, that river. Ngāti Pahauwera claimed that authority and its members offered interpretations of how it came into being and what it means:

> "The control of the river has been our mana from way back. It came from our ancestors and down through the generations. Even though these things have been taken, we stand firm (in our belief). Tawhirirangi is the mountain; Mohaka is the river, etc, etc. Our ancestors discovered the mana. They found the mana in the hills, in the rivers, and that is why we battle for their return...
>
> Tino Rangatiratanga can be understood as meaning 'full authority, status, and prestige with regard to their possessions and interests'. Mana is the personalisation of that authority.
>
> [Mana] is the psychic force within us. What is the essential element of mana? To us, it is not us. We say that it is the culmination of the story of the river. To me our mana is derived from the river. Without that heritage of the river we are nobody. To us the river is spiritual in all things. People go and talk to the river." 'Mana and Rangatiratanga Over the River', evidence of Ngāti Pahauwera and Other Tribes, The Mohaka River Report 1992 (Wai 119), Waitangi Tribunal, Wellington, 1992, para. 2.11, p.18-19 c)

[#MAN 03] Hare Hongi, commenting on T. Tarakawa's paper on the Coming of the Te Arawa and Tainui Canoes, takes issue with the author referring to the death of Tama-te-kapua, with the words *Kei raru koe i taku mana*, declaring them to be bad in form. *Tohungas:*

> Neither Te Morenga, Ngakuku, or Papahia - acknowledged - ever gave me to understand that a dead person possessed any such thing as *Mana*, although I frequently attended with them the decease of eminent chiefs of our people. They taught me that if anything wrong occurred in the setting out or burial of an important personage, it was a matter for the gods themselves to deal with, whose peculiar business it was to watch over the tupapaku (or dead body) and note exactly what was being done. If the *Tohunga* assisted by Tama-te-Kapua himself had instructed his son Tuhoro in their sacred teachings, and if he was worthy, the moment the breath left Tama-te-Kapua's body, whatever *Mana* he had possessed would rest upon this son, and for any subsequent mistakes his chastisement would be inflicted entirely by the gods, who were very zealous that their forms and ceremonies should be scrupulously observed and performed. Therefore, I repeat that the words *kei raru koe i taku mana* (after death) are not to be accepted as the utterance of a great man, for his dead body would not possess a particle of *mana*. It was, of course, highly *tapu*, and any infringement upon its sanctity would be punished by the gods…". Hare Hongi, 'Notes on T. Tarakawa's Paper', JPS, Vol.3, 1894, p.37 at p. 39.

c) [#MAN 04] Responding to Hare Hongi's criticism of his use of the term *mana* (see previous entry), Tarakawa, offers his own understanding. Tarakawa recalls Tamatekapua and Ngatoro-i-rangi as illustrations between the two forms of mana. He also goes on to describe the transfer of mana to his child Tuhoro:

> "Te mana rangatira, te mana ki runga i te iwi, te mana e kiia nei nga uri o nga tangata pu-korero mo te pakanga, mo te riri, mo te whakahaere i te iwi, mana ki te taonga, mana ki nga kai rangatira, huahua, aha, aha. E kiaa ana tena he mana rangatira ; e wehe ke ana te mana tohungia, kei nga mahi tonu ia o tona tohungatanga e tiaki ana." ([Translation in the original by Percy Smith] The chief-like power, power over the people, power of oratory, such as is possessed by the offspring of the orators inciting to deeds of war and strife, for guiding the tribe, power over property, power over superior kinds of food, such as *huahua* (preserved foods), and so on. These are called chief-like powers; the power of the *Tohunga* is separate, and applies only to that which concerns his Priestcraft.". 'Whakamaramatanga o te pepa o Te Hoenga mai o Te Arawa raua ko Tainui i Hawaiki', JPS, Vol.3, 1894, p. 169-173, and p.199.

[#MAN 05] Mead and Grove give the following proverb underlining the seriousness with which violation of the mana of a person, particularly a great person, is viewed:

> "He pukepuke maunga, e pikitia e te Tangata; he pukepuke moana, e ekengia e te waka; he pukepuke Tangata, e kore e pikitia e te Tangata." ([Translation by Mead *et* al] A mountain summit can be scaled by a man; a heavy sea can be negotiated by a canoe; but a great man cannot be trampled upon. No. 660, Mead, H. M and

Grove, N. Nga Pepeha a ngā Tīpuna, Wellington, Victoria University Press, 2001, p. 112

[#MAN 06] Mead and Grove state that Te Aho was a Hokianga ancestor of such mana that no request of his descendants would be refused. Hence the proverb:

> Ko te uri o Te Aho, te kai te mahi, te waka te haua, te kupenga te taia. ([Translation by Mead *et al*] For the descendants of Te Aho you must provide subsistence, canoes and nets.) No. 1618, Mead, H. M and Grove, N. Nga Pepeha a ngā Tīpuna, Wellington, Victoria University Press, 2001, p. 262.

[#MAN 07] Mead and Grove state that

> "the father of Tū-purupuru was the grandson of Kahungunu and Rongomaiwahine. Tū-purupuru, paramount chief of Tūranga (Gisborne), had great mana. It was said that he had only to post his cane or place his girdle on a high place and the many people of Tūranga would come to place food for him". Hence the proverb: "Ko te mana koe o Tū-purupuru a Rākai-hiku-roa." ([Translation by Mead *et* al] You have the mana of Tū-purupuru, the son of Rākai-hiku-roa.) No. 1562, Mead, H. M and Grove, N. Nga Pepeha a ngā Tīpuna, Wellington, Victoria University Press, 2001, p. 254.

[#MAN 08] Critical of researchers who wrote on mana without identifying who defined it for them, the Danish author J. Prytz Johansen argued that the core of the investigations must be philological because only in this way can one be sure of speaking about something real and of avoiding a compromise between a scientific technical term, mana, and more or less corresponding notions of mana in other cultures. Accordingly, he took a philological approach in exploring the meaning of mana as part of a larger study of the Māori and his religion and underlined the importance of reliable texts as a source of illumination, particularly in the Māori case.

> *"Mana* is a kind of fellowship. This is evident from the texts when these are read quite straightforwardly…The *mana* common to the chief, the kinship group, and the land is owned by the chief; this causes his special position…The chief who has a strong mind, strength, and courage, in short, a great *tupu*, can also be said to permeate the *mana* of the kinship group and the country with his being, his *mana*… It is not a mysterious substance, but a fellowship on which he may leave his mark and which he may dominate by his personality. …The secret of *mana* is that communal life, the 'fellowship', permeates all the people to their innermost hearts; we may say that they live *mana*. The chief's *mana* is not only the *mana* of the kinship group but that of the country as well…So the *mana* of the country is as a matter of course part of that of the kinship group as well and, and as the latter stands in a similar determinative relationship to the country as the chief to the kinship group, the Māori may, of course, with equal right say that the *mana* of the country is with the kinship group without being guilty of any inconsistency." 1954, *The Māori and his Religion: In its Non-ritualistic Aspects*, I Kobenhavn: I Kommission Hos Ejnar Munksgaard, pp.90-93

[#MAN 09] Questioning the anthropological belief (first postulated by B. Malinowski) that what motivates exchange in "primitive" society is the conception of a return gift, Anne B. Weiner uses the results of her own field research in the Trobriand Islands, and ethnographic material collected by other researchers who have worked in Oceania and elsewhere, to support her contention that the "norm of reciprocity" needs to be re-examined. In analyzing such key concepts as mana, *hau* (q.v.) and *taonga* (q.v.), she draws attention to the radiating power of keeping inalienable possessions out of exchange:

> "The mana present in a taonga authenticates the differential ranking of chiefs and their tribes. Although the hau is a personal life force that is thought to imbue all persons and things with this vitality, mana is a cosmological power that can only be the prerogative of high-ranking people…Not only in human reproduction but in the cultural activities of birth and cloth production, women bring these powerful sources of authority to bear on the negotiation of political relations. Mana infuses possessions with a power that, although feared, is coveted. So sanctified do the taonga of high-ranking people become that the possessions associated with them take on the same symbolic powers… An individual's role in social life is fragmentary unless attached to something of permanence. The history of the past, equally fragmentary, is concentrated in an object that with age, becomes increasingly valuable. In the Māori case, a person's life force, the hau also penetrates these possessions. And among high-ranking people, mana, the source of reproductive potency and cosmological power contributes its efficacy. The dynamics surrounding keeping-while-giving are attempts, paradoxical though they may be, to give the fragmentary nature of social life a wholeness, thereby strengthening each new generation with the fame of past generations. But these possessions do more than replicate the past. Their fame and power pervade all exchange events for giving and the status that ensures is measured by what has been kept…The fact of ownership, be it an ancestral name, knowledge of a myth or ritual, or a magnificent flax cloak, enters into all other exchange events defending, usurping and in some situations, defeating political hierarchy." Inalienable Possessions: The Paradox of Keeping-While-Giving, University of California Press, Berkeley, 1992, p.64.

[# MAN 10] Focusing on the conflict between Rua Kenana and the Government, the anthropologist Stephen Webster underlined the importance of mana to a Māori leader.

> The authorities were determined to destroy Rua's mana as the first step towards weakening his messianic leadership and breaking up his thriving Māori settlement of Maungapohatu, in the heart of the Urewera country. Now, imprisonment will have its effect upon any man, and when Rua was released in 1915, he seems to have been more defiant than before, perhaps because he felt he was being persecuted...It would in the circumstances, have been far more significant to him than to the general run of petty criminals who received such sentences at the time. For example, in accordance with prison regulations, Rua's hair was cut short. This was the greatest indignity, besides imprisonment, that the authorities could inflict upon him because it violated his tapu. One thing is certain: the sentence embittered him and his followers still further against the Pakeha, and Rua became quite determined that he would not go to prison again. (Webster 1979:238)

[#MAN 11] The anthropologist Raymond Firth was critical of his profession's treatment of ‘mana’, observing that 'too often it is the European's own conception of the meaning of the term that has been placed on record and not an exact translation of the texts spoken by the natives themselves'. In his 1940 study, which sought to provide empirical material on the concept from Tikopia (a small island of the Solomon Islands), Firth wrote (1967, p.190) concerning the term mana and its synonym in Tikopian usage, manu:

> "So far as Tikopia is concerned, we have now arrived at a factual definition of *mana* (*manu*) in terms of the following characteristics: 1. *Material events*, e.g. crops, fish, death of bewitched persons, cure of sickness, relief from fear. 2. As a *personal attribute* of chiefs; though by way of illustration an informant may refer to himself. 3. The *volition* of spiritual beings who grant to or withhold the *manu* from chiefs. 4. Involving value judgment: in contrast to *mara* [the absence or withholding of *mana*], *manu* and *mana* always have a positive connotation." Raymond Firth, 'The Analysis of Mana’, *JPS, V*ol.49, 1940, p.483-510, reprinted as Chapter 8 in Firth 1967.

[#MAN 12] The prophet and fighter Te Kooti Rikirangi (c.1830 – 1893) composed and sang a waiata tohutohu, or song of instruction, in 1883, urging the Tuhoe tribe not to allow the loss of their lands. McLean states that an adaptation of it was sung in 1886 by a woman of Ngāti Maniapoto, Puhiwaahine, to warn the tribe against leasing of their lands. Te Kooti’s song demonstrates a broad use of the concept ‘mana’, which is made applicable to European things, which are in turn superseded by the separate mana of the Māori:

> Kaaore te poo nei moorikarika noa!
> Te ohonga ki te ao, rapu kau noa ahau.
> Ko te mana tuatahi ko te Tiriti o Waitangi,
> Ko te mana tuarua ko te Kooti Whenua,
> Ko te mana tuatoru ko te mana Motuhake;
> Ka kiia i reira ko te Rohe Pootae o Tuuhoe,
> He rongo ka houhia ki a Ngaati Awa.
> He kino anoo raa ka aata kitea iho
> Ngaa mana Maaori ka mahue ki muri!
> Alas for this unhappy night!
> Waking to the world,
> I search about in vain.
> The first mana is the Treaty of Waitangi,
> The second mana is the Land Court,
> The third mana is the separate Mana;
> Hence the *Rohe Pootae* of Tuuhoe,
> And peace made with Ngaati Awa.
> It would indeed be an evil thing
> To abandon the mana of the Māori!
>
> Mervyn Mclean and Margaret Orbell, Traditional Songs of the Māori, Auckland University Press, 3rd. ed., 2004, p.37.

Dr Charles Royal provides an additional insight into mana that is important for cross-cultural engagement and effective dialogue:

> Mana is creativity. There are three kinds of mana – *mana atua*, or mana from divine sources; *mana tupuna* or mana derived from one's heritage and inheritance; and *mana whenua*, mana derived from the land of one's authority. I interpret *mana atua* to be mana from one's deepest, most fervently held commitments; *mana tupuna* as mana derived from one's inheritance including the heritage of the natural world; and *mana whenua* as mana derived from one's creativity, from one's ability to give birth to things in the world. All these kinds of mana come together to inform *te mana o te tangata*, a person's mana.[5]

Royal adds:

> Mana is no ordinary essence, energy and presence traditionally considered to be sourced in a world beyond this world, a life dimension beyond our everyday experience. It is a term we use for some kind of non-ordinary power, which come 'from beyond' and flows into our being and that of the world. Cleve Barlow tells us that mana is the 'fire of the gods,' one that cannot be extinguished and 'no one can wash it out' as Taare Tikao explains. Mana is a transpersonal essence that can flow into the world given certain conditions and disciplines. Once a mana has flowed into or alighted upon a vessel, such as a person, the vessel itself has now become tapu. The presence of mana is a prerequisite for tapu.[6]

B) Tapu:

> This is a key concept in Polynesian philosophy and religion (along with na and noa), denoting the intersection between the human and the divine. The term is thus used to indicate states of restriction and prohibition whose ill (unless mitigated by appropriate karakia and ceremonies) automatically result in retribution, often including the death of the violator and others involved, directly or indirectly. Its specific meanings include "sacred, under ritual restriction, prohibited". In modern Māori it has also acquired the meaning "holy", as a conflation with Christian notions of holiness and sanctity. In relation to God, this usage is not entirely inappropriate in respect of the older meanings, but in relation to people it ignores the dangerous and restrictive aspects of tapu. Violation of tapu constituted a hara, a term now often glossed as "sin", but, unlike the common meaning of that term in English discourse, the traditional uses of hara did not necessarily imply moral turpitude or intentionality on the part of the violator. The word is derived from Proto-Polynesian **tapu*, and its core meaning is constant throughout its modern cognates in most Polynesian and also Fijian languages; ultimately it derives from a Proto Eastern Malayo-Polynesian word **tabus* "sacred", and is thus a concept of great antiquity, reaching back at least three millennia.
>
> [#TAP 01] In 1838, the House of Lords in London appointed a Select Committee to inquire into the state of affairs in New Zealand. A relation of Te Rauparaha, 'Nayti',

[5] Royal, C, 'The Creative Potential Paradigm emerging in iwi/Māori Communities' (Keynote Address delivered to Transform: Te Tinihanga, A Conference of the Library and Information Association of New Zealand, Rotorua, 10 September 2007) at 7-8.
[6] Royal, C, *The Purpose of Education: Perspectives Arising from Mātauranga Māori: A Discussion* (Ministry of Education, Wellington, January 2007) at 43.

who had traveled to England on a French whaler and stayed for two years with Edward Wakefield in Chelsea, was called to give evidence to the Committee. The official record includes the following exchange:

> *Where a Chief is buried the Place is **taboo'd**?*
> *If a New Zealand Man gets over the Fence, what happens to him?*
> He knows the mark which is **taboo'd** ; they say "You see the Place which is taboo'd ; why do you go to a Place which is **taboo'd**?"
> *What do the New Zealand People do to him?* They take all his Things away. If a New Zealander gets into a **taboo'd** Ground, the Man whom that **taboo'd** Ground belongs to goes and takes his Pig, and every thing belonging to him.
> *Do they ever kill him?* No.
> 'Report from the Select Committee of the House of Lords appointed to Inquire into the Present State of the Islands of New Zealand…with Minutes of Evidence', Ordered to be printed, 8 August 1838 , p.115-116.

[#TAP 02] In a Journal entry for 5 June 1845, the missionary Thomas Chapman records that a road had been placed under a tapu for five months as the result of an axe being stolen from a burial ground near the road. Korokai, a prominent chief, was accompanied by Chapman to seek the lifting of the tapu as Korokai needed the road to drag two large canoes out to sea. Chapman stated that he found the 5 month restriction "ridiculous":

> "Korokai replied ... There were many hundreds who required the use of this road and his people in particular just now and therefore if they did not listen quietly and take away the "**tapu**" of the road, lives would be sacrificed. This ended the regular part of the debate - and it was intimated that the five months would be lowered to five weeks, and this seemed tolerably satisfactory.": 'Letters and journals from Thomas Chapman to Church Missionary Society', Vol 1, May 1830-Jan 1845, Alexander Turnbull Library, qMS-0425.

[#TAP 03] In evidence taken before the 'Waikato Committee', set up to enquire into the attempt by F.D. Fenton to introduce 'civil institutions' into the Waikato region, Donald Mclean was asked whether there were any institutions deserving the character of law in operation amongst the Natives under their old system:

> "Yes, there are. There is the ***Tapu***: this is an institution that has had the force of law among the people… This institution existed before their first arrival in the country. By it a Chief or *Ariki* was able to exercise a very great influence over his people. Canoes, land, and other property were made sacred by the use of one single word, sometimes preceded by some incantation; and any infringement of the *Tapu*, within the district where the Chief pronouncing it exercised authority, was sometimes punishable with death.
> *Did the Tapu depend on the arbitrary power of the Chief*? – Of the Chief, the *Ariki* and the *Tohunga*. The Chief was the man who held the highest rank as a warrior or counselor: the *Ariki* was the man of the highest hereditary family rank; and the *Tohunga* was the priest. But all these functions were sometimes combined in one man; as for instance, in the late Te Heu Heu." 'Evidence Taken Before The Waikato Committee', AJHR, 1860, F-3. No. 3, pp. 90-91.

[#TAP 04] Tureiti Te Heuheu, son of Te Heuheu Tukino, gave evidence to a Native Land Court hearing of his association with various places within the Rohe Potae Block and in particular on the function of sacrifice in the removal of tapu:

> "Whilst we were living at Paewhenua a burial place called Te Whiti was burnt, in consequence of the spread of the fire the whole locality was tapu & there was no place where we could go to catch pigs in consequence of the extent of the tapu. Ngahuarahi and I got some young pigs & killed them there in order to take off the **tapu**." Te Heuheu Tukino - Claim to have his children's names inserted in the Rohe Potae list, Alexander Turnbull Library, Wellington, MS-Papers-4760-5), p. 18

[#TAP 05] In his book on Māori language and customs, the early 20 century Māori scholar and tutor of the Māori language, Stowell (also known as Hare Hongi), discussed the "Law of Tapu": In addition to personal **tapu**, articles of every conceivable nature came under the law of tapu. This could be imposed in various ways, but chiefly by the thing to be made tapu being formally ritualised or touched, whether intentionally or not, by a person whose hand was permanently or temporarily tapu. In its turn any such article communicated such tapu to any person not otherwise tapu, who had touched it, whether intentionally or not... It my be laid down that all forms of tapu, excepting that inherited, or that acquired by a powerful tohunga, could be effectually removed by a tohunga. Stowell, Henry Matthew, Māori-English tutor and vade mecum, Whitcombe and Tombs, Christchurch, 1911, pp. 145-146.

[#TAP 06] On 23 October 1922 the 'Native Affairs Committee Room' of the New Zealand Parliament was opened. The detail of the 'kawanga' ceremony , which was attended by Prime Minister Massey, Sir James Carroll, the Hon. A.T. (later Sir Apirana) Ngata, and Mr Tau Henare M.P., is reported in Parliament's record :

> "As a newly carved house the Native Affairs Committee room was by the Māoris considered tapu. The **tapu** must be disposed of, or its dangerous powers averted, before the chamber could be safely occupied. And so it was arranged that the elders of Te Arawa tribe, whose expert carvers, Te Kiwi Amohau, of Ohinemutu, and Te Ngaru Ranapia, of Mourea, Rotoiti, had executed the fine carvings and the reed panel-work of the room, should have the honour of performing the ceremony." 'Native Affairs Committee Room: Report of Proceedings at the Opening Ceremony', AJHR. 1922, 1-3B.

In his 1927 Masters of Laws thesis on Māori 'Law and Customs', Percival Waddy devoted a chapter to the subject of tapu, criticising the view of Sir James Frazer in *The Golden Bough*. Frazer was of the opinion that tapu was a 'negative magic' and a ceremonial abstinence based on a fear of definite consequences.' Waddy stated that Māori were less illogically superstitious than Frazer believed them to be:

> "The Tapu was, I venture in all humility to submit, a Code of Law, far above and transcending all human laws, forming a Table of Māori Commandments, owing its authority partly to superstition and partly to fear, but based primarily upon political motives and common sense. While its actual origin can never be definitely ascertained, it is quite evident that the early Māori was ruled by the

> law of tapu." Percival R. Waddy, Early Law and Customs of the Māoris, 1927, LLM Thesis, Sydney, Chapter V 'Tapu: A Code of Laws', p.21.

He went on to say

> "The whole system of **tapu** was not the degrading and barbarous institution which some missionaries and early explorers have depicted. Compared with some of our modern practices - legal, social and hygienic - it seems to have been constructed upon the keystone of common sense and expediency. Four single instances indicate that there was always good reason underlying the tapu. The Māori tapu of dead bodies was the precursor of our modern law against sacrilege and defilement of dead bodies. The Māori tapu of sick persons was the forerunner of our current law of quarantine and isolation of infected persons. The Māori tapu of woman to man was merely an earlier law of the sanctity of matrimony. The Māori tapu of seed was a primitive form of protecting property". Percival R.Waddy, supra, p.24.

[#TAP 07] From a young age James Cowan (1870 – 1943) became acquainted with Māori language and customs and frontier settlement life bordering the King Country. He wrote numerous books on travel, history, Māori and Polynesian ethnology and traditions. In one of those publications Cowan dedicates a chapter to the subject of tapu. He states:

> "*Tapu* was the "noli me tangere" of Māori land, "forbidden"; but its variations and peculiar applications are innumerable. There was a personal *tapu* and a local *tapu*; and *tapu* of some kind or another faced the ancient Māori everywhere. Invisible presences thronged the world of primitive man, and these had to be propitiated or exorcised. *Tapu* was the quarantine law; it served some of the same purposes as the old Jewish laws of prohibition…" (p. 69)

Cowan offers several illustrations including the following:

> "The ban of *tapu* is frequently applied to rivers, lakes or other waters in which people have been drowned. This was a needful prohibition against eating fish which might have fed on the dead. After the wreck of the steamer Wairarapa at the Great Barrier Island in 1894, with the loss of 126 lives. The Māori of that island, who live in a bay a few miles away, *tapu*'d all fish within a certain area for a long period. During this time of interdiction no native would eat or touch any food of the salt sea. As a great portion of the food of these people consisted of fish of all kinds, from snapper and *hapuku* to shark, besides oysters and *pipi* and other shell-fish, the *tapu* meant considerable privation, but it was religiously observed for more than a year…" Chapter V, 'The law of Tapu', in The Māori; Yesterday and Today, 1930, Wellington, p.70

[#TAP 08] Ihaia Hutana described the journey of the Kiore (the Māori rat) to Aotearoa and the tapu restrictions it had placed on it. The "uruuru whenua" is another ritual associated with tapu. In this context the writer discusses how the 'pua whakawhenua' had tapu placed on them. The kiore remained there until the 'tapu' restriction was lifted and then was able to proceed to the flowers:

> "Ka hua te tawai ara nga kakano ka heke mai te kiore me te manu. Kaore e u noa ki te akau roa ki te tua whenua ranei engari ki nga pua whaka whenua i whangaia ki nga **tapu** uruuru whenua. Kia wehea rawatia te **tapu** katahi ano ka eke atu ki te pua kakano." ([Translation by Te Mātāhauariki] When the fruits of a tawai tree flourish or the seeds, only then will the birds and the rat descend. It will not settle at the beach or at areas scarce of people until it meets with the ground clinging roots that were propitiated with rituals of trampling new land. When the restrictions have finally been restricted will it take to the flowers.) *Te Toa Takitini*, 1 December 1937, p. 72

[#TAP 09] As part of the 1940 Centennial Celebrations marking 100 years since the signing of the Treaty of Waitangi, several Māori 'waka taua' or war canoes were constructed. The building process, undertaken in the open, was considered tapu. Some European observers failed to realise this, as was reported in a newspaper article pointing out that some permitted themselves to be photographed sitting on the canoe to the dismay of Māori who considered this as desecration:

> "The canoe which the Māoris are building at Kerikeri is tapu. All Pakeha should remember this fact, especially females to whom it is doubly tapu... It seems a pity that the Māoris, in leaving the Kerikeri canoe lying about in such an open and accessible spot, did not think to indicate its untouchable character. A notice: "This canoe is tapu, please do not touch" would have the desired effect. In the meantime, it is suggested that those who have violated the tapu should make handsome donations to the funds which it is proposed to organise so as to assist the Māoris in their entirely commendable work." 'The Place is Tapu', in *The Northern Advocate*, November 17, 1938.

[#TAP 10] In many of the Waitangi Tribunal hearings the institution and nature of tapu have been discussed. The 1984 Waitangi Tribunal Report on the Kaituna River Claim, discussed a proposed sewerage outflow into the Kaituna River. The claimants gave evidence of their strong opposition to the pipeline proposal, objecting on medical, social and spiritual and cultural grounds. The claimants argued that to discharge sewerage into the river would lead to the river being declared tapu. The Tribunal noted that it questioned the claimants closely on this point:

> "They told us that when Hongi Hika attacked Mokoia Island the bloodshed that resulted led to a **tapu** being placed on Lake Rotorua, but that tapu did not affect the Ngāti Pikiao people. Tapu, they said, is a matter of territorial responsibility. They politely and pointedly refrained from comment on the attitude of other sub-tribes to the present situation in Lake Rotorua. But they said equally pointedly that the policy and responsibility of Ngāti Pikiao was all too clear to them and the inevitable consequences all too plain. If the pipeline discharges effluent into the Kaituna River, then the river will have to be declared tapu and the waters will be closed off to them for all purposes so long as the discharge continues to flow. The Report of the Waitangi Tribunal on the Kaituna River Claim (Wai 4), Waitangi Tribunal, Wellington, 1984

[#TAP 11] In a brief summary of inter tribal warfare involving Ngāti Whatua in and around Tamaki in the 1820's the 1987 Waitangi Tribunal Report on the *Orakei* Claim

noted the relationship of tapu to bloodshed and warfare and what appeared to be the disposal of tapu land by transfer to a third party.

> "The next disease was the musket. In 1820 Hongi Hika from the north traveled abroad to obtain an advance supply. He used them to settle old scores with Ngāti Whatua and others and wreak a havoc unknown to conventional tribal warfare. In the Ngapuhi onslaught that followed, Ngāti Paoa on the isthmus were virtually wiped out. The bloodshed was so great that their lands were considered too tapu to return to, and were later readily ceded to the Crown." Orakei Report 1987, WAI 9), Waitangi Tribunal, Wellington, 1987, p.14.

[#TAP 12] In a Pü Wänanga with Te Mātāhauariki Institute, Bishop Manu Bennett noted that acted as a powerful corrective, underpinning and providing the sanctions for the customary legal system:

> "Tapu is a spiritual institution set up for political purposes, it is a form of control, and it controlled behaviour patterns, behaviour standards…The functionaries in that particular area seemed to be either the ariki or the tohunga. Generally nobody else used tapu…" Te Pü Wänanga – Bishop Bennett, Bishop Verco, Te Ariki Mörehu, Te Mātāhauariki Institute, Unpublished, April 2000.

[#TAP 13] In a subsequent Pü Wänanga with Te Mātāhauariki Institute, Dr. Päkï Harrison also talked about the socio-religious connotations of customary law and how tapu worked as a system of prohibitory controls in traditional Māori society:

> "If you want to delve into customary law and how it fits or how it could fit into modern society, you would have to go back and look into the deep philosophical basis of how these laws were created in the first place - under what circumstance and under what condition - because the law of tapu … was a powerful instrument of keeping civil order on people who were volatile, highly volatile…This law had deeply religious connotations where total commitment and faith to the power of that spirituality … played an enormous part in helping to maintain the disciplines required under those circumstances, so *these things were created for their time and they certainly worked for their time.* [Emphasis added]" Te Pü Wänanga- Dr Päkï Harrison, Te Mātāhauariki Institute, Unpublished, April 2000.

[TAP #14] Studying the works of Elsdon Best, Frederick Maning, John White and other writers on the concept of tapu, the Danish scholar, J. Prytz Johansen, came to the conclusion that the state of tapu was a necessary condition of traditional Māori life, offering his own synthesis of what makes the tapu customs an institution.

> "When the *tapu* institution disappears, fields, forests, and fishing grounds lie open to arbitrariness and a new protection is to be built up by the law as understood by the European. Furthermore, when the *tapu* disappears, how can the gods endure? Like all other great life theirs, too, must come to nothing without the protection of *tapu* The revolutions produced by the arrival of the Europeans in the communities of the primitive peoples will appear distant and shadowy to us…It is not so much a revolution as a catastrophe which breaks in on these communities…from outside come new ideals, new thoughts, new powers, and before they have really taken root in the minds of people, the whole of the old social order is shaken to its

deepest foundations. But this is not all. Not only nobility and kinship, honour, openhandedness, and rehabilitation are suddenly devaluated; it is a whole cosmos that collapses. To the Māori the central factor in this catastrophe is the fact the customs of *tapu* cease…what makes the tapu customs an institution is not strange and exotic rules of the game, but a profound respect for life, an awe in which now honour, now fear stands in the foreground. The awe does not regard life in general, but life in its various manifestations, and not even all manifestations, only life as included in the great fellowship of the kinship group as it extends into field, forest, and fishing grounds, and culminates in the chief, treasures, and sacred places." 1954, *The Māori and his Religion: In its Non-ritualistic Aspects*, I Kobenhavn: I Kommission Hos Ejnar Munksgaard, pp. 197-198.

[#TAP 15] Drawing on the traditional learning of the whare wänanga, on karakia and whakataukï to reveal the spiritual world of the Māori, particularly in Taitokerau where he comes from, Dr. Cleve Barlow writes as follows about tapu:

"There are many meanings and conditions associated with tapu. First and foremost, tapu is the power and influence of the gods. Everything has inherent tapu because everything was created by Io (Supreme God), each after its kind or species. The land has tapu as well as the oceans, rivers and forests, and all living things that are upon earth. Likewise, mankind has tapu…Everything has two sides or aspects, namely, good and bad. So it is with tapu; there is good tapu and there is bad tapu. We possess the capacity to choose what power or tapu we will follow. The devil has tapu, and so does the benevolent god…Tapu has also been extended to include all kinds of restrictions and prohibitions. Finally, the important thing to remember is that tapu comes from the gods, and embraces all the powers and influences associated with them." Tikanga Whakaaro: Key Concepts in Māori Culture 1994, Auckland, Oxford University Press, pp .128-129

[#TAP 16] In *Two Worlds*, the contemporary writer and anthropologist Dame Anne Salmond brings together previously separate views of the first meetings between Māori and Europeans. The use of both local tribal knowledge and European accounts of these meetings between 1642 and 1772 has resulted in a more balanced view of what happened and how each of the protagonists interpreted their experiences. Chapter Thirteen contains a graphic description of how Marion Du Fresne's ideas about Polynesian peoples were put to the test in the Bay of Islands in 1772, with fatal consequences not only for him and his companions but also for their Māori friends. Everything came to a head when the French committed a breach of tapu.

"The most virulently offensive of all of the French actions…one that was persistently talked of in the tribal records, was almost certainly committed without the offending visitors ever realizing what they had done. Marion had developed a habit of going on fishing and hunting expeditions in 'Tacoury's Cove' (Manawaora Bay), where fish and oysters were plentiful and there were many large birds to shoot. According to the tribal accounts, however, one of the coves in the bay was intensely tapu at this time, for some members of Te Kauri's Ngapuhi descent group Te Hikutuu had recently drowned and been washed up there on the beach…When Marion's men, accompanied by Ngaati Pou, had insisted despite the anguished protests of their friends on hauling their nets on a beach that was intensely tapu to Te Kauri's people, the die had been cast for a tragic sequence of

events. Not only were Marion and many of his men killed as a result of this decision, but also local Māori, especially of Ngāti Pou." (Salmond 1991: 386-87.

[#TAP 17] H. B. Hawthorn's study in acculturation of a Far North village in the later part of the 1930s shows how much more difficult it had become for the whānau to continue operating as a unit in the production of food following the dispersal of members into distant households. He discussed the effect of this on the cultivation of an important traditional crop, the sweet potato, the growing and harvesting of which required the intensive cooperation of a number of skilled workers working together for specified periods. New groupings were formed to carry out the work. Hawthorn commented on a number of other changes in the community, showing a shift away from an economy that was embedded in a setting of magic and religion:

> "Paralleling the changes towards a rational view of economics, the life of the woman in the Māori village has been lifted from the restrictions of *tapu*. This, however, gives her no respite from work…A man is pitied if his wife will not work on farm and garden…The sweet potato, which grows in the larger gardens, appeared and reappeared in the mythology of the forefathers of Kahukura; its care once helped to determine major features of the annual cycle of activities, and its importance caused countless brawls and inter-tribal wars. Today the mythological accompaniments have vanished from the cultivation of the sweet potato, it is no longer surrounded by *tapu* and manifold magical and religious observances; it no longer causes wars – though a brawl between neighbors may still arise from such practical threats to the crop as a straying pig. Yet much of the organization and method of its cultivation derive from pre-European times. (1944. *The Māori: A Study in Acculturation.* Menasha: American Anthropological Society (Reprinted, New York: Kraus Reprint Co. 1969).

[#TAP 18] In 1940, a survey of the process of acculturation that had taken place in New Zealand in the century following the signing of the treaty of Waitangi was published. Dr. Ernest Beaglehole, one of the scholars who contributed to this publication, noted that despite the isolation of Polynesian communities from one another, there remained marked similarities among them. He maintained that the Māori of New Zealand have remained essentially Polynesian in their language, social and economic life, religion, psychology and their response to European colonization although their culture has undergone many changes since their Polynesian ancestors first sailed from Tahiti six centuries ago:

> The spirits and gods of the Polynesian were consulted and propitiated either at simple shrines – sacred stones and places to which offerings were made in passing – or else through the medium of the priest at special religious structures. In New Zealand, however, we find nothing comparable to the elaborate religious structures and temples of the rest of Polynesia...The Māori priest was consulted in his house in the village. He went alone to the 'temple' to make offerings and consult his gods. Here again the Māori was able to simplify – in this case, his religion – as compared with Tahiti or Hawaii, just as, in another sphere, he was able to simplify the divinity that did hedge his chief…In many parts of Polynesia the priest was also an expert in the art of black magic. ...The job of the sorcerer was to cause sickness or death to befall a desired victim. In New Zealand the sorcerer worked on a bait object, that is, something that had touched the victim or

> was intimately a part of him – his hair, saliva, nail parings, food scraps, clothing – and placed this in a hole in the ground. Then he repeated incantations over the bait and invoked his familiar spirits or gods to kill the victim…Many Māori customs and forms of *tapu* seem best understandable as prophylactic measures against fear of possible sorcery...Some of the forms of *tapu* surrounding objects associated with a chief were likewise sorcery preventives. Protective incantations and ablutions were also used by the Māori as a sort of inoculation against black magic. Fear of sorcery was deep-seated in the Māori mind, beliefs associated with it being tenaciously held. In spite of cultural disorganization, today in New Zealand as in many parts of Polynesia, the old fears and attitudes survive – dormant for the most part but suddenly rising as conscious determiners of behaviour in times of crisis or untoward sickness. (Beaglehole 1940:55-6)

[#TAP 19] In *Between Two Worlds*, Dame Anne Salmond gave a number of examples illustrating how European and Māori cultures from the very beginning of contact have changed to accommodate each other. Going hand in hand with the more visible cultural adaptation at the material level (e.g., the use of new weapons and tools and the growing of new plants) were more subtle changes involving values and institutions. It was not always easy for the local people and the new arrivals to find workable solutions to the daily challenges of living together. In the following example from the Bay of Islands, the British missionary John Liddiard Nicholas created a dilemma for the chief Whiria. On the 5th of February, 1815, Nicholas decided to go with the Taiamai chief Te Moerenga and 13 other Māori when they paddled across from the ship *Active* to the Waikare Inlet to observe what they had been led to believe was going to be a battle between Whiria and another chief, Hinau, whose wife he had seduced. Both of these chiefs, however, paid allegiance to Tara and instead of fighting, they settled their domestic dispute by ceremonial exchanges. After the ceremonies, Nicholas, who admired the comb that Whiria was wearing on this occasion, decided to offer him a bill hook for it. But Whiria could not give away the comb casually. Being a tohunga as well as a chief the comb which sat on his head – the place where his ancestors alighted – was intensely tapu. Nicholas's offer could not be easily refused so Whiria accepted the bill hook. The next day, Whiria went back to the ship, bringing with him three other chiefs as his attendants in the ceremonial presentation of the comb.

> He asked Nicholas to come into the cabin, where he told him to hold up the palms of his hands. Putting Nicholas's palms together and taking hold of one of his fingers with one hand, he dipped the other hand in a basin of water and sprinkled water over Nicholas's right hand, chanting a karakia. Next he spat on his fingers and ran them across Nicholas's palms, continuing his chanting. Finally he took a piece of dried fish, which touched lightly to Nicholas's hands. He held this up to the mouths of each of the three chiefs in turn, and each bit a small piece from it. This part of the ritual was repeated three times in succession. Finally one of the chiefs gravely stepped towards Whiria and, taking the comb from his head, handed it silently to Nicholas. Nicholas received the comb and was about to put it in his sea chest when Whiria told him not to. He made him wrap it in a piece of paper and told him that it must stay there…The ritual of giving the comb to Nicholas was dangerous for Whiria, for his hau might have been damaged in the process. By sprinkling Nicholas with blessed water, he was placing him under ancestral protection. By touching Nicholas's hand with his own spittle, he was preparing him to handle a taonga (treasure) imbued with

> ancestral presence. Tapu things were kept in high places, away from food and women. If the comb had been kept in Nicholas's sea chest, it might have been walked over by a commoner or a woman, or have cooked food passed across it. The presence of these noa (profane) entities could harm the tapu of the comb, damaging Whiria's mana. (Salmond 1997:495-6)

[#TAPU 20] That the British and Māori brought very different perspectives to their early meetings was demonstrated in a series of exchanges that took place in 1815 which eventually resulted in the transfer of the mission site at Rangihoua from Māori to European control. The Europeans who were involved in the transaction viewed the document signed on the 24th of February as a 'deed of purchase'; it was the first to be signed in New Zealand. It denoted European notions about land and its transfer which, as Dame Anne Salmond pointed out, had no close equivalents in Māori. The exchanges brought two different belief systems together. A full appreciation of the Māori position requires an understanding of tapu, mana and all those other concepts, values and institutions behind their thinking and actions.

> That afternoon Marsden concluded exchanges for the transfer of the mission site with Te Uri o Kanae, presenting him with twelve axes and a parchment deed that had been drawn up at Port Jackson. Hongi took the parchment and carefully drew a representation of Kanae's moko on it, and Kanae added his mark to ratify the agreement. Kendall and Nicholas witnessed the deed for the settlers, and another local man witnessed it for the Rangihoua people, drawing the moko of one of his cheeks on the parchment. Kanae and Waari declared the area of the mission (about two hundred acres) now tapu to all but the white people. They announced that it only be entered with the missionaries' permission. Marsden described this transaction as a purchase, but it was rather a ritual transfer of mana over the land to the Europeans. By the agreement of the rangatira, as represented by the marks on their faces, the place was placed under the mana of the Europeans' gods and ancestors. This made it tapu to others, unless they were given permission to enter. (Salmond 1997:505)

[#TAP 21] Johannes Andersen gave examples recorded by pakeha medical practitioners of physical sickness and death caused by victims' belief that they had infringed tapu. Andersen states:

> "The reason the Māori took the utmost care not to violate tapu, not to break the law, was that punishment was severe, and swift, and sure...It was not necessary that the offender should be detected in the breach; his punishment commenced immediately he himself knew he had offended. So deeply was this engrained, this feeling of the inevitability of punishment for breach of tapu, that the end was certain; and the end was usually death...The Māori victim punished by the gods through himself for violation of tapu usually died within three days, it might be less, and not only did he die, but there was an actual feverish physical change during the process of dying" Johannes Andersen, 'Māori Religion', JPS, Vol.49, 1940, p.513 at pp.514-515

[#TAP 22] The widely respected Ngāti Whatua and New Zealand scholar, the late Sir Hugh Kawharu (1927 – 2006), summarised the significance of Tapu in the following way:

‘Apart from the sanctions of public opinion and institutionalized plundering, social control was maintained by the doctrine of *tapu* (religious restriction). Belief that any human or material body was imbued with a spiritual essence would have been enough to protect that body from ritual abuse. Such a body would be said to be in a state of *tapu* and violation of that state would bring immediate supernatural punishment on the offender in the form of death, injury or sickness. However, it was mortal man who would imposed *tapu* and he who could lift it. But the men who did this were not ordinary men, they were either of high rank, possessed of mana or prestige and therefore somewhat *tapu* themselves, or they were priests.’ Kawharu 1977, p.40

C) **Noa**:

Noa is a stative verb and adverb denoting freedom from restriction, uncertainty, efiniteness or randomness. In relation to proximity in time, it indicates the reign of completion, and thus can indicate indefinite extension of a state, or of the boundary between one state and another (these senses glossed in English by words such as “still”, “quite”, “just” and so on. As a philosophical term is the reciprocal of **tapu** (q.v.**),** indicating the absence of tapu or a state of freedom tapu. The causative form **whakanoa** refers primarily to this specific sense of **noa**, referring to the process or accomplishment of removing or neutralizing tapu. The term comes from Proto Eastern Oceanic **noa* “be common, worthless”; the adverbial use seems to be a Proto-Polynesian addition, employing the term also as a postponed particle indicating non-restriction. The explicit contrast with **tapu** is most clearly marked in Eastern Polynesian languages, including Hawaiian, Tahitian, Rarotongan and Tuamotuan [#NOA 01]

> Tureiti Te Heuheu, son of Te Heuheu Tukino, gave evidence to a Native Land Court hearing as to his association with various lands within the Rohe Potae Block. This included comment concerning a wähi tapu and his removal of that tapu"

A counter-claimant, Te Paehua Matekau, asserted that:

> "Tureiti's statement, that he took off the tapu of the land at Te Whiti when the burial place was burned, is not correct, I was there at the time, I did not see anything of it. It would not be according to Māori custom for a younger relative to take off the tapu from what belonged to an older people." (p. 32.)

She stated, rather that it was Hauauru that took the tapu off by killing the pigs. She in facts states that there were two killings of pigs. Hauauru himself maintained he took the tapu off:

> "...I took it off myself... Tureiti is not an ariki of mine that he could take it off." (p. 46.)

Nevertheless Tureiti Te Heuheu maintained:

> "It was Te Kahui who sent me and my companion to take the tapu off that place. I did not know at the time I was a "teina" of those "Tupapaku". I consider that if the teina possesses the necessary mana he would be able to take the tapu off. I know it is a Māori custom that it would no be proper for a teina of low degree to take the tapu off." Te Heuheu Tukino - Claim to have his children's names inserted in the Rohe Potae list, Alexander Turnbull Library, Wellington, MS-Papers-4760-5.

[#NOA 02] In an extensive discussion of Tapu in a MA thesis written in the 1970s, the Māori theologian Michael Shirres provides the example of the garment that is subject to the extended tapu of the child and mother who weaves it and is unable to eat with her hands. The illustration then shows the power of food to remove such tapu:

> "Ko taua weruweru tapu e kore hoki e wareware…. Ka nati te whaea I te kahu I te mea kaahore anoo te whaea I kai ringaringa noa; kia tunua raa anoo he horohoronga mo oona ringaringa, kaatahi ka kai ringaringa, te whaea." ([Translation in the original source] That tapu garment is not forgotten… The mother weaves a flax cloak for the child and, because of this, she is not free to eat with her hands until tapu is removed through food specially cooked as an overcoming or wiping off, for her hands. Then the mother eats with her hands.) 'Tapu: Being with Potentiality for Power', Thesis (MA-Anthropology), University of Auckland, 1979 pp. 34-35.

D) Mauri (also, **Mouri):**

This was a central notion in Māori philosophy, although in its abstract sense of "the essence which gives a thing its specific natural character" it had almost faded from memory by the 1960s, only to make a very strong resurgence in recent years, especially in discussions on genetic modification and the natural environment. The meaning of the word is difficult to grasp because it encapsulates two related but distinct ideas: the life principle or essential quality of a being or entity, and a physical object in which this essence has been located. Williams defines the abstract sense term first as "life principle", and equates the human manifestation of abstract mauri with "the thymos of man". The Greek notion of the mortal, but immaterial, *thymos*, embracing consciousness, activity, rationality and emotion (in contradistinction with the immortal but more quiescent *psyche*) probably parallels Māori thought on this aspect of mauri (and its contrast with the notion of **wairua**) as accurately as is possible in a brief English definition. There is certainly no single English word to express this concept. Joan Metge's definition, quoted in this work, covers the wider sense of the abstract connotations of mauri well; it is important to remember that the kinds of "thing" which the mauri integrates include ecosystems and social groups as well as objects and individuals. From the abstract senses of mauri come the expressions **mauri ora** (vital or living mauri – sometimes equated with "person"), **mauri rere** (fleeing mauri – "panic stricken"), and so on. The concrete representations or depositories of the **mauri**, particularly that of a cultivation, productive area of forest, fishery, community or social group, were also called **mauri**; when both the abstract and physical symbol were being discussed at the same time, the term **ariā** might be used for the concrete aspect of mauri. (It should be noted that in some recent writing, the terms *mauri* and *wairua* seem to be used interchangeably; this was not the case in the nineteenth century, by

which time the notions of "life essence" and "spirit", still combined in the cognates of *mauri* in some other Polynesian languages, had been separated in Māori thought). This is an ancient term, derived from the Austronesian **hudip* "to live", through Oceanic **ma'udip* (incorporating the stative prefix *ma-*) to Proto-Polynesian **ma'uri* "live, life (principle), alive". In modern Polynesian languages, cognate terms occur in Samoan (*mauli*, "seat of the emotions"), Hawaiian (*mauli* "life, seat of life, spirit", also Mauli Ola, a name for the god of health who is also called on to protect the integrity of a new household) and Rarotongan (with a similar range of meanings); the term has been refined and deepened as a technical philosophical notion in Aotearoa.

[#MAU 01] Karakia or incantations were performed to invoke the spiritual powers of the mauri. In 1872 a classic example of a "Karakia Mauri" was published in full in the Māori Newspaper *Te Waka Māori o Niu Tirani*. It was reported that this *karakia* was performed by Wiremu Pakau before the Governor and the Minister for Native Affairs, Donald Mclean, at a gathering at Putiki in November 1871. An extract follows. A translation is not attempted:

> Manawa mai ai te putanga o te ariki; manawa mai ai te putanga o te tauira Ka eke ki Rongorupe, ka eke ki Rangitahuahua. Tenei te whatu kei au kei te kaunga tapu. Ka mutu tenei whiti ka timata tenei i te whakaaranga i te mouri; Te mouri tu, te whiwhianuku, tu te whiwhiarangi, Kei te whiwhia i waho, kei te rawea i waho Puritia mai i waho, tawhia mai waho Tena to mouri ka whakapiki, tena to mouri ka whakakake; Ko te mouri o tenei ariki, ko te mouri o tenei tauira. Mouri kei runga, te mouri e rangi, mouri ka pu kei waho— Kei te whai ao, kei te ao marama... *Te Waka Māori o Niu Tirani,* Vol 8, No. 6, 21 February 1872, p. 49

[#MAU 02] In his major work 'The story of Aotea', a historical narrative of the migration of the Aotea canoe, the Reverend Thomas G. Hammond confessed on the subject of mouri: "I find more difficulty than in the interpretation of any other purely Māori idea." Nonetheless, Hammond deemed it necessary to attempt a fuller explanation of the meaning of certain "occult terms" introduced in the course of his writing:

> "We may intimate at the outset of our endeavor, that **" Mouri "** is not life, but that upon which life depends. Everything animate and inanimate has its own " Mouri." The Mouri "contributes to the distinction and success or good fortune of everything. Trees grow, land is fertile, birds are numerous, fish abound and men are skilful and prosperous, only while the "Mouri " remains inviolate. It is communicated and can be withdrawn at the caprice of any particular deity, and as Māoris always assume that all good things are the gifts of the gods, they also naturally suppose when anything declines or dies that it is traceable to some ceremonial or moral lapse on the part of the persons most concerned by the disaster. As Māori deities are but the creations of men, it is reasonable to find them described as subject to the caprice that commonly dominates men's actions and occasionally withdrawing the " Mouri " upon which men's wellbeing depended." Hammond, Rev. T.G. - *The Story of Aotea Church*: Lyttelton Times, 1924, p. 202.

[#MAU 03] Tamati Ranapiri is perhaps best known for his contribution to an understanding of the Māori concept *hau* and gift exchange, as told to and translated by

ethnologist Elsdon Best. Ranapiri was one of Best's key informants on a range of Māori subjects, including *mauri*. Writing to Best in 1907 in response to Best's enquiry about the mauri and hau of the forest. Ranapiri states:

> "*Ko te mauri, he karakia i karakiatia e te tohunga ki tetehi mea, ki te kohatu, ki te rakau ranei, ki tetehi atu mea ranei i paingia e te tohunga hei piringa, hei maunga, hei nohoanga mo te mauri, ka whakangawhatia ki tetehi o aua mea, ka waihotia ki te wahi ngaro o te ngaherehere takoto ai.* ([Translation by Te Mātāhauariki] The mauri is [transferred using] an incantation that is repeated by an expert over an object, a rock, a tree, or some other item that has been approved by the expert to act as a hiding place, holding place and dwelling place for the mauri. One of those places is then freed from any restriction and positioned in a hidden part of the forest.) Ranapiri, Tamati of Tikorangi, Manakau, October 7, 1907 to Elsdon Best. Best, Elsdon Māori notebook No 9, ATL Ref. qMS-0187

Ranapiri had written earlier to Best on this subject in 1895.

> Engari ko etahi maunga, me etahi ngahere, kaore he mauri, heoi ano tona mauri ko nga kakano tonu o era maunga, o era ngahere. Ko taua mea ko te mauri, he mana-atua, he mana hei whakahua i te kai, hei pupuri i te kai, kei riro ki etahi atu wahi, mauri ki uta, mauri ki te wai, ki nga awa, ki nga roto, me he mea he maunga kore manu, he ngahere kore manu, a he awa kore kai, ika, tuna, aha ranei, ka whakanohoia he mauriora ki taua maunga, ngahere, awa, roto ranei. Ka noho te kai ki aua wahi kore kai, nga manu ano ki uta, nga ika ano ki te wai, nga ika ano e noho ana ki nga wai Māori, me etahi o te moana nui e tae mai ana ki nga awa wai Māori…. Ko taua mea, ko te mauriora, he mea riro i te tangata te tango, ara i nga tohunga ano, me he mea ka rongo tetehi tangata mohio tohunga, tera tetehi maunga huahua, manu, a tetehi awa ika ranei, roto tuna ranei a ka haere taua tangata, tohunga ka kite i taua maunga, i taua awa ranei, i taua roto ranei. Ka mohio ia he mauriora te mea e whakahua nui i te kai o aua wahi, ka tangohia e ia te mauri, ka riro i a ia, a ka kore he kai mo era wahi…. Ki te he te whakahaere mo te mauri, a ka kore te kai, o uta, o te wai ranei, a tona wa (Ko taua mauri, he kohatu, he aha ranei.) Ko tenei ritenga ia kua ahua kore inaianei…" ([Translation by Te Mātāhauariki] The mauri is [transferred using] an incantation that is repeated by an expert over an object, a rock, a tree, or some other item that has been approved by the expert to act as a hiding place, holding place and dwelling place for the mauri. One of those places is then freed from any restriction and positioned in a hidden part of the forest. However, some mountains and forests do not have a mauri, the only mauri of those mountains, of those forests are their seeds. That energy, mauri, is a divine power, a power to make food plenteous and to retain possession of the food, for fear that it be carried away to other areas. There is mauri on the shore, in the water, the rivers, the lakes. If there are mountains without birds, forests without birds, and, rivers without food, fish, eel, and so on, then a mauri is placed in that mountain, forest, river, or lake. So, food inhabits those barren places once again; birds on the shore, fish in the sea, fish in the fresh waters, and those fish that dwell in the vast ocean and migrate to the fresh water rivers also return… That energy, mauriora, is left for man to retrieve, namely, for the experts. If a person knowledgeable of the skills required hears of a mountain that has many birds, or of a river full of fish, or a lake full of eels, that skilled person will look at that mountain, that river, or at that lake, and s/he will

know that a mauriora is causing the food to be overly abundant in those areas. S/he will remove the mauri, and taken away by him/her. Then, there will be no food for those places… If the transference of the mauri is bungled, in time, there will be no food on the shore or in the water. (That mauri, is resembled by a stone, or other object.) This practice is no longer commonplace. Ranapiri, Tamati of Tikorangi, Manakau 14 January 1895 to Elsdon Best. Tamati Ranapiri - Notes on bird and rat snaring and other traditional matters, ATL Ref. MS-Papers-1187-127

[#MAU 04] Takaanui Tarakawa was one of S. Percy Smith's main informants on Māori traditions and history. From 1893 he published papers in the *Journal of the Polynesian Society*, including a major account of the voyage of the Te Arawa and Tainui canoes from Hawaiki to New Zealand. Takaanui Tarakawa recalls how the tohunga Ngatoro-i-rangi left a stone at Moehau, or Cape Colville, on the Western side of the Bay of Plenty, as a mauri for the incantations of all the people on board the vessel recited to ward off evil. He further explains:

> "Na, ka whakamaratia ake; e rima nga **mauri** kei tenei motu, e haere ana i roto i te Karakia whakangungu. Te timatatanga, ko taua kohatu i Waiho nei ki Moehau ; tuarua ko te manuka i Whakatane ; tuatoru ko te rengarenga kei runga i te tuahu i Whangara ; tuawha ko te kiripaka a Ngatoro-i-rangi ano i titi ai ki te tihi o Tongariro i puta ake ai ko Ngauruhoe, te ngawha e hu ra i te tihi o te maunga ; tuarima ko te tuahau i Kawhia i Maketu, ko Ahurei te ingo o taua tuahu." ([Translation in the original, by Percy Smith) Now let me explain ; there are five *mauris* in this island which are used (or invoked) in the prayers (or invocations) for defence against evils. The first is the stone left at Moehau ; the second is the *manuka* tree at Whakatane ; the third is the *rengarenga* (or lilly) on the altar, or sacred spot, at Whangara ; the fourth is the flint-stone which Ngatoro-o-rangi stuck into the summit of Tongariro which caused the volcano of Ngauruhoe to burst out on top of the mountain ; and the fifth is the altar, or sacred place, at Kawhia, Maketu, the name of which is Ahurei. 'Coming of the Te Arawa and Tainui Canoes' in *JPS*, , Vol. 2, 1893, p. 222-223 and 234-235.

[#MAU 05] The early 20th century Māori scholar Hare Hongi of Nga Puhi provides another example of a karakia mauri in a collection of 'Māori poems, haka and songs':

Tenei te whatu kei a au
Kei te kauanga-Tapi te mauri
Tu te whiwhia nuku
Tu te whiwhia rangi
Kei te whiwhia i waho
Kei te rawea i waho
Purutia mai i waho
Tawhia mai i waho
*Tena te **mauri** ka whakapiki*
Tena te mauri ka whakakake
Ko te mauri o tena ariki
Ko te mauri o tena tauira
Mauri ki runga
Te mauri, e rangi!

Māori poems, haka and songs, Stowell, Henry Mathew (Hare Hongi), ATL Ref. fMS-Papers-0062-44.

[#MAU 06] A farewell speech from the Māori people was printed in the Māori newspaper *Te Pipiwharauroa* on the death in 1906 of Richard John Seddon (Rihiri Hone Hetana), Prime Minister of New Zealand. Seddon was Minister for Native Affairs from 1893 until the end of 1899. While sympathetic to Māori, his attitude was essentially paternalistic, promoting the alienation of Māori land on frequent visits to Māori tribes. Nevertheless, the author, in a typical Māori speech with heavy use of imagery and metaphor, likens Seddon to the mauri of the land and the people:

> "Takoto mai e koro kia tangihia koe e o iwi Aue! Ka mau te punga here o te waka nei. Ka ngaro ke te Kaihautu. Te Kakakura o roto i te pokai, te Puhi o Aotearoa, te kura whakahirahira, o Te Waipounamu, te **mauri** o te whenua, te mauri o te tangata, haere! haere ra! Haere atu e Pa! haere ki Paerau, takahia atu te one ki Haumu, hoatu ki era tini i te po! Waiho te iwi mana e mae noa!" ([Translation by Te Mātāhauariki] Lie in state my Sire, to be lamented by your people. What grief! The anchor of this canoe has been caught. The helm master has gone, the sentinel bird from within the flock, the Wind of the Long White Cloud, the important treasure of the South Island, the essence of the land and the people, Farewell! Farewell, Be gone Sir! Travel on to the many distant horizons, trample the earth to Haumu to go with the many of the night, leaving the people to despair in pain.) *Te Pipiwharauroa*, No. 100, July 1906, p. 9.

[#MAU 07] Tuta Nihoniho, a principal of the Ngāti Porou tribe, related the saga of the building and launching of the Takitimu canoe to historian James Cowan. Cowan (1870-1943) can generally be relied on to relate his informant's narrative verbatim when quoting. According to Nihoniho, two prominent figures in the story of the Takitimu canoe were Ruawharo and Tupai who procured the necessary rituals for the undertaking from the Māori wānanga or higher school of learning. Tuta gives some brief explanatory comment about the wānanga and its subject matter. He lists the various Atua of te Rangi (Heaven), te Whenua (Earth) and te Moana (the Ocean) and gives their associated mauri for which there were, he maintains, rituals proper unto each. This appears as one of the earliest written statements indicating that, to the Māori mind, everything within the world possessed a mauri:

> " [Rangi] He **mauri** to te rangi, to te ra, to te marama, to nga whetu, to te tau, to te ura, to te hau, to te ua, to te kohu, to te hotoke, to te raumati, to te po, to te ao (me nga karakia e rite ana mo era)…[Whenua] He mauri to te tangata, to te kararehe, to te whenua, to te maunga, to te hiwi, to te rakau, to te kai, to te mahi, to te manu, to te awa, to te manga, to te roto, me te tini o nga mea o te whenua … [Moana] He mauri to te moana, to te rimu, to te taunga ika, to te tatai-koura, to te ika ririki, to nga tohora, to nga ngaru, me te tini o nga mea o te moana …" ([Translation by Hare Hongi in the original] All things have a mauri (soul) : the Heaven, the Sun, Moon, Stars, Year, Lightning, Wind, Rain, Fogs, Winter, Summer, Darkness, and Light ; and that there are rituals appropriate and peculiar to each… Man has a soul, as also has the beast, the earth, the mountain, range, tree, foods, work, bird, river, branch, lake, and the many things of the earth ; and that there are rituals proper unto each …. The ocean has its life-essence, also the seaweed, fishing-ground, the crayfish in its germinations, the small fish, whale,

wave, and the host of things of the ocean, and that there are rituals appropriate and peculiar to each ….) *JPS*, June 1, 1908, vol. 17, n. 66, pp. 95-96 & 102.

[#MAU 08] The *New Zealand Times* in1915, reported that a "young native tohunga" by name of Nohi Te Ngohe had been creating a good deal of interest in the Waitara District by finding the locality of certain stones endowed with great powers according to local tradition:

> "The finding of a stone at Bell Block is his latest achievement. A big crowd of Natives, as well as several Europeans were in attendance, the Māoris wishing the Pakeha to be present. The tohunga chanted and then prayed to the god of the Bible. The power, it is said, came to him, and he indicated the spot where the stone would be found. Two Europeans took a hand with the spade, and after going down between four and five feet. They struck a hard substance. It was the **mauri**. It was rounded in form and carried on the top, with a hole in the side. In the hole the Māoris said there was a taniwha. It appears that this stone was stolen from Waiongoro. Some 45 years ago, since which time the Māoris there have had few fish. Now that the stone has been recovered it is believed that there will be plenty. It is certain that the stone had laid where it was found for many years." *New Zealand Times*, 24 June 1915.

[#MAU 09] Like Tamati Ranapiri above, Hari Hemara Wahanui of Ngāti Maniapoto also described the function of the mauri in correspondence in1917 to Elsdon Best who was then Director of the Dominion Museum. Best had requested information about various Māori agriculture matters:

> *"Mo te **Mauri** tenei. kei te taha tonu o te wakawaka tenei e tu ana, rite tonu ki te tangata te ahua. ko te mana o taua mea no Hawaiki ra ano. Me tetehi wahi oneone, kotahi pea aunihi te nui, ka waiho i te taha o te mauri kia uruora ai te mara kumara. He kotahi te mauri kia waiho hei oha ma nga uri whakatupu. Engari ko tana whakaatuatanga no Hawaiki, he mea whakau ki taua kohatu na nga tohunga nunui o mua: he mea whakatu ki te tuahu o te mahi kai..."* [Translation by Margaret Orbell, 25/3/1969] Concerning the mauri. This stands right beside the division, and in appearance is just like a human being. The power and prestige (mana) of that object comes from Hawaiki. Some earth - about an ounce of it - is placed beside the mauri so that the kumara garden will flourish. The mauri is a stone that has been passed down as a bequest to succeeding generations. But its endowment with supernatural powers (whakaatuatanga) is from Hawaiki. They were established in that stone by the high priests of former times, and it was placed in the sacred place (tuahu) associated with food production.) 'no.5. Two letters from Hari Heemara Wahanui to Elsdon Best : 25 June 1917', edited and translated by Margaret Orbell, Dominion Museum Records in Ethnology., Wellington : 1946-1974.

[#MAU 10] Ben Keys, in diary entries (June – October 1920), related his travels through the Bay of Plenty and Horowhenua districts as a Native Land Agent. Keys includes discussions about Māori practices and customs encountered and his impressions of them. Keys narrates the story of the 'whatu mauri' (mauri stone) Horoirangi. Belonging to the Te Arawa people, it was carved out of a soft sandy stone and stood on a small island in a crossing of the Mawae and Utuhina rivers.

> "Now for the story of Horoirangi, so far as I know it she represents in tangible form the "**mauri**" of the birds, trees etc of the forest. "Mauri" is a word that I can hardly translate but it is something like "life principle", or the essence of vitality, apart from the life or vitality itself, and apart from the material containing life or vitality. Horoirangi is not the mauri itself merely the representation of it. Horoirangi was the outward visible sign of the source or essence or principle of the vitality of the forest of Ngātituara and the inhabitants thereof." Keys, Ben, Diary Entries, Alexander Turnbull Library, Wellington, MS-Papers-0407-32

[#MAU 11] As evident above, Elsdon Best collected a great deal of information from Māori informants and published widely on Māori social life and customs. Best recognised the central importance of mauri among the spiritual concepts of the Māori, particularly for forest and agricultural lore:

> In native belief, all things possess a *mauri*. This term is sometimes rendered as "soul," as in the case of the *mauri* of a person. Not only man, however, but all things, trees, plants, the lower animals, birds, fish, stones, forests, streams, &c., &c., possess a *mauri*. In these cases it may be rendered as life principle, but the Māori mind seems to recognise certain spiritual attributes in the *mauri* of even inanimate objects. Nothing can exist without this principle, and if it is polluted in any way, then its physical basis is in parlous plight. For instance, should the *mauri* of a forest be polluted, then that forest loses its fertility, fruits become scarce, and the birds desert it. If the *mauri ora* of man meets with a like misfortune, then his welfare suffers grievously, he being exposed to all evil influences. The idea seems to be that the loss or pollution of this spiritual life principle deprives its basis of the protection of the gods, a fact that spells disaster to it.

[#MAU 12] Judge F.O.V. Acheson (1887-1948) was a keen student of Māori customary concepts and practices and published several articles on this subject. This interest was reflected in his judgment for the Native Land Court in the Lake Omapere case of 1929 where Acheson accepted that Māori tribes owned lake beds under Māori customary law and that the Land Court should accordingly issue titles to lake beds:

> "To the spiritually-minded and mentally-gifted Māori of every rangatira tribe, a lake was something that stirred the hidden forces in him It was (and, it is hoped, always will be) something much more grand and noble than a mere sheet of water covering a muddy bed. To him, it was a striking landscape feature possessed of a **'mauri'** or 'indwelling life principle' which bound it closely to the fortunes and the destiny of his tribe." *Bay of Islands Native Land Court Minute Book*, vol 2, pp 253–278.

[#MAU 13] In his comprehensive study of the economics of the New Zealand Māori, the anthropologist Raymond Firth (1901-2002) discussed the "magical attitude" of the Māori towards the natural world in terms of mauri and the related concept of tapu (q.v.). In the absence of a modern scientific knowledge, the Māori turned to his own conduct in trying to make sense of the inexplicable and unforeseen accidents that affected the natural resources upon which he depended for his sustenance. For example, he took extreme care in the economic undertakings of daily life so as not to

interfere with the mauri of things. According to Firth, Elsdon Best's translation of mauri as life principle was "probably the most fitting translation that can be devised":

> "It was the old Māori belief that every natural object or aggregate of objects possessed a spiritual essence, a non-material core, or life principle (***mauri***), and to this was due their vitality, even their very existence. If it were forest, for instance, on the maintenance of this vital principle depended its fertility and productive powers… Fisheries, too, had their *mauri,* representing their productivity, as had all other types of natural resources, and man himself. In its nature this *mauri* was an intangible, imponderable essence, impersonal in character, and not to be confused with any idea of indwelling spirit…*Mauri* must not be confused with mana…*Mana* is a quality of a thing, not an intrinsic part of its constitution. A man can lose his mana and live; he is simply bereft of all special power, and hence of social authority. But if a man lose his mauri, he must die; his vital principle has been reft from him…Everything in nature, then had its physical basis and its psychic counterpart; material form, and vital essence. Now this latter was capable of being affected by external agency, of being contaminated, or being destroyed by magical spells. And in such case the object itself, its vitality being gone, must inevitably perish and decay. Though the physical form remain, its virtue has departed… Naturally the idea of *mauri* was closely bound up with that of the *tapu (q.v.),* the sacredness of things, which ultimately rested on the protection of the gods." *Economics of the New Zealand Māori*, 2nd Edition, Government Printer, Wellington, 1959 pp.254-255.

[#MAU 14] Having visited Mahia Peninsula in 1924 and seen the famous mauri of the whales known as Ika-whenua, W.J Phillips recorded details of the mauri as given to him by the late Mrs. Maata Kiira of Opoutama, near Te Mahia. Her father had written a manuscript including the traditional story of the mauri:

> "It seems that Kupe first discovered the powers of the ***mauri***; and the first immigrants settled on Mahia because of its fame. Ruawharo was the first to land with sand from his homeland. This he sprinkled on the beach and the scared mauri responded by enticing whales ashore, though I gathered that the mauri had been functioning long before this and was highly regarded by the pre-Fleet people. (p. 41-42) Phillips also quotes Major Pine Taiapa who had given him the following story: "Ruawharo settled at Nuku-taurua and built his pa called Waha Toa at Oraka. His first act was to plant the ***mauri*** of the whales and fish of the sea. Then he built his second pa named Tiro-tiro Kauika on the north side of Nuku-taurua. He married Hinerakaia and had three sons, Matiu, Makaro and Mokotu-a-raro. In order to extend the feeding grounds of whales and fish he planted his children as mauri, Matiu near Waikokopu, Makaro at Oropao-a-nui, Moko-tu-a-raro at the mouth of the Ngarururoro river near Clive, Hawkes Bay. All of them turned into rocks, which can be seen today. 'Ika-whenua: the *mauri* of the whales on Mahia Peninsula'. *JPS*, Vol.57,1948, p. 41 at p.43

Yet another account was given earlier to Elsdon Best by Hori Ropiha and titled 'Te Mauri o Te Pakake Kei Te Mahia':

> "Na, ko te **mauri** o te pakake kai Purakautahi i Te Mahia, kai reira e takoto ana, rite tonu te ahua ki te pakake. Ko te mauri tera o te pakake, ko te take tera e haere

mai nei te pakake ki Te Mahia, haere tonu mai ki uta. Ahakoa haere te pakake i te nui o te moana ka mahara ake noa ano ki to ratou mauri, ka haere ano ki Te Mahia. Na, ka kite nga tangata o tera wahi, o Te Mahia, i te kauika pakake e haere ana i waho kua mohio ona tangata e haere atu ana ki uta. Na, ka tapu te one, e kore rawa te tangata e haere ki te one ; ki te takahia te one e te tangata, ahakoa tata te kauika pakake ki uta, ka hoki ano ki te moana.. kia pae rawa te pakake ki uta, mate rawa ki te one, katahi ano ka haere atu nga tangata, he haehae kau te mahi. Na, he mauri to nga pakake, he mauri to nga tangata, he mauri to nga tuna, he mauri to nga manu, he mauri to nga ika, na reira i mate ai enei mea katoa i te makutu ; ki te makututia e te Māori enei mea, ka mate, ngaro tonu atu ; ahakoa nui enei mea, ki te makututia ka ngaro." ([Translation by Te Mātāhauariki] The mauri of the whale resides at Puakautahi at Te Mahia and is similar in shape to a whale. That is the mauri of the whale and the reason why the whale comes to Te Mahia and beaches itself there. Even though the whale traverses the expanse of the ocean, it does not forget its mauri and journeys to Te Mahia. Now, when the people of that place Te Mahia see the whale pod out at sea they know that they are coming to beach. That is when the shore becomes tapu and no one goes down to it. If a person goes onto the beach, no matter how close the whale pod is, they will return to the sea. When the whale beaches and dies, then the people go down and go about cutting it up. ...Now, whales have a mauri, people have a mauri, eels have a mauri, birds have a mauri, fish have a mauri, therefore all these things can be destroyed by makutu ; if the Māori bewitches these things, they will be no more,, no matter how many there are of them, if they are makutu'd they will be vanished.) ATL Ref. MS-Papers-1187, Folder 22.

[#MAU 15] One of the most important of all birds to the Māori was the kuku, kukupa, kereru, or pigeon, whose numbers by the 1950s had declined alarmingly, mainly due to the felling of the forests and the introduction of firearms. Lamenting the destructive nature of hunting the bird with firearms, Hemi Bennett describes in detail past practices for snaring kereru. Crucial to this was the mauri or talisman:

"During the bird snaring season the forest was under strict tapu. In each area resided a talisman in which the powers of the gods who ruled over the forests and their products were held. This material talisman was called a **mauri**. It might be a prominent stone or one of unusual shape, or perhaps it might be a special tree or hill. It could be practically any object. The mauri retained the mana of the forest and ensured that it was frequently visited by numerous flocks of birds. It also attracted birds by protecting the fertility and productivity of the forest. Offerings would be made and ceremonials performed at the mauri." 'The Kereru Yesterday and Today', *Te Ao Hou*, No. 21, December 1957, p. 45.

[#MAU 16] In the Waitangi Tribunal's Pouakani Report in 1993, claimants at the hearing gave evidence describing the importance of forests and forest resources. The proper maintenance of the mauri, they claimed, ensured the continued wellbeing of the forest, both as resource base, and valued taonga. Eru Te Rangietu described a wahi tapu associated with bird snaring at Tuaropaki bush. It was a mauri located in a special tree:

"The owners or custodians of it were Te Arawaere and Te Maruao, my father. The magic tree is at Te Tarata (the mauri was a piece of wood tied up in a peculiar fashion with thongs and supposed to possess some magic influence on birds

> causing them to flock in great numbers to any desired locality). I know the spot where the mauri was kept in a hollow rimu tree .... The mauri I mentioned was a stick two or three feet long. I never approached very near it, as it was tapu. I have seen it in my father's hands, and have heard him repeat incantations to it. It was very ancient. I don't know which of the ancestors made it." *The Pouakani Report 1993* (Wai 33), Waitangi Tribunal, p.273

[#MAU 17] In the *Huakina* case in1987 Justice Chilwell in the High Court considered whether the provisions of the Water and Soil Conservation Act 1967 could embrace an objection on the grounds that discharge or cowshed effluents might prejudice the interest in the spiritual value of a river or the interests of the public generally in that spiritual value. The Judge affirmed the relevance and admissibility of Māori spiritual, cultural, and traditional relationships, and noted the Waitangi Tribunal's observation that: "A river may be a taonga as a valuable resource. It's 'mauri' or 'life force' is another taonga. We accept the contention of counsel for the claimants that the mauri of the Waikato River is a taonga of the Waikato tribes. The mauri of the Manukau Harbor is another taonga.' *Huakina Development Trust v Waikato Valley Authority* [1987] 2 NZLR 188, at p.194

[#MAU 18] Important traditional cultural concepts and knowledge are being used and interpreted in many modern situations, contexts and disciplines, such as genetic engineering. Genetic modification has polarised people's opinions. A Royal Commission on Genetic Modification conducted hearings and hui and received submissions from people all over New Zealand, including Māori. Commenting on transgenic animals as a case study, the Commission noted:

> "Māori differed from Pakeha submitters in the use of the concept of mauri to explain why transgenics involving living creatures was wrong. Mauri is the life energy or the soul and is shared by all living things. Even inanimate objects like cliffs, stones and especially water have their own mauri. Many submitters took the view that mixing this mauri by creating transgenic animals was wrong." *Royal Commission on Genetic Modification*, Wellington, 2001, p. 35.

Having quoted a number of Māori, the Commission concluded that it seemed that there was sometimes confusion of this concept with mauri, and the deeper level of discussion was not evident.

[#MAU 19] Rev. Māori Marsden (1924-1993) was a member of the Tai Tokerau peoples of the north and both an ordained Anglican minister and a graduate of the whare wānanga, the traditional tribal centre of higher and esoteric learning. His perspectives on Māori matters have been widely influential:

> "Immanent within all creation is ***mauri*** - the life-force which generates, regenerates and upholds creation. It is the bonding element that knits all the diverse elements within the Universal 'Procession' giving creation its unity in diversity. It is the bonding element that holds the fabric of the universe together.

Marsden also discusses the relationship between mauri and hau:

> A synonym for **mauri** in certain contexts is hau (breath). 'Hau-ora' 'the breath of life' is the agent or source by and from which mauri (life-principle) is mediated to objects both animate and inanimate. *Mauri-ora* and *hau-ora* as applied to animate objects are synonymous. Mauri without the qualifying adjective 'Ora' (life is applied to inanimate objects; whilst hau is applied only to animate life…. Mauri was the force or energy mediated by hauora – the breath of the spirit of life. Mauri-ora was the life-force (mauri) transformed into life-principle by the infusion of life itself. *The Woven Universe: Selected Writings of Rev. Māori Marsden* / edited by Te Ahukaramü Charles Royal, Otaki, N.Z.: Estate of Rev. Māori Marsden, 2003, p. 44.

[#MAU 20] John Rangihau conducted schools of learning in culture and history for Tūhoe students and young people, leading to the establishment in 1971 of regular meetings known as Hui Ahurei a Tūhoe. As a founding Māori studies lecturer at Waikato University, Rangihau influenced the minds of many students. Delivering a lecture at a gathering on a Nga Puhi marae, Rangihau comments

> "Have a look at this peculiar word called **mauri**. A word which almost defies interpretation. It defies interpretation because it means so many things. For instance it means the ethos which is best explained by … the Greek word ethos or life-force, life-character, call it what you like. But this mauri has being defying interpretation for so many years because there are very few people who understand it because mauri for the Māori is the life force that he gives not only to persons, but also to inanimate objects so that this meeting house has a mauri of its own and in some cases they actually … put the mauri in certain areas of their meeting houses and mauri for them is not only a personalised thing but it gives life to everything that he knows. Not only trees … or anything of this nature but also his concepts so that whaikorero [speechmaking] has a mauri of its own, so that whakapapa has a mauri of its own and so that everything inanimate or otherwise has this particular life-force or ethos." Sound Archives, MPT 2329.

[#MAU 21] The saying 'Tihei Mauri Ora' comes from when Hineahuone (the first made woman) had life breathed into her. The tihei is like the sneeze when a child is born, the mauri is the force and the ora is the life. Sometimes used at tangihanga is the saying 'Tihei Mauri Mate' as the expiration of the last breath of life. Pateriki Rei was a noted kaumatua of Ngāti Toarangatira and Te Arawa. Speaking to broadcaster Hare Williams on the subject of the marae and kawa, Rei discusses the appropriateness of the use of the phrase 'Mauri Mate' during the delivery of a speech:

> Tihei mauri ora. Engari ko Tihei Mauri Mate no naia tonu nei. Ki ahau nei, karekau he mauri mate … karekau he matenga o tena mea te mauri… he mea ora … nga mea katoa he mauri tona, he mauri ora. Karekau he mauri mate … Ahakoa he aha, he rakau, he kohatu, ahakoa ka rereke tona ahua, ko te mauri o roto, he mauri ora … ko te rakau e tipu ana … ka hinga, kua rereke tona ahua, engari kare ke e mate te mauri o roto, ka tikina atu te rakau raka, ka kania hei papa hanga whare. Na, kua rereke tona ahua, engari te mauri o roto, kei te kitea, kei te ora tonu... ahakoa pehea... kei te whakarerekengaia taua rakau raka, ko te mauri kei te ora tonu, pera ano ki te kohatu, ki te maunga … kare te mauri e mate. ([Translation by Te Mātāhauariki] Behold the breath of life. However this saying, Tihei Mauri Mate is from modern times. To me, there is no such thing as

> a mauri mate. The mauri does not die. It is a living thing … everything has a mauri, a life principle. No matter what it is, a tree, a stone, no matter if its form changes, the mauri within lives … a tree grows … and then is felled. Its form changes but the mauri within does not die. The tree is taken and milled for timber to build a house. Now, its form has changed, but the mauri within continues to live… no matter what form that tree takes, its mauri continues to exist as is the same with rocks, with mountains… the mauri does not die." Sound Archives, MPT 9486.

[#MAU 22] In his comprehensive study of the economics of the New Zealand Māori, the anthropologist Raymond Firth discussed the "magical attitude" of the Māori towards the natural world in terms of mauri and the related concept of *tapu (q.v.)*. In the absence of a modern scientific knowledge, the Māori turned to his own conduct in trying to make sense of the inexplicable and unforeseen accidents that affected the natural resources upon which he depended for his sustenance. For example, he took extreme care in the economic undertakings of daily life so as not to interfere with the *mauri* of things. Elsdon Best's translation of *mauri* as life principle is "probably the most fitting translation that can be devised" according to Firth:

> "It was the old Māori belief that every natural object or aggregate of objects possessed a spiritual essence, a non-material core, or life principle (*mauri*), and to this was due their vitality, even their very existence. If it were forest, for instance, on the maintenance of this vital principle depended its fertility and productive powers… Fisheries, too, had their *mauri,* representing their productivity, as had all other types of natural resources, and man himself. In its nature this *mauri* was an intangible, imponderable essence, impersonal in character, and not to be confused with any idea of indwelling spirit…*Mauri* must not be confused with mana…*Mana* is a quality of a thing, not an intrinsic part of its constitution. A man can lose his mana and live; he is simply bereft of all special power, and hence of social authority. But if a man lose his mauri, he must die; his vital principle has been reft from him…Everything in nature, then had its physical basis and its psychic counterpart; material form, and vital essence. Now this latter was capable of being affected by external agency, of being contaminated, or being destroyed by magical spells. And in such case the object itself, its vitality being gone, must inevitably perish and decay. Though the physical form remain, its virtue has departed… Naturally the idea of *mauri* was closely bound up with that of the *tapu (q.v.),* the sacredness of things, which ultimately rested on the protection of the gods." *Economics of the New Zealand Māori* (2nd Ed, Government Printer, Wellington, 1959) at 254-255.

E) Ea:

The primary meaning of this word is "to appear above water or the horizon". Among a number of metaphorical and analogous extensions is a very significant socio-legal concept that of having brought a process or series of transactions to completion, expressed in English translations as "avenged, requited, paid for, satisfied", with the implication of a definitive end, a "full and final" settlement of a debt or grievance. It is derived from the Proto-Polynesian word **e'a* "emerge, appear on surface of water after being submerged", a meaning retained in many Polynesian languages. In

Eastern Polynesian languages it has many additional abstract senses, for example in Hawaiian its meanings include "sovereignty" and "independence".

Entry Guide. All of the examples of **ea** in *Te Mätäpunenga* are in contexts dominated by the concept of **utu** (q.v.). One of these appears below, two under the title **utu** (#UTU 02 and #UTU 13), one under **köhuru** (#KHR 01) and one under **manaaki** (#MKI 01). In all cases **ea** denotes that the cycle of **utu** (in the sense of a required response, whether malevolent or benign) has been completed or broken and a resolution reached. • [#EAX 01] At the beginning of the 17th Century, Te Kawa-iririangi, Maniapoto's oldest child, married Märei and Maroä, the twin daughters of a Waiohua chief, and went to live with their people in Tämaki. He was murdered at Maunga-whau (Mt Eden) by one of his brothers-in-law when Märei was about to give birth.

> I te matenga o Te Kawa-iririangi i runga i te patu koohuru ka waiho hei take whakaheke toto, aa, he maha hoki nga whakatupuranga kaatahi anoo ka ea tana mate. (When Te Kawa-iririangi was treacherously killed it became a cause for the spilling of blood but it was many generations before his death was avenged.) Pei Te Hurinui Jones and Bruce Biggs, Nga Iwi o Tainui, Auckland University Press, 1995, p.228-9 [Translation in original].

Professor Hirini Mead provides further explanation of ea:

> Ea is to indicate the successful closing of a sequence and the restoration of relationships or the securing of peaceful interrelationships which value underpins most tikanga. Ea is satisfaction. In war, the notion of ea refers specifically to revenge, which is a limited and one-sided aim, or towards securing peace between both parties, which is more difficult to achieve. In the case of muru, relationships have been upset and a new set of relationships is validated at great cost to one party. … In the context of infringements upon tapu, the response selected reduces the level of tapu to a state of noa, thereby restoring the balance and so reaching the deserved state of ea.[7]

F) Ritenga:

This term denotes a normal way of doing things, such as a custom or practice. It may be loosely connected with the causative *whakarite*, its nominalised form *whakaritenga*, derived from *rite* "like, equaled, agreed to" and denoting preparation, arrangement, and balancing (either physically or by fulfilling an agreement or obligation). The root word and its derivatives are unique to Aotearoa.

Entry Guide. The use of this term generally conveys the sense of customary law, especially in the sense of procedural law, that is, important customs and practices which ought to be observed and honoured. Variations on this theme will be found in many entries in Te Mätäpunenga, for example under the Titles Ahi Kä ([#AHI 08]), ([#MKO 01]), Mana Moana ([#MMO 01]), Manaaki ([#MKI 02]), Mauri ([#MAU 03]), Ohäkï (OHA [05]), Rohe ([#ROH 01]), Tangihanga ([#TNG 10]), Täpae toto ([#TPT 01]), Tuku ([#TUK 08]), and Utu ([#UTU 01], [#UTU 06]). Its connotations

[7] Mead, Hirini Moko, *Tikanga Māori: Living by Māori Values* (Huia Publishers, Wellington, 2003) at 31.

include the proper ordering of knowledge (Wänanga [#WAN 01]) or of a decision or statement (Whakaae [#WKA 01], [#WKA 02]), and can include the provisions or scope of state law, as in a case to answer (Tohunga [#TOH 02]), or law-abiding endeavours, (Māoritanga [#MRT 02]). In one entry (Tuku [#TUK 03]), a particular instance of the application of *ritenga Māori*, Māori customary law, is contrasted with *te ture roia* (state law) and *te ture tapu* ([Christian] moral law).

[#RIT 01] During the discussions preceding the signing of the Treaty of Waitangi, the topics of religious freedom and customary law were both raised. In response to a question from the Catholic Bishop Pompallier, the British Governor-designate, William Hobson, agreed to a statement which was read to the assembled chiefs. It is often referred to as the "fourth article" of the Treaty, although it was not incorporated into the document signed by the chiefs. However, the incident was recorded by both Pompallier and the CMS missionary, William Colenso:

> E mea ana te Kawana ko nga whakapono katoa o Ingarani, o nga Weteriana, a Roma, me te ritenga Māori hoki e tiakina ngatahitia e ia. (The Governor says that in their entirety the faiths of England, of the Wesleyans, of Rome, and also the Māori *ritenga* shall alike be protected by him.)

G) **Tatau Pounamu:**

Literally, "greenstone door", a metaphor of enduring peace, often used in reference to both an event (for example a marriage between high-ranking people from each side of a conflict) and a precious object. Pounamu (greenstone jade) was very highly prized, and a "greenstone door" would be an indestructible force barring the way to further conflict. Both the idiom and its constituent parts are indigenous to Aotearoa. Although in modern Māori, the word *tatau* also refers to a conventional hinged door, that of the idiom would have been in the style of the traditional door, a large slab of wood which had to be slid across or clear of the doorway. A physical *tatau pounamu* would thus have been virtually immovable.

[#TAT 01] The phrase "tatau pounanu" occurs in a number of whakatauäkï which note both the desirability of such arrangements and the danger of disrupting them. For example:

> Kei whati ngä räkau o te tatau pounamu i muri nei, kei pöhëhë koutou ki ngä ara körero a ö koutou tüpuna.
>
> Mead and Grove (2001, p. 208) translate this as 'Take care afterwards not to break the supports of the greenstone door, lest you stray from the precepts of your ancestors,' and add the comment: "In other words this warns not to break the enduring peace lest trouble result."

Similarly:

> Me tatau pounamu, ki kore ai e pakaru, ake, ake. ('Let us have a greenstone door that will not be broken, ever, ever.') Ibid., p.302)

[#TAT 02] The Tainui scholar Pei Te Hurinui Jones (1898-1976) records the arrangement between Hongi Hika and Te Wherowhero which secured a lasting peace between their respective followers.

> "Immediately following the defeat of Huiputea at Otorohanga and the precipitate retreat of Hongi Hika and his Ngapuhi army from Kawhia, overtures for peace were made by the Ngapuhi leader to Te Wherowhero. The result of the meeting which subsequently took place was the giving in marriage of Matire (a senior cousin of Hongi Hika in the aristocracy of northern tribes), to Takiwaru or Kati, Te Wherowhero's younger brother. This was intended to be a permanent peacemaking or, as the Māori term has it, a *tatau pounamu* (a greenstone door)." (1959, p. 148)

[#TAT 03] Waata Hipango of Wanganui, in his electioneering campaign for Western Māori in the Parliamentary elections of 1899, notes the relationships between his tribe and that of others in the electorate. In making reference to Tuwharetoa of the Taupö district, he recalls the state of peace symbolized by Rangipo, a district where the territories of the Tuwharetoa and Whanganui peoples meet.

> "E Tu whare toa o kotahi aua o tatou tupuna matua i te wa hoia aua ratou. E takoto nei te **tatau pounamu,** i runga o Rangipo..." ([Translation by Te Mātāhauariki] Tuwharetoa, our ancestors were one during their time. The greenstone door lies over Rangipo.) *The Jubilee: Te Tiupiri*, Vol. 2, No. 63, 12 October 1899, p.13.

H) **Körero**:

This word integrates actions and activities involving verbal communication. Thus as a verb it covers the notions of saying, telling, speaking, talking and discussing, and as a noun functions according to context to denote speech, conversation, oratory, narrative, story, discussion and news. It comes from Proto Nuclear Polynesian **kölelo* "speak, orate, recite", which itself is probably connected with Proto Polynesian **'alelo* "tongue". Its use in the sense of traditional narrative and history is most closely reflected also in the use of the cognate form in Rarotongan; as a term for oratory and formal speech it is used similarly in most Eastern Polynesian languages.

[#KOR 02] Mead and Grove give the following saying illustrating the regard for 'dialogue' in deliberations of the community noting particular interest in the play of words: *muhukai* being literally 'stupid food' or 'food of stupidity':

> Tā te rangatira tāna kai he kōrero, tā te ware he muhukai. ([Translation by Mead *et al*] The chief's sustenance is discussion but the low-born is inattentive.) No. 2243, Mead, H. M and Grove, N. Nga Pepeha a ngā Tīpuna, Wellington, Victoria University Press, 2001, p. 362.

I) Mana Korero:

Mana in relation to speech and communication, thus authority to speak on behalf of a community or people. From mana (q.v.) and körero (q.v.)

[#MKO 01] In an obituary to the Northern chief, Nopera, the writer makes references to those qualities which constituted his leadership:

> He tangata ahoaho a Nopera, he maia, no te whakatupuranga o nga tangata piri ki te ritenga Māori o mua; na tonu toa. me ana mahi miharo, haunga tona rangatiratanga, ka paingia ia e te iwi, a, ka mana te reo i roto i nga huihuinga o nga iwi. ([Translation in the original] Noble was one of those daring restless spirits of the old Māori school, whose deeds of valour, independently of Chieftainship, entitled them to sway the Councils of the land, and call forth the plaudits of the people.) *The Māori Messenger*, Vol. 2, No. 9, 30 September 1856, p. 12.

Along with other values, these components emphasise the interdependence of the spiritual, cultural and physical environments, the individual, and the social group. Each iwi and hapū has its own variation of the values listed - some will have slightly different ideas as to the values which inform tikanga Māori. Contemporary tikanga Māori development needs to take additional account of tikanga tangata (social organisation), tikanga rangatira (leadership) and tikanga whenua (connections to the land).

In summary, Māori world views and tikanga are potentially important determinants of effective mātauranga Māori and western scientist engagement and dialogue. However, getting a handle on exactly what constitutes a Māori world view and tribal tikanga is difficult for outsiders. This creates particular problems since the development of Māori dialogue and negotiating space, and the responses available to Māori to external opportunities and threats are so strongly influenced by 'outside' forces, such as the government and other stake holders.

iv) Reflexivity and Adaptability of Tikanga a Strength

Tikanga Māori is not static and unchanging. While the principles and values are deeply embedded and enduring, they are always interpreted, differentially weighted and applied in practice in relation to particular contexts, giving ample scope for choice, flexibility and innovation. If anything can be identified as originating in and handed down from the pre-European Māori ancestors unchanged, it is not any particular social form, such as iwi, hapū, or whānau, or particular practices, such as whānaungatanga (inclusion) and kaitiakitanga (stewardship) but the principle of creative adaptation itself. The following references highlight this theme of creative adaptation:

1) Hudson, M, 'The Negotiated Space: Theoretical Basis' (Unpublished Paper, Te Hau Mihi Ata Research Project, University of Waikato, 2008):

> All knowledge is first and foremost local knowledge (Okere et al, 2005). The difference lies in the ways they move and assemble knowledge and in the ways in which people; practices and places become connected and form knowledge spaces (Turnbull 2005). Constructing knowledge is an important feature of maintaining the vitality of a culture

> as (cultural) knowledge must constantly expand and evolve to deal with new environments and situations. As cultural knowledge systems come into contact with each other and interact, the cross-cultural contact creates a stimulus for knowledge exchange and knowledge growth. Knowledge growth has an important role in improving the ability of the knowledge system to create understanding and enhancing the power of the knowledge system to create meaning. As Smith et al write: "The resilience of a cultural knowledge system is dependent on its ability to respond to transformation and change, to adapt and explain new phenomena in a way that retains a sense of resonance and coherence with the existing philosophies and psychologies of their own knowledge system" (Smith et al 2008:1).

2) Law Commission Report, *Waka Umanga: A Proposed Law for Māori Governance Entities* (Report 92, Law Commission, Wellington, 2006) recently noted that:

> The culture of the people is not limited to historic conceptions. A credible [contemporary Māori governance] structure is one that conforms to the peoples' current understanding of themselves as a tribe or general Māori community, of where they have been as a people, of who they are now and where they seek to be.[8]

Constructed to meet the challenges of the present day, a dynamic society will evolve as it encounters other societies and other knowledge systems and there will also be ongoing maintenance of the customary traditional values and their relevance. Da Cunha's observations are germane in this respect:

3) Da Cunha, M.C, 'The Case of Brazilian Indians' in Stephens, S (ed) *Children and the Politics of Culture* (Princeton University Press, Princeton, New Jersey, 1995):

> Culture is production and not a product, we must be attentive in order to not be deceived; what we must guarantee for the future generations is not the preservation of cultural products, but the preservation of the capacity for cultural production.[9]

4) Stokes, E, 'Bicultural Methodology and Consultative Processes in Research: A Discussion Paper' (Department of Geography, University of Waikato, 1998):

The late Dame Evelyn Stokes provides an insightful and useful paper on appropriate methodologies for cross-cultural research. Her paper discusses, inter alia, the dynamic nature of tikanga as follows:

> All cultures change, especially in the face of massive contact and conflicts with alien cultures. Culture is a dynamic concept and culture change is not itself a bad thing. The real issue is the rate and direction of change, and who is directing or imposing change. A basic assumption must be that a distinctive indigenous language and culture labelled Māori will continue to exist in this country because Māori people want to preserve this heritage. It must also be assumed that Māori people want to control the direction and management of their own distinctive cultural identity.

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[8] Law Commission Report, *Waka Umanga: A Proposed Law for Māori Governance Entities* (Report 92, Law Commission, Wellington, 2006) at 69.

[9] Da Cunha, M.C, 'The Case of Brazilian Indians' in Stephens, S (ed) *Children and the Politics of Culture* (Princeton University Press, Princeton, New Jersey, 1995).

Dame Stokes then discussed criticisms of Māori research and 'separatist' and 'special rights' for Māori:

> Neither the source of motivation for the research, nor the cultural framework or methodology in which it is undertaken, is necessarily an impediment or a reflection on the quality of the research. The same high standards of meticulous attention, impartial investigation of all relevant aspects of the topic, clear presentation of issues and conclusions, and so on, apply as much in Māori research as in any other. Perhaps more so because if there is any suggestion of bias in motivation, or inadequate understanding of another cultural framework or methodology, the resulting research is likely to come under even closer scrutiny.[10]

Regarding criticisms of Māori separatism, Stokes noted:

> Separate cultural identity need not be threatening, and should not be, if all cultures are acknowledged as having equal status and all ideas of cultural superiority of one over another are disposed of. The purpose of research should be to identify and make available knowledge of the Māori world, Māori perspectives and perceptions, Māori cultural values and attitudes in areas which are seen as significant in Māori terms. … The more important and urgent function is to direct efforts to investigating ways in which Māori resources – cultural, economic and social – can be used more positively and effectively, to work through institutional barriers, to provide avenues of guidance, set out options, and communicate these in such a way that Māori people themselves can work through the issues that confront and concern them.[11]

5) Durie, Eddie, 'Custom Law: Address to the New Zealand Society for Legal and Social Philosophy' in *Victoria University of Wellington Law Review* (Vol. 24, Wellington, January 1994) at 328-329:

Judge Eddie Durie wrote this seminal piece in 1994, which provided the impetus for the Law Commission to investigate the possibility of incorporating tikanga within the current New Zealand legal system in more appropriate ways. Durie powerfully discusses, inter alia, the concepts, systems and methods of social control within traditional Māori society including cultural adaptability.

> Māori tikanga or law was precise but essentially pragmatic and receptive to change. Major changes were initiated in response to changing circumstances but with consistent adherence to principles of whānaungatanga, other norms and basic values. What was 'tika' was not 'rules' but that which was fair or was likely to succeed and was consistent with broad principles or ideology.[12]

Specific important examples of tikanga Māori adaptation were the development of the amazing post-contact trade and economy of the Māori. Following European contact, Māori tribes appear to have adapted to European trade and business development in a remarkable way while balancing tikanga Māori at the same time as James Belich commented:

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[10] Stokes, E, 'Bicultural Methodology and Consultative Processes in Research: A Discussion Paper' (Department of Geography, University of Waikato, 1998) at 48-49.
[11] Ibid at 49.
[12] Durie, Eddie, 'Custom Law: Address to the New Zealand Society for Legal and Social Philosophy' in *Victoria University of Wellington Law Review* (Vol. 24, Wellington, January 1994) at 105.

> Māori did not passively receive Europe, but actively engaged with it. They chose, adjusted and repackaged the new, in many respects into a less culturally damaging form. They did so with courage and perceptiveness.[13]

Referring to early Māori business development, Michael King concluded:

> Māori were capable and competitive entrepreneurs, who could grow, produce and harvest commodities such as flax and timber on a large scale. In this context, the co-operative structure of internal tribal organisation and the system of mutual obligation implied by the custom of utu were distinct assets.[14]

Māori culture was open to innovation and Māori were keen to engage in business and trade from early contact with Europeans. Both before and immediately following the Treaty of Waitangi 1840, Māori engaged in significant entrepreneurial activity. Māori were active traders in fish, agricultural produce and pigs, and they owned and operated flour mills and trading vessels that sailed frequently to Australia.[15] In 1800, John Savage noted that Māori at the Bay of Islands were cultivating potatoes to trade with the whalers. In Foveaux Strait in 1840, Ngäi Tahu tribes were also cultivating potatoes for trade. The various hapū in these and other regions also began collecting and preparing flax and cutting trees for masts and spars so they could buy the trade goods from industrialised Great Britain.

Under the instructions of the missionaries, Māori grew quantities of wheat which they learned to grind into flour. Many tribes owned and operated flour mills. At Kerikeri, Taiwhanga, the first convert to Christianity, had a garden which by 1826 was producing potatoes, corn, cucumbers, pumpkins, melons, onions, shallots, peas and parsnips. Taiwhanga had vines, peach trees and an acre of wheat. Later he developed a dairy farm and by the end of 1835, Taiwhanga was making butter which he sold for prices ranging from a shilling to two shillings and sixpence a pound, thus becoming New Zealand's first commercial dairy farmer.[16]

Agricultural produce from Māori gardens and farms were even exported to the Californian and Victorian goldfields. In Auckland trade kept the business alive with as many as 40 waka taua (war boats) from outlying areas bringing supplies to the Auckland market. Swainson provided a vivid eye witness in the early 1850:

6) Swainson, W, *Auckland, the Capital of New Zealand and the Country Adjacent* (Smith, Elder, London, 1853):

> The neighbourhood of their camping ground presents the appearance of a fair: pigs and potatoes, wheat, maize, melons, grapes, pumpkins, onions, flax, turkeys, geese, ducks, fowls, and firewood are exposed for sale in great abundance, and meet with a ready market. But the money they receive in payment does not leave the town: for several days the shops and stores are frequented by careful, curious, keen-eyed customers.

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[13] Belich, J, *Making People: A History of New Zealanders: From Polynesian Settlement to the End of the Nineteenth Century* (Penguin Press, Auckland, 1996) at 154.

[14] King, M, *The Penguin History of New Zealand* (Penguin Books, Auckland, 2003) at 127.

[15] See Waitangi Tribunal, *Muriwhenua Report*, (Government Printing Office, Wellington, 1988) at 44-66 and Merrill, R, 'Some Social and Cultural Influences on Economic Growth: A Case Study of the Māori' in *Journal of Economic History* (Vol. 14, 1954) at 401-408.

[16] Stenson, M and Olssen, E, *A Century of Change: New Zealand 1800-1900* (2nd Ed., Addison Wesley Longmann New Zealand Ltd, Auckland, 1997) at 116-117.

> Their 'shopping' ended, they take their departure with the first fair wind, laden with spades, blankets, ironware and clothing of various kinds; their fleet departing, homeward bound, in a body as it came, the canoes extending over the surface of the harbour, with their many shaped sails of mat and canvass widespread to catch the western breeze.[17]

7) Schaniel, W 'European Technology and the New Zealand Māori Economy' in *The Social Science Journal* (Vol. 38, 2001) at 137–146.

> Schaniel provided an interesting analysis of the post-contact impact of European technology on the Māori economy noting that the introduction of European technology prior to the Treaty of Waitangi did not result in a collapse of Māori culture as some espoused. New technologies were adopted in the context of their traditional values.[18] Iron tools, white potatoes, agricultural technology and firearms were all integrated into Māori livelihood and resulted in a change in Māori society and economy, but Māori adapted these to their traditional social processes.[19] Historians have assumed that the introduction of new European technology to indigenous societies usually caused catastrophic changes in social process, livelihood, culture and identity. [20]
>
> New technologies did lead to profound disturbances in the economic and political order but not all of these disturbances were malign. Schaniel argued that Māori adopted, adapted and then applied European technology to their traditional processes.[21] European missionaries consistently attempted to teach Māori tribes English farming techniques but Māori continued to use traditional techniques in the cultivation of introduced vegetables and fruit, illustrating to some extent the continued vitality of traditional Māori values. Māori also adopted few European agricultural implements and those that were adopted were adapted to Māori concepts of appropriate techniques.[22]

As in the past, Māori have survived dramatic changes of colonisation, urbanisation and now globalisation (including biotechnology), individually and collectively, by deploying their capacity for adaptation, on the one hand modifying traditional forms to serve new functions and on the other creatively adapting introduced forms to their own ends, transforming both in the process.

v) Impact of Science on Māori Values

1) Hui Taumata Action Taskforce 2005, 'Creativity and Mātauranga Māori: Towards Tools for Innovation' (Hui Taumata Action Plan, www.huitaumata.Māori.nz):

> The post-Hui Taumata in 2005 set out a number of important key areas identified for Māori development:

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[17] Swainson, W, *Auckland, the Capital of New Zealand and the Country Adjacent* (Smith, Elder, London, 1853) at 33-34.
[18] Schaniel, W 'European Technology and the New Zealand Māori Economy' in *The Social Science Journal* (Vol. 38, 2001) at 137–146.
[19] Ibid, at 137.
[20] Cumberland, K 'A Land Despoiled: New Zealand About 1838' in *New Zealand Geographer* (Vol. 6, 1960) at 33–34.
[21] Schaniel, W 'European Technology and the New Zealand Māori Economy' in *The Social Science Journal* (Vol. 38, 2001) at 138.
[22] Ibid, at 141.

- He Tangata, He Tangata – skill development and building Māori capability;
- He Ao Tupu Rawa – building an enterprise culture;
- He Pae Tawhiti – providing high quality strategic information;
- He Tira Paraoa – creating excellence in leadership and governance;
- Tapui hei Whakatupu – increasing the utilisation and development of our collectively owned assets; and
- Mātauranga Māori – using our indigeneity as a point of difference and a source of creativity and innovation.

The Hui Taumata Taskforce has taken on as its mission 'enhancing the lives of Māori through economic prosperity by accelerating Māori–led economic development.'[23] Mātauranga Māori provides opportunities for economic growth. There is a need to explore the potential and distinctive dimensions of the economy that might arise from the Māori world and to utilise aspects of mātauranga Māori. Distinct opportunities that might arise or be inspired by aspects of mātauranga Māori include:
Products – such as cuisine, perfume, fabrics, building materials and more;
Services – such as tourism experiences, food and service industry initiatives;
Processes – such as education activities, and creative and research methodologies; and
Systems – such as models of organising, decision making and action taking.

2) Hutchings, J & Reynolds, P, 'The Obfuscation of Tikanga Māori in the GM Debate' (Unpublished Paper, in author's possession, no date):

Hutchings and Reynolds present a counter-hegemonic response to the 'selected' use of Māori experts' perspectives on the GM debate which is allowing tikanga Māori to be redefined and reinterpreted to provide an acceptable analysis of this technology to legitimise the work of research, universities and government agencies thus supporting western science discourses. The paper discusses the consultation process of GM to Māori as well as provides a summation of diverse Māori concerns with regard to GM demonstrating the diversity of the Māori views opposing the GM debate. The paper cites an example of manipulating tikanga Māori to suit partisan ends vis-à-vis the GM debate:

> There are some stories and customary examples of mixing human tapu [sacred] and organs with other species. The stories of the ancients are filled with examples of men and gods transforming themselves into other life forms. Maui … turns himself into a kereru (native pigeon) to secretly follow his mother into the underworld. Wairaka … calls on the gods to metaphorically turn her into a man to avoid and appease the tapu involved in her sailing a waka [canoe] to safety. The customary ceremonies involved in eating the vital organs of a vanquished foe symbolise the victor taking the abilities of his enemy into his own physical body. In each of these examples, there is no significant and prohibitive norm that results in the actors being somehow culturally inappropriate.[24]

[23] See the Taumata website at www.huitaumata.Māori.nz (last accessed March 2008).
[24] New Zealand pro-biotechnology lobby groups, the Life Sciences Network (Inc), Paora Ammunson and Tamati Cairns, submission to the Royal Commission on Genetic Modification, sB(g), s2, s23. See the website: http://www.gmcommission.govt.nz/pronto_pdf/nzlsn_wb_ip0024paora_ammunson.pdf.

Hutchings and Reynolds conclude that although there has been a strong and consistent expression of concern by Māori about biotechnology and genetic engineering, there is little room to say no to the research. Dissent is managed and domesticated by various processes such as co-option of Māori people, government promotion of more dialogue and education of Māori communities, increasing funding and resources to regulatory bodies and the obfuscation of tikanga Māori knowledge. Western science takes precedence over any resistance to new technologies.

3) Durie, M, 'Understanding Health and Illness: Research at the Interface Between Science and Indigenous Knowledge' in *International Journal of Epidemiology* (Vol. 33, No. 5, 2004) at 1138-1143:

Durie provides some interesting context for research at the interface of science and Indigenous knowledge noting the contradictions at the interface that both western scientists and many Māori people experience on a daily basis and the creative potential that exists within the interface:

> Contests about the relative validity of science or indigenous knowledge are usually conducted on the assumption that one is inherently more relevant than the other. Hardly ever does such a polarized debate generate wisdom and seldom does it lead to the generation of new knowledge or fresh insights. Instead positions become more entrenched as proponents defend their ideological positions.
>
> In practice, however, it is not unusual for scientists or indigenous peoples to live comfortably with the contradictions of different bodies of knowledge. Many scientists subscribe to religious beliefs that cannot be explained by science, and many indigenous people use scientific principles and methods in everyday life while at the same time holding fast to indigenous values.
>
> Rather than contesting relative validities, there are an increasing number of indigenous researchers who use the interface between science and indigenous knowledge as a source of inventiveness. They have access to both systems and use the insights and methods of one to enhance the other. In this approach, the focus shifts from proving the superiority of one system over another to identifying opportunities for combining both.

4) Mead, Hirini Moko, *Tikanga Māori: Living by Māori Values* (Huia Publishers, Wellington, 2003):

> Professor Mead provides an overview of the underpinning values of Māori society as well as approaches to dealing with 21st century Māori society and its challenges. Professor Mead discusses mātauranga Māori: knowledge; extensions of tikanga Māori and Nga ahi e ngiha mai nei: the fires that flare up. In the latter chapter, Professor Mead mentions how Māori need to deal with issues that have not been addressed or discussed seriously which will eventually affect Māori such as genetic engineering, genetic modification, in-vitro fertilisation, organ transplants and surrogate motherhood, to site some examples. Māori need to identify a 'Māori' position on these and other issues and in attempting to discover a position, Professor Mead notes that Māori have

to engage with tikanga Māori and its knowledge base – mātauranga Māori. Professor Mead then provides five tests to apply to new contemporary issues for Māori in the 21st century that include:

- The tapu aspect;
- The mauri aspect;
- The take-utu-ea or TUE test (refer to Appendix 2 for the TUE test);
- The precedent aspect; and
- The principles aspect.

Under the principles aspect, Professor Mead mentions a number of sub-tests including:

- Whanaungatanga;
- Manaakitanga;
- Mana;
- Noa; and
- Tika.[25]

In many cases, Māori do not know how to deal with new contemporary issues and how to frame a position, while others insist there must be a tikanga Māori position. Professor Mead suggests the above five tests to assist with developing and justifying a tikanga framework for what may be called a Māori position on current contentious issues such as biotechnology. Old ideas and challenges can also be subjected to these same tests to find some answers. Professor Mead warned however that the discussion be firmly based on mātauranga Māori, on Māori traditions and customs and the principles of tikanga Māori. After adopting the above tests, Mead asserts that it should be possible to decide whether it is right to adopt the new technology or the idea of genetic modification or organ transplants. In some cases the issues however, are so complex that these tests might not help at all. Mead asserts that Māori might have to be more accepting of news ways of improving life chances. Some decision making processes generate much soul searching, many discussions and result in a greater understanding of tikanga Māori.

5) Tau, R., Te Maire, *Nga Pikituroa o Ngāi Tahu: The Oral Traditions of Ngāi Tahu* (University of Otago Press, 2003):

Te Maire Tau provides some interesting korero about knowledge, tikanga, whakapapa and the role and purpose of oral traditions, which provides more contexts for mātauranga Māori and the Māori worldview.

Refer to Appendix 3 for a discussion on whakapapa.

[25] Mead, Hirini Moko, *Tikanga Mäori: Living by Mäori Values* (Huia Publishers, Wellington, 2003) at 335-351.

vi) Māori and Biotechnology

1) Roberts, M & Fairweather, *South Island Māori Perceptions of Biotechnology* (Research Report No. 268, Lincoln University, Christchurch, September 2004):

In this study of biotechnology, 22 interviews and focus groups were conducted around Te Wai Pounamu involving a total of 91 peoples regarding biotechnologies and their applications. Key themes identified and collated were:

In terms of perceptions of the risks associated with biotechnology, participant's emphasised:

- The negative effects on human health and the environment;
- That biotechnologies are 'not right' or not tika;
- Negative effects on whakapapa, wairua and mauri;
- New technologies especially GMOs are merely 'quick fixes', a fad.

The underlying causal factors that contribute to the perceptions of risk included:

- Lack of knowledge and information on which to make an informed decision;
- Distrust of science and scientists;
- Fear of uncertainty and longer term adverse effects;
- Perceptions of 'natural' versus 'unnatural;'
- Perceptions of what is 'right' versus 'wrong';
- Influence of the media; and
- Concerns for animals.

In terms of policy there is a need for:

- More information;
- Clarification of purpose and benefits;
- Identification of 'boundaries' or 'no go' areas of research;
- More emphasis on alternatives;
- More involvement in and control over the technology and the decision-making processes; and
- Development of culturally appropriate risk assessment guidelines and frameworks.

2) Roberts, M, Haami, B, Benton, R, Satterfield, T, Finucane, L, Henare, M, and Henare, M, 'Whakapapa as a Māori Mental Construct: Some Implications for the Debate over Genetic Modification of Organisms' in *The Contemporary Pacific* (Vol. 16, No. 1, Spring 2004) at 1-28.

The authors of this article provide an elaborate exploration of the concept of 'whakapapa' utilising the whakapapa origins of the kumara (sweet potato) as a case study. The authors believe the primary lesson learnt from the exploration of origins of the whakapapa of the kumara is that risk-taking can be beneficial. This situation occurs when younger people outsmart older people and when a 'trickster/hero' (Maui-like figure) takes dangerous risks on behalf of his/her people so that they may have access to new knowledge and technology. The paper states:

> One might therefore conclude from these stories that normally prohibited actions are justifiable if the cause or purpose is correct (tika) or worthy and the potential benefits appear to outweigh the risks … sometimes it is only through deliberately flouting culturally embedded norms that important and beneficial changes to society are brought about. (p. 22).

Māori ancestors were risk-takers and the question to ask is whether it is appropriate to take risks in the form of biotechnology and research for the greater good of humankind, perhaps at the infringement of tikanga Māori.

3) Cheung, Melanie, 'Tikanga in the Laboratory: Engaging Safe Practice' (Conference Address, Nga Pae o Te Māramatanga PhD Students Conference, Orakei, October 2006):

> Cheung investigates how human brain mitochondria are involved in the development of Huntington's disease which causes loss of brain cells eventually leading to death. Cheung discusses the scientific methods used and processes put into place for these processes to be culturally appropriate. Cheung is involved in several 'cutting edge' methods including growing cells from post-mortem and post-operative brain tissue, and the use of post-mortem brain tissue for molecular techniques. Consequently, Cheung notes that she is compelled to examine the cultural, ethical and spiritual implications of being Māori, working with human tissue and exploring appropriate tikanga use in the laboratory.
>
> Given that the head is the centre of a person's tapu, working with brain cells appears to immediately be a tapu activity. Cheung mentions how she goes through a whakanoa process (using karakia, waiata and wai) before and after work; she has consulted with whanau and kaumatua about her work and built a relationship with a Māori whanau who bequeathed their father's roro (although he was Pakeha) for this research.

Refer to Appendix 4 for detail on Cheung's use of tikanga in the lab.

vii) Māori and Genetic Engineering

1) Cram, F, Pihama, L & Barbara, G.P, *Māori and Genetic Engineering: Research Report* (IRI (International Research Institute for Māori and Indigenous Education), University of Auckland, May 2000):

> This report examines the issue of genetic engineering (GE) across three broad and inter-related areas:
>
> - Food, including food production and the issue of labelling of food;
> - Human health, including genetic testing and genetic solutions to health issues; and
> - Biological diversity, including issues related to indigenous flora and fauna.
>
> The report noted at least three key Māori concepts as being relevant to the discussion of GE:

- All elements of the natural world and divine worlds, including humans and genetic material, are related and are linked by the possession of mauri – the life force;
- It is the responsibility of the present generation, as kaitiaki, to protect the mauri of genetic material from defilement or abuse; and
- Genetic manipulation may be seen to interfere with the integrity of species and, therefore, may interfere with the mauri of the affected species.

2) Mead, Aroha Te Pareake, 'Human Genetic Research and Whakapapa' in Te Whaiti, Pania, McCarthy, Marie & Durie, Arohia (Eds), *Mai i Rangiātea: Māori Wellbeing and Development*, (Auckland University Press, Bridget William Books, Auckland, 1997) at 126-141.

> This book generally provides some Māori perceptions of healthy growth and development. Western concepts of human development have oversimplified the process by emphasising individuality as the core and then generalising to the whole. Māori acknowledgement of the interdependency between the individual and the group such as whānau gives some basis for alternative discourses. Aroha Mead discusses the importance of Māori collectively rather than individually dealing with the issues around genetic research and whakapapa. Mead identifies a range of cultural and ethical issues that should be addressed by those active in promoting human genetic research, diagnosis and treatment. Within a context of Māori well-being, Mead contributes to a more in-depth consideration of appropriate technologies vis-à-vis genetic research and whakapapa.
>
> Aroha Mead commences with a discussion on the different purposes for human genetic research which, although benign in some respects (such as social scientific studies of people and forensic science), generally this type of research is carried out within a profit making framework by pharmaceutical companies and the wider biotechnology industry. Associated issues that emerge include potential for discrimination against 'studied' peoples for health insurance with predispositions for certain diseases for example, breaches of medical confidentiality, intellectual property, and the lack of appropriate ethics and protocols governing this area. Mead concludes that notwithstanding the pressures to proceed apace with genetic research, which may even benefit Māori suffering from disabling medical conditions, Māori should not be co-opted into genetic research. A key concern is who benefits from the research? If genetic research cannot address critical issues such as self-esteem, drug and alcohol abuse, domestic violence and racism, then it is simply another tool of colonisation exploiting the resources of Indigenous Peoples for commercial gain.

Refer to Appendix 5 for more detail.

3) Hohepa Kereopa, the Ngāi Tuhoe tohunga discusses the area of genetic engineering in an interesting manner in 'Genetic Engineering' in Moon, P, *Tohunga Hohepa Kereopa* (David Ling Publishing, Auckland, 2003) at 124-125. Kereopa notes:

> As far as genetic engineering is concerned, I don't have a problem with it. … Some people say that because everything has its own wairua, if you mix them artificially, you are creating something you don't really know about, and you are damaging the wairua of those things. But I've always believed that if people are going

to do genetic engineering, there are ways we will know if things are proper or not. Because each species, each plant and animal, is its own separate universe. So if two species are genetically engineered, and the experiment doesn't work out, it means that they have tried to put the wrong universe together. So some of those experiments I have heard about, they went well for a while, but then I found out that some of the animals developed all kinds of sicknesses, so that tells me that the wrong universes were combined. In other words, because everything does have its own wairua, it can protect itself from the wrong sort of genetic engineering, and will only work when the right universe comes along. So for me, I have no objection to genetic engineering.

4) Hudson, M, Ahuriri-Driscoll, A, Lea, M & Lea, R, 'Whakapapa – A Foundation for Genetic Research?' in *Bioethical Inquiry* (Vol. 4, 2007) at 43-49.

This article discusses whakapapa as a foundation of traditional Māori social structure and it perpetuates a value base that locates people through their relationships to the physical and spiritual worlds. As part of a new envirogenomics research programme, researchers at the Institute of Environmental Science and Research (ESR) are developing a study with the iwi Ngāti Rakaipaaka in Nuhaka, Hawkes Bay, to identify combinations of genetic and environmental factors that may contribute to current health status. A major objective of this study is to utilise whakapapa to explore patterns of genetic variation unique to the iwi and to correlate these with potential disease or ill health status. Genetic testing and screening raises numerous ethical issues, particularly when Indigenous Peoples are the subjects. Culture, ethics and politics all play a part in determining the Māori response to genetic studies. A Māori participant in genetic research is considerably more than the genetic material they submit for investigation because an individual is inextricably linked to their whanau, hapu, iwi and te Ao Māori through whakapapa which is the basis of cultural traditions, understandings and ways of knowing. Hence locating outcomes of genetic research within the 'bigger picture' is central to maintaining the integrity of te Ao Māori, in the midst of new and emerging biotechnologies.

The paper addresses indigenous concerns about genetic testing and how whakapapa forms an integral part of the envirogenomics research programme, and how ESR is seeking to engage iwi in a dialogical process about the potential benefits of genetic screening research, with a view to exercising caution in applying scientific possibilities to Māori realities. Māori can and should benefit from genetic research but how and whether this is the case should be a key consideration in any that is undertaken which requires honest cultural critique, reflection and reflexivity, both externally of, and internally within, the respective Māori community.

5) Hingston, Erina, *Te Maramatanga o Te Tipuranga: An Update of Forest Research's Field Trial of Genetically Engineered Trees* (Forest Research, Rotorua, 2004):

This booklet discusses Forest Research's field trial of GM trees planted within the rohe of the three hapū in the Rotorua area – Ngäti Hurangaterangi, Ngäti Te Kahu and Ngäti Taeotu o Whakaue. The main focus of the booklet is to inform hapū and iwi of Forest Research's work on the results of the field trial of genetically modified Pine and Spruce trees. The research was monitored by mandated representatives from local tangata whenua. The field trial was designed to answer questions about the interaction

between genetically modified trees and the environment allowing scientists to study potential risks and to understand how genes are expressed in the living trees. The trial is part of a long-term kaupapa aimed at improving the value of trees to forest growers.

With permission from the environment Risk Management Authority (ERMA) and a blessing from local kaumatua, Forest Research planted Radiata Pine and Norway Spruce trees, which have been genetically modified with genes known as 'reporter genes.' These introduced genes produce special signals that allow their behaviour to be traced by scientists as the trees grow.

Naturally, biotechnologies are associated with risk and Forest Research has developed contingency plans to deal with emergencies related to the field trial designed to avoid any biological threat, particularly with regard to concerns about the environmental impact. The booklet held that the genetically engineered trees adapted well to the field conditions and were growing just like non-GM trees planted in the trial; the reported genes are behaving as expected and can be measured through specific tests; and the research is still being conducted on the possibility of any gene transfer from the GM trees into bacteria in the soil.

viii) Socially and Culturally Sustainable Biotechnology

1) Te Momo, Fiona, *Socially and Culturally Sustainable Biotechnology in Aotearoa/New Zealand: A Report on the Social, Cultural, Religious, and Spiritual Dimensions of Biotechnology for Māori* (Report prepared for Professor Judy Morton, Massey University, Auckland, no date):

Te Momo's paper provides a brief description on the research of Māori knowledge explaining social, cultural, religious and spiritual dimensions that exist in Te Ao Māori vis-à-vis biotechnology. Te Momo notes that dialogue with Māori on issues pertaining to biotechnology, genetic engineering and genetic modification is mainly driven by the agenda of government by fulfilling Treaty of Waitangi obligations and adhering to legislative requirements under the Resource Management Act 1991; or the business sector working with communities that may be affected by scientific research.

A lack of knowledge for Māori generally appears to have contributed to Māori refraining from supporting biotechnology. Māori do not totally reject biotechnology, they often oppose developments in the area until they are informed and assured that the benefits of biotechnology outweighed the risks.

Te Momo noted that when approaching Māori communities to inform and work with Māori more appropriately, include the Māori language, pitch the issues to a lay person's understanding, be prepared for criticism and to work through broad issues, provide refreshments and time for feedback, resource the research properly, modify the research approach to be flexible, accept feedback without influencing dialogue; and keep the topics brief and broad. Non-Māori need to understand the Māori position(s) regarding sustainability of social, cultural, religious and spiritual dimensions of biotechnology for Māori.

Te Momo notes that the controversy is not so much about the science of biotechnology as it is about the moral significance with what to some people represents the very essence of humanity, our genetic material. Many Māori took positions that were reflective of tikanga Māori and survival and questioned whether advancements made from scientists in biotechnology would hinder the future wellbeing of Māori.

Any research that affected a healthy lifestyle was considered a threat but the question is whether the research helps or hinders or perhaps does a bit of both.

Many considered the crossing of human and animal genes to be unnatural to the basic order of life. Te Momo notes that Māori generally reject experimentation that involves cloning or transgenic human to animal or human to plant experimentation. The report did note however, that some Māori supported biotechnology when social and economic benefits were mooted from the business sector as a pathway to enhance the lifestyles of people. Some biotechnology benefits were mentioned such as the production of insulin to treat diabetes and cow's milk containing a synthetic protein for the treatment if multiple sclerosis. This stance was apparently supported by Māori scientists and health professionals.

The report additionally notes the depth of knowledge Māori have to explain social, cultural, religious and spiritual dimensions vis-à-vis biotechnology as being a vast and complex reservoir and there is a need to collate this knowledge and (it was implied) to disseminate it to the local and international community. Te Momo also discusses the problem of the inappropriate control over information dissemination and implementation which rests largely with government. Decisions to approve or reject advancements for Māori depended on the value government and scientists placed on Māori cultural, religious and spiritual beliefs.

ix) Collaborative Research

1) Harmsworth, G, *A Collaborative Research Model for Working With Iwi* (Landcare Research, Palmerston North, July 2001):

Harmsworth helps to develop an effective collaborative research model outlining some of the key ingredients of successful collaborative research with iwi. Harmsworth concludes that collaborative research needs to be founded on a solid relationship that is not taken for granted and is maintained by ongoing dialogue, communication, reciprocal visits and networking. The proposal and the thinking that goes into it often take years rather than months to develop. A number of models can be used to develop future collaborative research and all involve relationship building, participatory research and collaborative learning. Although not an exhaustive and definitive report, some of the key findings are:

- Research proposals and collaborative research can only happen once a meaningful relationship is established;
- Credible relationships take a long time to build, but are critical to successful collaborative research;
- A very clear understanding of future relationships needs to be articulated at an early planning stage and may follow certain protocols;
- Research and project management capability, and human capacity, are pre-requisites for starting collaborative research projects;
- Building human capacity and developing collaborative research go hand in hand;
- Developing collaborative research with iwi and hapu requires adequate resources;
- Characterising important Māori issues at a national level will help identify collaborative research opportunities;

- Collaborative projects with iwi need to be evaluated using a wider set of criteria than just research or science outcomes.

Refer to Appendix 6 for more detail on Harmsworth's collaborative model.

x) Cross Cultural Dialogue

1) Wilcox, P, Charity, J, Moke-Delaney, P, Roberts, M, Tauwhare, S, Tipene-Matua, B, Kereama-Royal, I, Hunter, R, *A Values-Base Framework for Cross Cultural Dialogue Between Scientists and Māori* (Cellwall Biotechnology Centre, Scion Te Papa Tipu Innovation Park, Rotorua, Te Aroturuki –Māori Advisory Group for CBC , School of Business Management, University of Waikato, Te Whare Wananga o Awanuiārangi, Industrial Research Ltd, Wellington, Christchurch Polytechnic Institute of Technology, Pakihi Partners Limited, Wellington, Marlborough Research Centre, Blenheim, no date).

Cross-cultural dialogue is an essential part of the evaluation of controversial technologies and research proposals of significance to Indigenous Peoples. If Māori in Aotearoa/New Zealand are to benefit from these technologies it is important that effective processes are developed and implemented to ensure enduring outcomes for their communities.The authors of this report provide a good analysis of a deliberate, multi-staged process to facilitate cross-cultural dialogue that starts well before research applications are submitted to funding and/or regulatory agencies.

Development of this model was originally motivated because there has been a lack of effective processes to ensure that Māori perspectives are incorporated into GM research programmes in a manner that ensured positive outcomes for Māori. This model was designed to be applied at the proposal development stage, and to incorporate Māori perspectives well prior to lodging applications with Environment Risk Management Authority of New Zealand or funding agencies. Such a model is necessary given the importance of Māori contribution to New Zealand society and economy. The process provides a framework for capturing future opportunities for research providers.

The process begins with provision of 'toolkits' to both the research provider and the Māori entities, which allows both to be better prepared to engage in constructive dialogue with each other concerning the proposal and its intended outcomes. The process allows for the evaluation of technologies and modification of research proposals by Māori to achieve mutually beneficial outcomes. It also recognises non-Māori scientists are often willing to participate but may feel apprehensive because of unfamiliarity with the language, protocols and values. The model suggests the use of a Māori intermediary/ies to assist scientists with re-evaluation of their proposals prior to the actual dialogue phase, and facilitate the interaction between the dialogue partners. The model accommodates a range of possible outcomes from the dialogue phase, and subsequent monitoring of outcomes from the research by both parties. While it may seem onerous to scientists to have to take the time to inform oneself about another culture, the report states that there is no substitute for informed dialogue.

Furthermore, for scientists wishing to work with Māori on a frequent basis, being informed of Māori perspectives should be perpetually beneficial. The future may envision scientists confidently engaging with Māori and drawing inspiration and fulfillment from delivering science-derived benefits to diverse communities. In

addition, scientists will not be deterred by cultural barriers, but will take the time to listen to, learn from, and connect with tangata whenua. Similarly, science organisations of the future could be those that have established robust, time-tested relationships with Māori based on mutual respect and reciprocal beneficial agreements, projects and initiatives. Within such organisations, dialogue with Māori around controversial technologies will have developed to the point where engagement and involvement is operationally routine.

For Māori, the process still respects the need to allow hapu/iwi the time to ask questions and raise concerns with due care that allows enough time for thorough airing of the issues. There are also potential strategic benefits, for example, direct joint venture partnerships. Further benefits include up skilling of Māori in science which will increase the knowledge base of hapu and iwi. Another important potential outcome for Māori includes aversion of previous negative experiences of working with scientists where communication has been one-way, and consultation processes had predetermined outcomes which have eroded trust amongst some Māori. Reasons for such mistrust include the undermining of indigenous status, plagiarism of indigenous knowledge by western researchers and a limited methodology which only allows for limited outcomes.

Although the model discussed in the report has been developed specifically for controversial technologies, it could be adapted for other purposes. For example, it could be used by non-Māori businesses considering implementing technologies which may impact Māori communities. Parts of the process could also be adapted to incorporate perspectives of other strategically important groups whose world views differ from the majority. Furthermore, parts of the process could be used for non-controversial research that are of interest to Māori. However, the model's applicability in these instances may be limited by the time in which it takes to implement. Still, some of the information in the toolkits may be useful to either party.

The model does not supplant the need for a positive relationship between research providers and mana whenua hapu. For Māori, the nature of this relationship reflects research providers' commitment to the acknowledgement of Māori values by recognising the importance of mana whenua status. Positive outcomes from the model for other hapu and iwi are more likely, if this relationship is strong. It is anticipated that adoption of this values-based model by scientists and scientific organisations will result in the transformation of science praxis, the creation of long-term relationships between scientists and Māori, and mutually beneficial outcomes for both.

Refer to Appendix 7 for a copy of the whole report.

2) Tipene-Matua, Bevan, *Having honest conversations about the impact of new technologies on indigenous people's knowledge and values* (Conference Paper, Mātauranga Taketake, Traditional knowledge Conference, 2006):

Tipene-Matua discusses the need for robust research tools and methodologies to ensure the protection of Indigenous Peoples' knowledge and perspectives particularly as new technologies develop such as genetic technologies and the impact of western science on indigenous knowledge, values and practices continue to challenge Indigenous Peoples to respond to a science motivated by corporate non-indigenous imperatives. The debate becomes more complex when Indigenous Peoples are asked to weigh cultural or spiritual concerns against the potential for individual health benefits or to weigh individual rights to make choices against some fundamental tenets of tribal

societies such as collective responsibility, collective decision-making, and collective well-being. Consequently, it is essential for Indigenous educators and researchers to develop ways of having honest and frank conversations with each other about sometimes highly politically laden and problematic issues confronting them like biotechnology.

Tipene-Matua refers to the constructive conversations research project and the need for better information about cultural, social, spiritual and ethical elements of new health biotechnologies and the need to find new ways of engaging people in dialogue. The paper argues that Indigenous Peoples, particularly Māori, must be vigilant in reclaiming and redefining their cultural values, practices and ways of being, if they are to effectively respond and benefit from new technologies. The paper proposes a principles approach to establishing effective frameworks and protocols for honest discussions about the spiritual and cultural issues raised by such technologies.

Refer to Appendix 8 for more detail on the process.

3) Metge, Joan, *Korero Tahi: Talking Together* (Auckland University Press, with Te Mätähauariki Institute, 2001).

This book draws on the rich resource of tikanga korero to develop a procedure for managing group discussion in settings where groups (Māori and non-Māori) meet to talk about common concerns such as biotechnology. This book aims to create an environment, which is comfortable, safe and empowering to all participants in a discussion where all are accorded equal dignity and respect. The strategies highlighted by Metge can be used in many contexts such as workshops, conferences and discussions.

4) Smith, Linda Tuhiwai, *Decolonizing Methodologies: Research and Indigenous Peoples* (Zed Books, London, University of Otago Press, 1999):

Dr Linda Smith's book is a seminal piece on inter alia, research methodologies. The book is a counter-story to Western ideas about the benefits of the pursuit of knowledge. Looking through the eyes of the colonised, cautionary tales are told from an Indigenous perspective, tales designed not just to voice the voiceless but to prevent the dying – of people, of culture, of ecosystems. The book is particularly strong in situating the development of counter-practices of research within both Western critiques of Western knowledge and global Indigenous movements. Informed by critical and feminist evaluations of positivism, Dr Smith urges researching back and disrupting the rules of the research game towards practices that are more respectful, ethical, sympathetic and useful, versus racist practices and attitudes, ethnocentric assumptions and exploitative research. Using Kaupapa Māori, a fledgling approach towards culturally appropriate research protocols and methodologies, the book is designed primarily to develop Indigenous Peoples as researchers. Dr Smith begins to articulate research practices that arise out of the specificities of epistemology and methodology rooted in survival struggles, a kind of research that is something other than a dirty word to those on the suffering side of history.

Dr Smith's work encourages Indigenous Peoples to undertake research that uses methods that are culturally sensitive and appropriate instead of those which assume that research and research methods are culture free and that researchers occupy some kind

of moral high ground from which they observe their subjects and make judgments about them. The second part of the book on different more appropriate approaches and methodologies for Indigenous Peoples, ought not to be read as a 'how to' manual but as a series of accounts and guidelines that map out a wide range of research-related issues. Significant spaces have been opened up within the academy and within some disciplines to talk more creatively about research with particular groups and communities – women, the economically oppressed, ethnic minorities and Indigenous Peoples. These discussions have been informed as much by the politics of groups outside the academy as by engagement with the problems that research with real, living, breathing, thinking people actually involves. Communities and Indigenous activists have openly challenged the research community about such things as racist practices and attitudes, ethnocentric assumptions and exploitative research, sounding warning bells that research can no longer be conducted with Indigenous communities as if their views did not count or their lives did not matter.

Dr Smith notes that Indigenous methodologies tend to approach cultural protocols, values and behaviours as an integral part of methodology. They are 'factors' to be built in to research explicitly, to be thought about reflexively, to be declared openly as part of the research design, to be discussed as part of the final results of a study, and to be disseminated back to the people in culturally appropriate ways and in a language that can be understood which is simply part of an ethical and respectful approach. There are diverse ways of disseminating knowledge and of ensuring that research reaches the people who have helped make it. Two important ways not always addressed by scientific research are to do with 'reporting back' to the people and 'sharing knowledge.' Both ways assume a principle of reciprocity and feedback.

In New Zealand, work is being carried out in terms of bicultural, partnership and multi-disciplinary research. Others have developed ways of working with Indigenous Peoples on a variety of projects in an ongoing and mutually beneficial way, which is the heart of the Te Hau Mihi Ata research project – to explore ways to link mātauranga Māori and western science. Dr Smith's work is of invaluable assistance in this and many other areas with developing new inter-cultural dialogue processes between two world views and cultural epistemologies.

5) Denzin, N, Lincoln, Y and Smith, L, (Eds.) *Handbook of Critical Indigenous Methodologies* (SAGE Publications Inc., California, 2008):

This handbook makes connections regarding many of the perspectives of the new critical theorists and emerging Indigenous methodologies. The handbook extends beyond the investigation of qualitative inquiry itself to explore the Indigenous and non-Indigenous voices that inform research, policy, politics and social justice. The authors explore in depth some of the newer formulations of critical theories and many Indigenous perspectives and they seek to make transparent the linkages between the two. The handbook is an authoritative resource for researchers, scholars, and students in education, sociology, psychology, area studies, Native American studies, post-colonial studies, and women's studies.

xi) Constructive Conversations

1) Du Plessis, R, 'Democracy, participation and 'scientific citizenship': New Zealand Initiatives' (Paper presented to the Policy and Politics International Conference on 'Policy and Politics in a Globalising World', Bristol, 24-26 July 2003):

> Du Plessis reflects on the initiatives of the Royal Commission on Genetic Modification (2000-2001) as a major exercise in 'scientific citizenship' in New Zealand, followed by the general election in which state regulation of genetic modification and new biotechnologies were significant issues. Du Plessis analyses the challenges confronting those experimenting with interventions directed at dialogic discussion between Māori and non-Māori members of community organisations and other actors in the biotechnology industry.
>
> Involvement in consultation processes about genetic modification and other new technologies is increasingly defined as a responsibility of citizens, and scientific organisations invite citizens to actively engage with scientists in science-focused discussion. Global shifts in the responses of governments and scientific organisations to science and technology politics and increasingly dissatisfaction with conventional democratic processes constitute the context for the constructive conversations research programme. Du Plessis notes however, that attempts at dialogue can perpetuate old inequalities between participants and consolidates differences between 'lay' panellists and 'experts,' even in environments that are dedicated to public participation and deliberative democracy which in turn undermines one's citizenship rights and responsibilities.
>
> The paper calls for attention to the need to involve diverse publics in decisions about applications of genetic technologies and suggests that there has been little attention to the 'diverse' and often complex views and responses of actual or potential 'consumers' of new technologies. The constructive conversations project is directed at enhancing public participation in decision-making about emerging health biotechnologies and analyses what members of community organisations have to say about the social issues associated with these technologies. Crucial to the project is attention to Māori definitions of the issues associated with emerging health biotechnologies and the use of Māori conversational strategies in facilitating talk about these issues, hence the importance of kawa, tikanga and ritenga as being a key part of the process when working with Māori.
>
> The process is informed by Māori cultural conventions for engaging in conversation about issues of controversy, draws on international and local experience of focus groups, consensus conferences, panels and dialogic workshops directed at involving members of the public in discussion about science and technology. Following reconvened focus groups with key actors, day long workshops were held bringing together research participants for discussion of issues arising out of the focus groups. The final stage of the project involved talking to policy makers about the relevance of the findings of the project for their work.

2) Cram, F, Phillips, H, Tipene-Matua, B, Parsons, M and Taupo, K 'A 'Parallel Process?' Beginning a Constructive Conversation about a Māori Methodology' in *Journal of Bioethical Inquiry* (Vol. 1, No. 1) at 14.

> This article explores the roles of a sub-group of Māori researchers working in a larger, mainstream research project. As the title suggests, the article documents the

beginning of a constructive conversation about establishing a parallel process as a more appropriate Māori methodology when working with Māori. A concern emerged about ensuring that the methodologies developed for dialogue are appropriate for Māori to allow for the investigation of Māori responses to specific applications of biotechnology. The project examined the usefulness of dialogue processes as a way of gaining greater public participation in decision-making about biotechnology. The process effectively means that a Māori team collects and analyses the Māori research data prior to re-engaging with the full research team. The paper suggests that a Treaty-based relationship in which all parties to the research engage and contribute effectively is critical. While there is a level of certainty about how this process will play itself out, there was a commitment to continue a constructive conversation within the team and to journey together in good faith and trust which is required for negotiating a shared knowledge space where mātauranga Māori experts and science experts can engage effectively in discussing worldviews.

Summary

This literature review has provided a brief overview of the Te Hau Mihi Ata research project on mātauranga Māori and western science whose purpose is to open a new creative knowledge space to unleash innovative thinking and cross-cultural connection that is unique to New Zealand which can be a source of untapped economic, social, environmental and cultural potential.

It has been asserted that Māori have complex and sophisticated learning systems through which mātauranga Māori is transmitted and received. One such system in which mātauranga Māori is created and transmitted is through the use of whakapapa which is regarded as an analytical tool employed as a means by which to understand the Māori world and relationships.

Royal states that it is by understanding the paradigms of Māori knowledge and the application of whakapapa that the evolution of mātauranga Māori will re-commence.[26] Whakapapa is to be an analytical tool employed by Māori to understand the nature of phenomena, its origin, connections and its relationships to other phenomena for describing trends in locating phenomena, and extrapolating and predicting future phenomena.

Whakapapa provides a metaphysical kaupapa of historical descent, patterns and linkage, whereby the animate and inanimate are inter-related, descending from an ancestral origin, Io Matua Kore. Marsden's description of whakapapa as a 'paradigm of reality is to be regarded as actual, probable, possible or impossible.'[27] Whakapapa for Māori represents a 'universal truth', much in the same way that Kuhn describes a paradigm as being an 'entire constellation of beliefs, values, techniques, and so shared by the members of a given community.'[28]

Roberts et al assert that 'the extent to which this underlying theoretical rationale for human whakapapa applies to the non-human has hitherto remained unexplored, at least in the published literature', and whakapapa on its own does not provide the reader with a full account of what knowledge it is revealing. Roberts et al conclude that in its totality, Māori

[26] Royal, C, 'Te Whare Tapere: Towards a Model for Performing Arts' (PhD Doctoral Dissertation, Victoria University of Wellington, 1998) at 8.
[27] Rev. Maori Marsden in Royal, C, *The Woven Universe: Selected Writings of the Rev. Maori Marsden* (Estate of the Rev. Maori Marsden, 20003) at 12.
[28] Kuhn, T. S. *The Structure of Scientific Revolutions*. (Chicago University Press, Chicago, 1970) at 175.

use of whakapapa and narrative creates a 'metaphysical gestalt'[29] or whole, integrated pattern, for the oral communication of knowledge.

Te Ao Mārama, on the other hand, is a traditional set of terms (found in many iwi creation traditions) concerning the world of our actual experience; perhaps the 'real' world. The movement from Te Ao Māori to Te Ao Mārama entails moving from consciously upholding or defending a world to embracing the world as it is and utilising mātauranga Māori in our engagement with it. This is reflexive task – utilising Indigenous knowledge to make sense of the contemporary world. Perhaps one could consider this as a move from an 'abstract' world - 'Te Ao Māori' - to the 'real' world - Te Ao Mārama.'[30]

This paper has provided some context for the Mauri Holders and others to peruse through and whet the appetite as it were on some of the literature and the issues that are currently available on this important yet contentious area. There certainly is a need to develop a negotiated shared knowledge space where both knowledge systems can engage and interact respectfully, effectively, critically and synergistically.

> '*We compliment each other. We also stimulate, challenge and strike sparks off each other. We will understand more, and explore more deeply by working together than we could ever do separately.' – Dame Joan Metge*[31]

[29] Roberts, M, Haami, B, Benton, R, Satterfield, T, Finucane, L, Henare, M., and Henare, M, 'Whakapapa as a Maori Mental Construct: Some Implications for the Debate Over Genetic Modification of Organisms' in *The Contemporary Pacific* (Vol. 16, No. 1, Spring 2004) at 1.

[30] Royal, C, *The Purpose of Education: Perspectives Arising from Mataurnga Maori: A Discussion Paper* (Ministry of Education Report, Version 4, January 2007) at 9.

[31] Cited in Meredith, P & Parr, R, *Collaborative Cross Cultural Research for Laws and Institutions for Aotearoa/New Zealand: A Summary Paper* (Te Mātāhauariki Institute, Occasional Paper, No. 1, University of Waikato, 2001) at 16.

Appendices

Appendix 1: Robinson Excerpt

Appendix 2: Professor Hirini Mead Excerpt

Appendix 3: Tau Excerpt on Whakapapa:

Appendix 4: Cheung Excerpt on Tikanga:

Appendix 5: Aroha Mead Excerpt on GE:

Appendix 6: Harmsworth Excerpt:

Appendix 7: Wilcox et al Document:

Appendix 8: Tipene-Matua Excerpt:

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