

**Ko te amorangi ki mua, ko te hāpai ō ki muri:  
The role of Mātauranga Raranga in the dissemination of Mātauranga Māori**

Ngarongoa Lentfer

An exegesis submitted to the Auckland University of Technology in partial fulfilment of the requirements for the  
degree of Master of Arts

2015

Te Ara Poutama – Faculty of Māori and Indigenous Development

## **Abstract**

Indigenous knowledge comes not from one individual, but from a collective (Lentfer, 2012). Creation stories, cryptic proverbs or whakataukī, songs filled with imagery, symbolism and social value; tribal histories and ceremony were all integrated into everyday activities to inform kaupapa Māori or Māori philosophy and ideology. These can be seen as exemplars that informed cultural values, social interaction and protocols. In addition, analogy and personification of the natural world feature strongly in those expressions and all help to shape individual attitudes towards the care and preservation of the collective group. Māori art forms such as Raranga (to weave; traditional Māori art forms of weaving) are a visual means of communicating this Māori world view. Hence it is important to keep these traditional art forms alive and relevant to today's constantly evolving Māori society.

This research will critically examine the interconnectivity and relationships between Raranga and mātauranga Māori (Māori knowledge) as a valid methodology and pedagogy for the transmission and dissemination of mātauranga Māori.

Accompanied with the written work will be an art piece incorporating traditional raranga and tukutuku (lattice work) practices. The artefact itself represents a three dimensional view of Te kawau mārō, a model adapted by the researcher to illustrate the multiple layers of the methodology and pedagogy.

## TABLE OF CONTENTS

<b>Abstract</b>	<i>page</i> <b>ii</b>
<b>Figures and Images</b>	<b>v</b>
<b>Tables and Whakapapa</b>	<b>vii</b>
<b>Attestation of Authorship</b>	<b>viii</b>
<b>Acknowledgements</b>	<b>ix</b>
 <b>Preface</b>	 <b>x</b>
 <b>Chapter One: Pātikitiki</b>	 <b>1</b>
Introduction	1
The origins of raranga, whatu muka and tukutuku	2
Te Whare Pora and the role of the weaver	6
Indigenous Methodologies	8
Te kawau mārō model	11
Explanation of the model	12
Summary	17
 <b>Chapter Two: Takitahi</b>	 <b>18</b>
Introduction	18
Māori World View	19
Whakapapa	22
The role of raranga, whatu muka and tukutuku in te ao Māori	24
Summary	28
 <b>Chapter Three: Māwhitiwhiti</b>	 <b>30</b>
Introduction	30
The transmission of raranga, whatu muka and tukutuku as an ancient art form and its relevance in the world	31
Te kawau mārō – a Māori pedagogy in the transmission of knowledge and the expression of mātauranga	

Raranga	32
The preservation and sustainability of raranga, whatu muka and tukutuku in the contemporary world	35
Summary	36
 <b>Chapter Four: Niho taniwha</b>	 <b>37</b>
Introduction	37
Explanation and description of the artefact	38
Summary	54
 <b>Chapter Five: Tūmatakāhuki</b>	 <b>55</b>
Introduction	55
The concept of 'koha'	58
Summary	62
 <b>Bibliography</b>	 <b>65</b>
<b>List of illustrations</b>	<b>72</b>
<b>List of tables</b>	<b>75</b>
<b>Glossary</b>	<b>76</b>

## Figures

Figure 1: Rangihau's Conceptual model	9
Figure 2: Tīenga model	10
Figure 3: Te kawau mārō model	12

## Images

Image 1: Pātikitiki	1
Image 2: Te Puawaitanga [sic]	4
Image 3: Kākaho	5
Image 4: Pīngao	5
Image 5: Pā harakeke	7
Image 6: Takitahi	18
Image 7: Inside Te Pūrengi	26
Image 8: Te Puawaitanga [sic]	27
Image 9: Māwhitiwhiti in kete muka	27
Image 10: Whāriki	28
Image 11: Māwhitiwhiti (whatu)	30
Image 12: Māwhitiwhiti (raranga)	30
Image 13: Niho taniwha	37
Image 14: Kaipara, AUT marae	40
Image 15: Designing the work associated with the space	41
Image 16: Designing the work associated with the space	41
Image 17: Designing the work associated with the space	41
Image 18: Material preparation	44
Image 19: Material preparation	44
Image 20: Material preparation	44

Image 21: Rito development	45
Image 22: Rito development	45
Image 23: Rito development	45
Image 24: Mātua development	46
Image 25: Mātua development	46
Image 26: Mātua development	46
Image 27: Tukutuku development	47
Image 28: Tukutuku development	47
Image 29: Tukutuku development	47
Image 30: Design aspects	48
Image 31: Design aspects	48
Image 32: Design aspects	48
Image 33: Ranga	50
Image 34: Tuku	50
Image 35: Wha[tu]	50
Image 36: Te kawau mārō	53
Image 37: Tūmatakāhuki	55
Image 38: Innovative tradition	57
Image 39: Innovative tradition	57
Image 40: Innovative tradition	57
Image 41: Traditional innovation	60
Image 42: Traditional innovation	60
Image 43: Traditional innovation	60
Image 44: Te kawau mārō and whānau	62

## Table

Table 1: Te kawau mārō: A Māori pedagogy emanating from mātauranga Māori and mātauranga Raranga	14
Table 2: Artefact care	51

## Whakapapa

Whakapapa 1: Tāne	23
Whakapapa 2: Tangaroa	24

### **Attestation of Authorship**

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of university or other institution of higher learning.

A handwritten signature in blue ink, appearing to read 'Ngarongoa Lentfer', with a stylized, cursive script.

Ngarongoa Lentfer



## Acknowledgements

To Te Wānanga o Aotearoa, for the opportunity and support to share my passion for taonga tuku iho with students.

To the whānau of Auckland University of Technology, Te Ara Poutama, including the Māori and Pasifika Postgraduate Students Wānanga Series, much love for all the tautoko to 'us weavers'. In particular Professor Tania Ka'ai, Dr. Rachael Ka'ai Mahuta, Tania Smith and Nomana Anaru for all the guidance and support.

To my friends who kept me on track; Rose Te Ratana, Shelley Hoani, Rangi Joseph, Jackie McRae – Tarei, May Te Pou and Simi Paris. Much thanks goes to Moera Beattie and Karen Barrett.

To my whānau; that's us till the next kaupapa. Love yous.

And to my partner in time, Gloria Taituha. Yeeha we did it!

## **Preface**

### **Use of Māori words**

All words in the Māori language have been written in normal font and not italicised. Each word when used for the first time is followed by a translation of the word in brackets. A full list of Māori terms used in this exegesis can be found in the Glossary as further reference. The use of a long vowel has been denoted by using a macron with the exception of direct quotes. All direct quotes have been incorporated into the text in quotation marks whereas long quotes have been typed in 11 point font, single spaced and indented so that it stands out from the text. In this case, quotation marks have not been used.

### **Exegesis Format**

Raranga patterns have been selected as chapter titles as their meaning reflects the content of each chapter. The meaning of each title is explained in the introduction that follows. Chapter One is called Pātikitiki; Chapter Two is called Takitahi; Chapter Three is called Māwhitiwhiti; Chapter Four is called Niho Taniwha; and Chapter Five is called Tūmatakāhuki. A landscape format has been used as this is aesthetically more appealing to the researcher for an exegesis related to traditional Māori arts. Images have been used to illustrate design and construction processes, locations, important people and landmarks relevant to the text.

### **Clarification of terms**

A capital is used for Raranga when referring to Māori weaving generally, and a lower case 'r' when referring to raranga as a specific form of Māori weaving.

## **Outlines of each chapter**

Chapter One examines the origins of raranga, whatu and tukutuku and their relationship to Te Whare Pora, The House of Weaving (Puketapu-Hetet, 2000), the artform of weaving and to the role of the weaver. The methodology and specifically the model developed for this research, and its application is also examined, particularly the connection to the artefact.

Chapter Two focuses on articulating a Māori world view and aspects of mātauranga Māori. Cultural concepts are discussed that relate closely to raranga, whatu muka and tukutuku. An explanation of how these concepts are connected to Raranga is also given. The whakapapa of various weaving materials is revealed, along with an introduction to the various types of Raranga. To conclude, various features, patterns and functions of raranga and tukutuku within te ao Māori are explained.

Chapter Three focuses on the revitalisation and transmission of raranga, whatu muka and tukutuku as ancient art forms, and their relevance in the contemporary world. The role and validity of ako (to teach and/or to learn), a Māori pedagogy, as an integral part of knowledge transmission is explained in order to understand mātauranga Raranga, a term coined by the researcher to capture an old body of knowledge. The importance of the preservation and sustainability of raranga, whatu and tukutuku in the contemporary world completes this chapter.

Chapter Four focuses on the explanation and description of the artefact. A breakdown of construction processes from the design aspect to the placement of the artefact are also provided. Tikanga observed during these phases are also described, as is the role of the researcher in maintaining the authentic art form, which includes specific language, in a modern world as a legacy of tohunga.

Chapter Five focuses on inter-generational transmission of knowledge and the significant role of the kairaranga in terms of being a caretaker of the art form to ensure its survival in the form that it was originally given, thus upholding important tikanga. The place in the contemporary world for these art forms which reflect ancient knowledge and wisdom reflective of its location in te ao Māori is highlighted.

### **The Artefact**

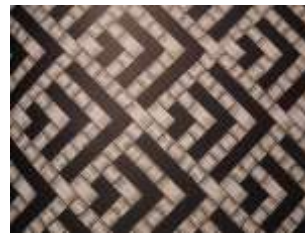
The title of the exegesis, 'Ko te amorangi ki mua, ko te hāpai ō ki muri: The role of Mātauranga Raranga in the dissemination of Mātauranga Māori' connects to Te kawau mārō in the traditional meaning and to the ariki (chief) Maniapoto, as he is considered the 'amorangi' and his ope tauā is viewed as the 'hāpai ō' (war party). Furthermore, the title also relates to the proposed indigenous model, Te kawau mārō, as it proposes a Māori pedagogy with each segment of the artpiece reflecting a specific part of this pedagogy.

## Chapter One: Pātikitiki

### Introduction

Pātiki is the Māori name for flounder and sole, an oval flat-shaped fish that is mostly found in tidal estuaries. Pātikitiki is a type of pattern symbolic of the pātiki which can be applied to all aspects of Raranga. Utilised to represent an abundance of food and/or people, it is particularly favoured by coastal iwi (tribe) in their whāriki (mat) and tukutuku construction.

Image 1: Pātikitiki



(Pendergrast, 1984, pattern 107)

Pātikitiki, as a chapter title, is relevant as it acknowledges the researchers origins, locates her as a kairaranga (weaver) within this exegesis and introduces concepts and practices specific to te ao Māori (the Māori world). The researcher is from Ngāti

Tamainupō, a hapū (sub-tribe) of Ngāti Maniapoto. The researcher is from a fishing family in a small coastal community; where fishing for pātiki was a daily activity for her whānau (family) and featured regularly on their daily menu.

This chapter will examine the origins of raranga, whatu (finger weaving; fibre weaving) and tukutuku and their place in te ao Māori. An Indigenous methodology and philosophy will also be discussed as the framework from which the research has been undertaken and analysed.

### **Origins of Raranga, Whatu and Tukutuku**

The origins of raranga, whatu and tukutuku are contained in Māori cosmogony and genealogy. Raranga, a generic term for traditional art forms of Māori weaving, is a unique art form used to artistically express Māori histories, current Māori issues and Māori future aspirations (Mead, 1996). It is also the term used to encompass all aspects of this traditional practice, which includes whatu and tukutuku (Puketapu-Hetet, 2000). Kete (woven basket) and whāriki are examples of raranga. Within the realm of whatu reside korowai (cloak) and kākahu (various forms of clothing). Tukutuku are the woven wall panels of a wharenuī (meeting house) that speak of the history of the people of that rohe (district) (Auckland Museum, 1997). However, in some tribal regions such as Te Tairāwhiti (East coast of the North Island), the walls of the wharekai (dining room) are also adorned with tukutuku.

The origins of raranga, whatu and tukutuku are also contained within Māori oral narratives, Te Awekotuku (2007) provides an account of Niwareka who was a tūrehu or fairy woman. Niwareka as a result of being abused by her mortal husband Mataora, fled back to her home in the underworld and parents; Manutonga, her mother, and Uetonga, her father. Filled with genuine

remorse, Mataora searched for Niwareka, and eventually encountered her father on his travels in the underworld. On seeing Mataora, Niwareka's people could not contain their laughter as they noticed Mataora's moko (Māori tattoo) running down his face. This was because it was not a permanent moko as it had not been applied by the ngau (bite) of the uhi (chisel), as was the case with the people of the underworld. In his shame, Mataora pleaded for Niwareka to return with him to the human world; he also pleaded with Uetonga to receive and learn the art of moko pertaining to the underworld (Best, 1942; Reed, 2004).

Niwareka, loving him still, took pity on him, and agreed to return to the world of humankind (Ihimaera, Adsett & Whiting, 1996). Niwareka also took gifts back with her to the human world; one was the elaborate garment 'Te Rangihapapa' (which many weavers believe was constructed using the process of whatu) (Te Awakotuku, 2007). Copied from the cloak named 'Rena', Te Rangihapapa was woven by the magic of Hinerauwhāangi, one of the daughters of Hinetītama (Reed, 2004). From this source came the knowledge of tāniko, a finger weaving technique of twisting multiple fibres and colours into one bright panel. Tāniko enhance the borders of kaitaka (a highly prized cloak made of flax fibre with a tāniko ornamental board) and korowai, the elegant attire of chiefs, and, carries within the various designs, that, when woven together illustrate the complexity of Raranga whakairo (Raranga patterns) (Mead, 1968).

**Image 2: *Te Puawaitanga* [sic], korowai with tāniko border**



(Te Wānanga o Aotearoa, 2009)

Another description by Baynes (2003) reveals the tale of Pīngao, the daughter of Tangaroa. Living on the ocean fringe as seaweed, she fell in love with Kākaho, son of Tāne. Ignoring warnings from her father, Pīngao left the sea to be with Kākaho in the sand dunes. Her journey was short-lived as the sand began to burn her. Becoming stuck, she called for help, but the narcissistic Kākaho ignored her. Tangaroa could only aid her by spraying her with sea water. As a consequence of this transgression, Pīngao resides there to this day, as the beautiful golden sand sedge along the sand dunes, still pining for Kākaho (Baynes, 2003).



**Image 3: Kākaho**



(Rolfe, J. 2011)

**Image 4: Pīngao**



(Clay, T. 2014)

However, all was not lost for Pīngao, as a collective of descendants of Papa-tū-ā-nuku, known as weavers, continue to this day to respond to her cries, that is, through the creation of tukutuku Pīngao is bound to Kākaho, through tui (the stitch). In some oral narratives, Pīngao is said to be Ngā Tukemata o Tāne (the eyebrows of Tāne), given as a peace offering to Tangaroa. However, “Tangaroa rejected this gift and threw them to the shore. There they sprouted and grow today as pīngao, symbolising the boundary between the realms of Tāne and Tangaroa.” (Wassilieff, 2013, p. 1)

### **Te Whare Pora and the role of the weaver**

Whare, or houses, were purpose-built for studying a range of Māori ways of life. Te Whare Pora (The House of Weaving) was designed for learning all types of weaving, “there was a knowledge base belonging to the house – a mātauranga of weaving” (Mead, 2003, p.256). The education of the tauira (student) began with rituals of initiation (Mead, 2003). Best (1898) identified that these formal procedures included a tohunga (expert, authority) who played a crucial role in the initiation process. The tohunga would be knowledgeable about the process, including appropriate karakia (ritual chants) that needed to be recited during the procedure. A tauira of Te Whare Pora learnt an array of customs surrounding weaving and the art forms of weaving itself. As well as this, physical and spiritual implications of transgressing these tikanga (custom, practice; approach) were explained by the tohunga who stressed the significance of weaver preparation in regards to the observation of these principles. A weaver strives to be in harmony with all facets of her existence, and when this state is achieved, the procurement and retaining of knowledge will follow (Mead, 2003; Puketapu-Hetet, 2000).

The primary weaving material, harakeke (New Zealand flax *Phormium tenax*) is utilised to produce a variety of effects such as kete and whāriki (McRae-Tarei, 2013). Growing in a fanlike fashion, each rau harakeke (long blade-like leaf) is regularly applied as a metaphor to represent generations of the human whānau (Puketapu-Hetet, 2000).

**Image 5: Pā harakeke**



(Lentfer, N. 2011)

The rito or central shoot is the smallest or undeveloped leaf that represents the child. The rau (blade) either side of the rito are the mātua, representing the parent generation which support the growth and development of the rito. The child and the parent set of rau are essential for the sustainability of the life force of the plant. If one or more of these three are cut, the plant will die and therefore the belief is, so will the whānau. Therefore the rito is crucial to harakeke development. As a model that describes a family unit and its significance, the harakeke is an example of how encrypted messages are contained within te ao Māori;

When activated Māori [sic] world-views immediately place Māori [sic] thinking, knowledge and application at the centre of their processes when 'selecting in' and 'selecting out' knowledge and practice. This is the activating of tino

rangatiratanga (absolute cultural integrity in this context). Unique bodies of Māori [sic] cultural knowledge with their depths of definition and application are privileged, having being tested over generations, in the full range of human endeavour (Pohatu, 2003, p. 1).

### **Indigenous Methodologies**

The cultural comprehension, as described by Pohatu (2003), of the world has a powerful influence on the approach, or approaches, Māori take when conducting any type of enquiry or application of theory. Pohatu (2003) agrees and outlines the role that this has in Māori development;

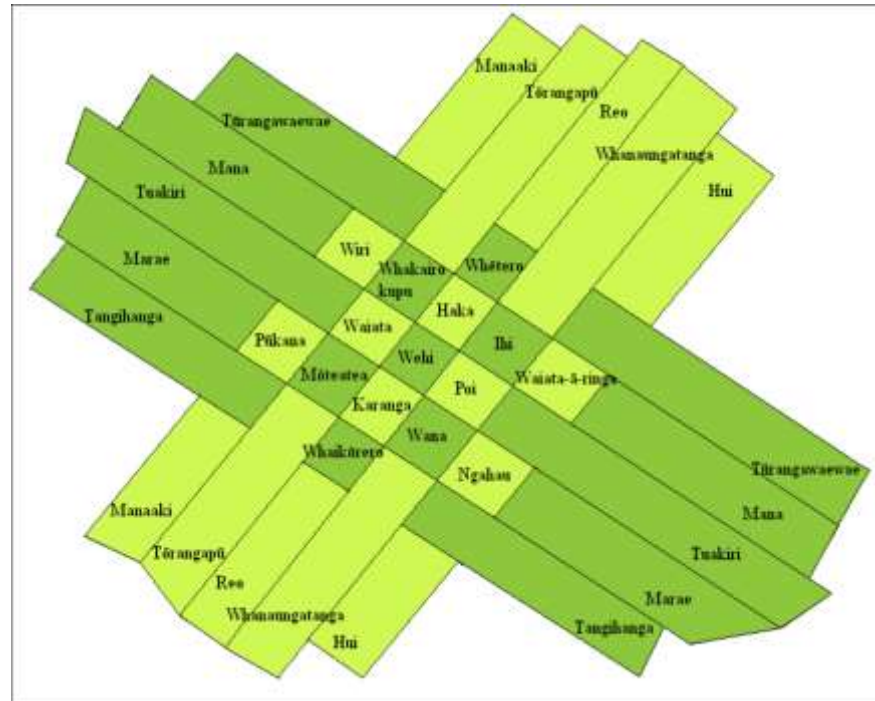
Theory is an integral component in the development of this world-view. It is intervention at another level that offers additional dimensions of how and why valued knowledge and practice is chosen. This is part of the endeavour to gain a more accurate reading of the variables in our lives as Māori [sic]. Taking the time to always be aware of what is real to us as Māori [sic], accords safe space to identify and comprehend the embedded theory in what we as Māori [sic] do in any context. We begin to be 'in charge' of 'what is meaningful' in life, in relationships, in knowledge, in thinking, in every context in which we engage. We deliberately choose to align with theory more connected to our reality (p. 9).

This research is located within te ao Māori. Māori scholars within the academy have pushed boundaries creating space for the validity of Mātauranga Māori in all its forms. For example, the late John Rangihau in the 1970s developed a conceptual model from which one can begin to understand a Māori world view (Ka'ai & Higgins, 2004). Notably, Rangihau locates Māori through the notion of Māoritanga, in the centre of the model with the western world on the periphery under Pākehātanga recognising the interface between the two worlds.

The diagram illustrates a complex network of relationships between various Māori concepts, organized into layers. The top layer features 'Pākehātanga' (twice) connected by double-headed vertical arrows to 'Politics' and 'Mauri' respectively. 'Politics' is connected to 'Economy' and 'Whanaungatanga'. 'Mauri' is connected to 'Tūrangawaewae' and 'Wairua'. The middle layer includes 'Reo', 'Mana', 'Aroha', 'Māoritanga', 'Aroha', 'Tapu', 'Kawa', 'Hui', 'Kai', 'Marae', and 'Hākari'. The bottom layer includes 'Tangihanga' and 'Arts & crafts', both connected to 'Pākehātanga' by double-headed vertical arrows. Numerous horizontal and diagonal lines connect the concepts across the layers, representing a dense network of relationships.

Similarly, Dr Rachael Ka'ai-Mahuta in 2010 developed the Tienga model (Ka'ai Mahuta, 2010).

**Figure 2: Tienga Model**



(Ka'ai-Mahuta, 2010, p.20)

Ka'ai-Mahuta developed her model for her doctoral thesis. She began with the Rangihau model using the concept of arts and crafts as a portal. She was inspired to develop her own model which illustrates the integration of key Māori concepts contained within the realm of the Māori performing arts given that the focus of her doctoral thesis was waiata (song) and haka (form of dance) as commentaries and archives of Māori political history. The use of tienga (finely woven whāriki made from kiekie) is

appropriate to show the relationship between the performing arts and Raranga and Whatu as “they both belong to Te Kete Aronui (one of the three baskets of knowledge) and pertains to love, peace and the arts and crafts” (Ka’ai-Mahuta, 2010, p.20). They are also connected through whakapapa as raranga falls under the mantle of Hineteiwaiwa who is the atua of childbirth, raranga, and anything pertaining to women.

Both models of Rangihau and Ka’ai-Mahuta locate Māori at the centre and continue “the tradition of illustrating the holistic nature of a Māori world view” (Ka’ai Mahuta, 2010, p.20).

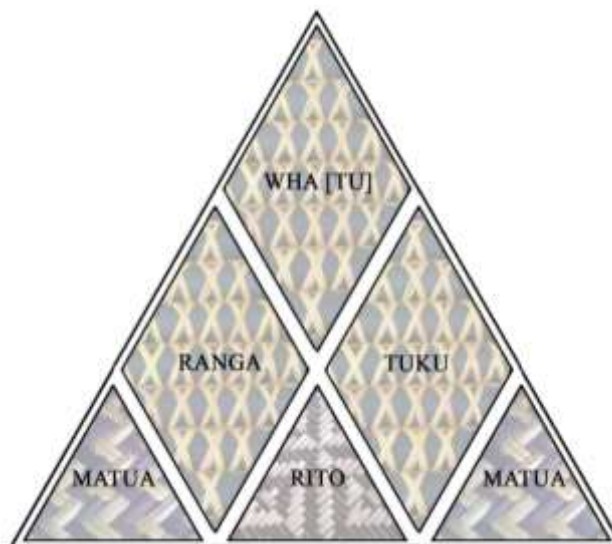
### **Te kawau mārō model**

It is against this background that the researcher has created the model, ‘Te kawau mārō’ which locates Ngāti Maniapoto knowledge at the centre. Historically, Te Kawau Mārō is a battle formation utilised by the ariki (chief) and ancestor, Maniapoto (Maniapoto Māori Trust Board, 2006). This tactic involved the ope tauā (war party) working collectively and advancing in triangular ranks to form a wedge to split the enemy line. In the centre of this shape were the ariki and particular tohunga, who were protected by the toa (warriors) (O. Waitai, personal communication, 14 November, 2014). This triangle shape is modelled after the kawau, or cormarant, whereby the tip of the triangle reflects the head of these birds; a representation of unstoppable determination. The diagonal sides of the triangle represent the wings which indicate the flight or movement of the bird. In relation to education, can be thought of as an ongoing process, continuously moving, never stationary (Hill, 2010).

This symbol of strength, resolve and union is expressed in the dying words of the ancestor Maniapoto to his people “Kia mau ki teenaa [sic]. Kia mau ki te kawau maaroo [sic] (Stick to that, the straight flying cormarant)” (Jones & Biggs, 2004, pp.186-

187). This proverb reinforces the attitude that “our future wellbeing will be determined by the strength of our commitment to stand together united in spirit, mind and purpose” (Ngāti Maniapoto Māori Pact Trust, 2013, p. 1).

**Figure 3: Te kawau mārō model**



(Lentfer, 2014)

### **Explanation of the model**


The model is synonymous with the artefact. The model contains three diamond shapes and three triangular shapes; and these are all contained in one large triangular shape. The researcher favours triangular and diamond shaped patterns, which are predominant

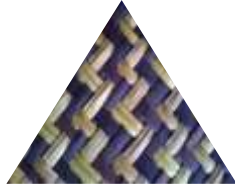
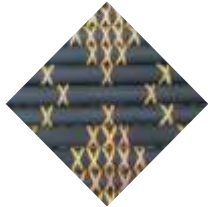


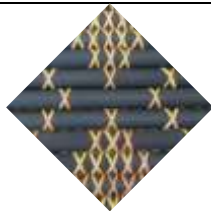
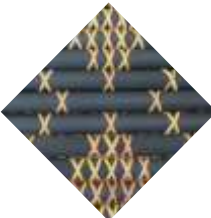
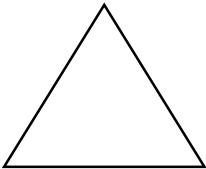
in all aspects of raranga, whatu muka and tukutuku work (Puketapu-Hetet, 2000). The model has been designed as a pedagogical model for teaching and learning using concepts that emanate from Mātauranga Raranga (knowledge encompassed in raranga, tukutuku and whatu) but with the idea that the model can be applied to a range of learning contexts within te ao Māori and the transmission of knowledge. Each segment or shape reflects a specific element of the pedagogy being proposed. Each shape has been afforded a name: Wha[tu], Ranga, Tuku, Tapa, Rito and Mātua (the two bottom outer triangles). Each of these represent a particular aspect essential to the teaching or learning situations, incorporating culturally appropriate subject matter and pedagogy.

The proposed pedagogy is outlined below in Table 1 and shows the relationship between the pedagogical concepts, the artefact and the relevance to learning and teaching. The proposed pedagogy emerges from the world of raranga, tukutuku and whatu, as depicted by the concepts, with the exception of 'tapa', which has been used to visually and spiritually connect Māori to their Pacific origins.

**Table 1. Te kawau mārō: A Māori pedagogy emanating from mātauranga Māori and mātauranga Raranga**

Pedagogical Concept	Māori meaning	Application and relevance to learning and teaching	Relationship between the pedagogical concept and the artefact
<b>Rito</b>	Central shoot of the harakeke which represents the child	Relates to the focus or core activity being taught/learned	<p><b>Figure 4: Rito</b></p> 

<b>Mātua</b>	The two blades of the harakeke which sit on either side of the rito and represent the parents sitting on either side of the child	Relates to the learning support tools needed by the learner	<p><b>Figure 5: Mātua</b></p> 
<b>Ranga</b>	This can refer to the word [ra]ranga which means to weave or the art form of weaving and also to the word ranga[hau] which means to research	Relates to the transmission of knowledge by the teacher and the acquisition of knowledge by the learner, but also implies that the learner is in pursuit of knowledge	<p><b>Figure 6: Ranga</b></p> 
<b>Tuku</b>	This can refer to the word tuku[tuku] which is ornamental lattice weaving and requires two people working collaboratively to achieve the final product. It can also mean being selective or	Relates to critical thinking and involves analyzing and reflecting critically on the theory and practice of their work and study	<p><b>Figure 7: Tuku</b></p>

	discerning and letting go of what is not relevant to the task		
<b>Wha[tu]</b>	Means fibre weaving which is different from raranga. 'Whā' is the shortened form of 'whaka' and they are both particles used to 'cause something to happen' (Moorfield, 2011, p.242).	Relates to the learners attitude, commitment, focus, self-discipline and motivation as key drivers that can influence whether or not the desired outcome is achieved and also the quality of the outcome	<p><b>Figure 8: Wha[tu]</b></p> 
<b>Tapa</b>	This means 'recite' (Moorfield, 2011, p.192) but also refers to a piece of fabric made from tree bark commonly produced in the Pacific representing the origins of Māori and our whakapapa to the Pacific which historically was only ever recited and not written down	Relates to te ao Māori and all that it contains such as cultural concepts and practices within this world view and a reminder of our genealogical links to the Pacific. It also locates the learner and the teacher within the same world view and philosophy	<p><b>Figure 9: Tapa</b></p> 

Collectively, each figure represents a layered framework that can be used to plan and develop activities from a teacher or learner's perspective. Firmly located in te ao Māori, Te kawau mārō as a pedagogical model, is informed by Te Kawau Mārō and the strategic use of the battle formation by Maniapoto as a model of 'best practice' to a successful outcome in the preservation of his people; their lands, environment, customs, language, and aspirations for a prosperous future. Thus Te kawau mārō is proposed as a Māori pedagogical model of best practice.

### **Summary**

Often referred to as taonga tuku iho (heirloom), narratives and mnemonics are the mechanisms used to transmit Māori knowledge, incorporating cosmogony, philosophy, genealogy and oral narratives (Ihimaera, Adsett & Whiting) 1996; McRae, 1997). As Puketapu-Hetet (2000) outlines, "Maori weaving is full of symbolism and hidden meanings embodied with the spiritual values and beliefs of the Maori people", (Puketapu-Hetet, 2000. Tu Tangata section, para. 1) and the weaver utilises traditional and contemporary materials to communicate knowledge, to preserve and convey traditional practices while keeping Raranga relevant in today's society. Located in mātauranga Raranga and following Māori exemplars, the model, 'Te kawau mārō' can be seen as another approach or strategy for the conservation and sustainability of mātauranga Māori.

## Chapter Two: Takitahi

### Introduction

Takitahi or, over one, under one, is the foundation pattern in raranga. This whakapapa (arrangement of weaving strips), is the basis from which most other weaving patterns derive and also assists the weaver by keeping, or locking all the raranga work together.

**Image 6. Takitahi**



(Pendergrast, 1984, pattern 2)

Takitahi is likened to te ao Māori, which is where this work is located. In this context, whakapapa, or genealogical bonds, frame the core of this chapter. Specific attention is given to the practices of Raranga, revealing the connection between Māori cultural concepts relevant to this art form.

## **A Māori World View**

“Pacific Islanders recall their history through narratives of spatial and temporal movements of ancestors, or primeval beings, across the landscapes they reside in” (Kulcher & Were, 2005, p.10) Māori can be classified as Pacific people through our genealogies and linguistic origins; so it is that a Māori world view relates to oral narratives and the cosmology of te ao Māori; a notion/practice shared by our Pacific relations (Buck, 1950; Grey, 1961). Implicit in this view is the origin of the universe, formation of the earth and humankind. Marsden (1992) and Best (1995) support this view by describing Māori theogonic beliefs as an integral part of Māori existence. As an example, Māori consider all atua (supernatural being) to be ancestors and are therefore named. This act of personification gives further support to the Māori view of their origins (Pohatu, 2004).

Barlow (1991) portrays the Māori belief system as a positive, interdependent relationship with concepts such as tapu (sacredness), mauri (life-force) and mana (prestige, authority) playing a considerable role in Māori life. Tohunga (expert, authority) were charged with the responsibility of “establishing, maintaining and explaining the relations between things of creation” (Henare, 2003, p. 74).

This Māori way of life was (and still is) expressed through typical Māori actions or practices known as tikanga, described by Mead (2003) as “the set of beliefs associated with practices and procedures to be followed in conducting the affairs of a group or individual” (p. 12). Tikanga, as Mead (2003) explains originates from an amassed wealth of mātauranga Māori (Māori bodies of knowledge) spanning multiple generations of Māori past, present and future.

Indigenous knowledge is indigenous precisely “because it is incorporated in a way of life; part experience, part custom, religion, tribal law and the attitude of the people toward their own lives and those of other living things (Kincheloe & Semali, 1999, p.290).

It is against this background, that it is proposed by the researcher that mātauranga Raranga, also referred to in earlier years as “te mātauranga o ngā raranga/whatu” (Te Kanawa, 2009, p.142), is located within the domain of Mātauranga Māori and, within this body of knowledge, are key cultural concepts relating to raranga such as tapu and noa, mana and mauri, tikanga and ako. Within a Māori cultural context, practice and theory are described as needing to go hand in hand in order for concepts to have meaning (Pere, 1997). The interconnectedness of Māori concepts and the multiple definitions of terms such as those mentioned above can be difficult for individuals to understand if they have not been raised in, or are a part of, a Māori society. In particular, the spiritual environment of te ao Māori could be overwhelming as it regulates and shapes how people relate to one another and the world around them.

Specialised schools of learning (*whare wānanga*) existed before European arrival and the protocols and practices for higher learning were of a high order. The application of sacred and constructed knowledge to human behaviour (*ritenga tangata*) was guided by tohunga and it requires an understanding of the underlying elements or principles of the world view (Henare, 1998, p.3).

As Te Ratana (2012) outlines, Te Whare Pora, or The House of Weaving, provides a societal context and space for the dissemination of mātauranga Raranga to occur. According to Ka'ai (2007) the way that knowledge is shared is just as important as the knowledge itself. Lentfer (2012) supports this view and adds that “a primary method of sharing Mātauranga Māori throughout Māori society is by exposure. Māori societies know what they know because they were exposed from an early age



to a variety of situations where they were expected to participate and perform” (p.122). This is relevant too for mātauranga Raranga and Te Whare Pora.

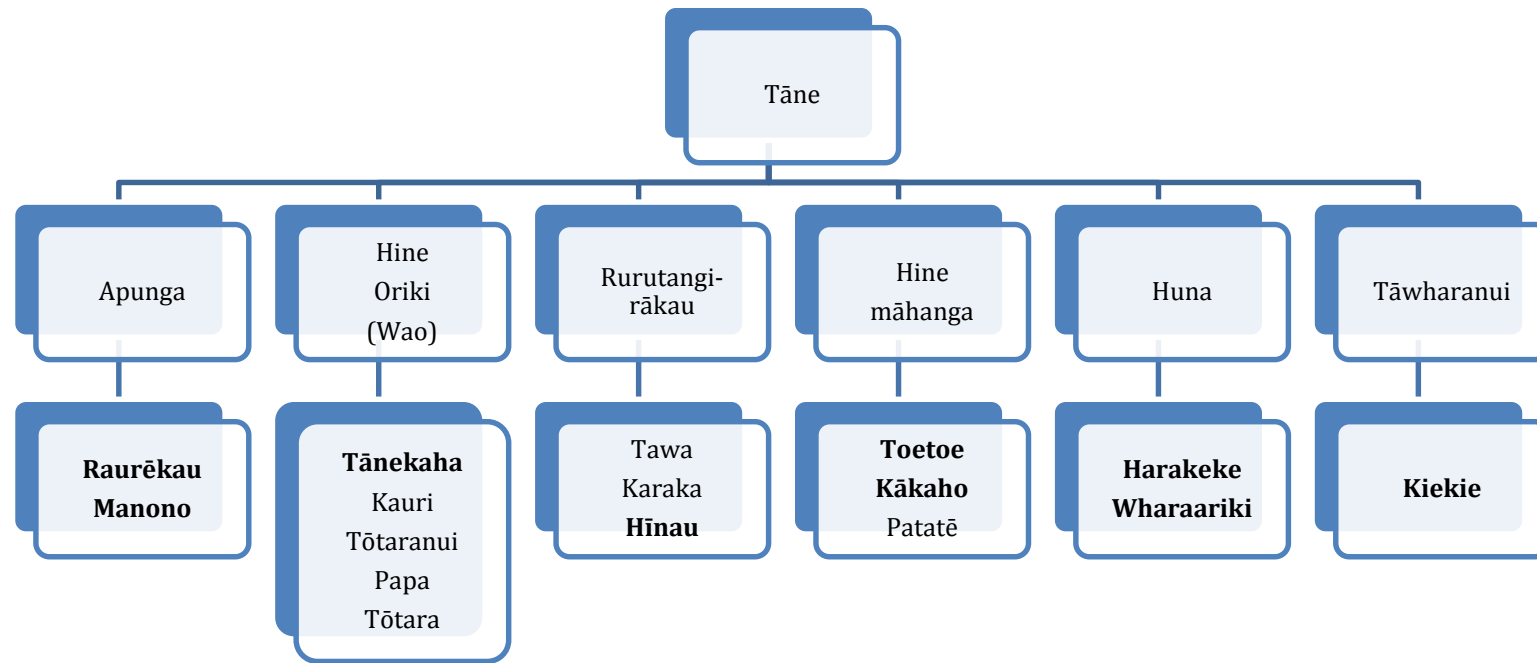
Within the realm of Raranga, tikanga dictates that karakia should be recited prior to the harvesting of weaving materials (McRae-Tarei, 2012). In addition, there may be karakia before a tauira begins weaving the first line of tāniko on a korowai. This line or row is called te aho tapu or whakamata (Te Kanawa, 2009). This initial line must be completed without stopping. Karakia, as described by Mead (2003) are incantations that can be used to encourage and mentally strengthen the weaver and help an individual to focus on a demanding task such as te aho tapu, which may take up to several hours to complete (Puketapu-Hetet, 2000).

Like karakia, concepts such as mana, tapu, noa and mauri are an integral part of Māori weaving and the weaver (Puketapu-Hetet, 2000). Originating from atua, mana refers to spiritual influence and power and is represented by tapu. (Best, 1934). “Tapu is something that teaches you how to respect the whole of nature, because Maori things involve the whole of nature.” (Pewhairangi, 1992, p. 10) Tapu at times can be restrictive and an example of this relates to the harvesting of harakeke, plant material fundamental to Māori weaving. As previously mentioned, the centre shoot, or rito, as well as the leaves on either side (awhi rito) are never cut. The rito and awhi rito are essential for the sustainability of the mauri or life force of the plant (Lentfer, 2012). In Mātauranga Māori, harakeke is a metaphor for the whānau; the rito and awhi rito representing the child and parents respectively (Te Kanawa, 2010; Te Ratana, 2012). “Noa often paired with tapu restores the balance. The perception of noa is also relevant for the weaver as one cannot always be in a state of tapu.” (McRae-Tarei, 2012, p. 8). Māori tenets such as

those described guide the weaver in maintaining the *mana* of whakapapa; with atua, with knowledge and with the materials themselves. These concepts, as well as others frame the Māori world view (Ka'ai, Moorfield, Reilly, & Mosley, 2004).

### **Whakapapa**

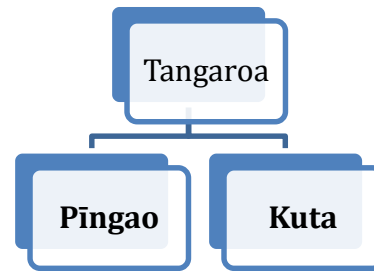
As with all things animate and inanimate, raranga and whatu muka have a whakapapa which locates these art forms within te ao Māori; specifically with direct lineage to two atua who are brothers, namely, Tāne and Tangaroa. Weaving materials are highlighted in bold in both tables.



### Whakapapa 1: Tāne

(Adapted from Best, 1995)

## Whakapapa 2: Tangaroa



(Adapted from Best, 1995)

Contained within this whakapapa are resources vital to Raranga. From the trees raurēkau, tānekaha and hīnau, which contain brilliant dyeing colours in their bark, to weaving materials such as harakeke, kiekie, pīngao and kuta, Tāne and Tangaroa provide all the materials required for raranga, tukutuku and whatu.

### **The role of raranga, whatu and tukutuku in te ao Māori**

The role and purpose of tukutuku in te ao Māori was historically, and continues to be in modern times, to complement the whakairo (carvings) found along the walls in the wharenui (meeting house) (Hiroa, 1921). These usually tell a particular story of an ancestor; whereas tukutuku shares historical accounts or depicts special features of the area the wharenui is located. A wharenui was considered unfinished or incomplete without tukutuku adorning the walls.

...who decorated panels formed an important finish to the large meeting-houses and the carved houses of chiefs of any standing. A carved house without lattice-work stitched in patterns, no matter how simple, had an air of incompleteness, or even, poverty, that the old-time Maori felt was not in keeping with the prestige that a well-carved house should convey (Hiroa, 1921, p. 452).

The rectilinear style of tukutuku also complements the curvilinear shapes found in the kōwhaiwhai (painted rafters) and whakairo.

**Image 7: Inside Te Pūrengi, AUT Marae**



(Te Ara Poutama, 2010)

Raranga has a variety of functions traditionally, with the majority of items created for a practical purpose, while some pieces were for ceremonial reasons (Best, 1898). They were worn (as with korowai), carried (as with kete), and walked upon (as with whāriki).

**Image 8: *Te Puawaitanga* [sic], korowai with tāniko border**



(Te Wānanga o Aotearoa, 2009)

**Image 9: Māwhitiwhiti in kete muka**



(Lentfer, 2014)

**Image 10: Whāriki**



(Te Ara Poutama, 2014)

### **Summary**

Raranga is a term most commonly used to encompass all aspects of the traditional practice of Māori weaving, which includes raranga, whatu muka and tukutuku (Pendergrast, 1987). Raranga continues to play an integral part within te ao Māori and has clear and strong connections to Māori cosmogony.

Whakapapa was more than an issue of identity through genealogical connections. It provided explanations for the origins and present position of all things. Whakapapa informed who we are, how we are connected to each other, what whakapapa means in our social relations and why it matters. It also set up a relational framework governed by notions of reciprocity. Whakapapa also underpins Maori relationships with the natural environment and spiritual realm through *Papatuanuku* (Earth Mother), *Ranginui* (Sky Father) and our many atua (gods/godesses) that make up the *Maori* world (Pihama, Smith, Taki & Lee; 2004. p18).



Core beliefs and practices also play a significant role in Māori society. Tikanga such as karakia acknowledge the reciprocal nature of the relationship that weavers have with the materials that they use.

Like a *koru* on the fern, each ethic reveals an inner core as it unfurls, and they are the foundations of *Maori* epistemology and hermeneutics – knowledge and interpretation of oral traditions, events and history. Together they constitute a cosmic, religious world-view and its philosophy, from which can be identified an economy of affection and the utilisation of resources (that) aims to provide for the people in *Maori* kinship systems (Henare, 1998. p7).

Observance of key concepts, such as mana, tapu and noa are controlled by tikanga. For example, the continuation of weaving material stock, like harakeke, relies on restrictive measures. The rito and mātua are never harvested; thus the sustainability is ensured. Utilised as symbols for a child and its parents, this tikanga also serves as a reminder of the vital place that whānau has in te ao Māori.

## Chapter Three: Māwhitiwhiti

### Introduction

Māwhitiwhiti, also known as kōwhitiwhiti and māhitihihi whakatutu, is a pattern used in raranga and whatu. The whakapapa or whenu arrangement differs greatly between these two fields of Raranga. In raranga, a variety of combinations of takitahi, takirua (over two, under two) and takitoru (over three, under three) are used to create a particular look. In whatu, māwhitiwhiti is formed with groups of five whenu, with the first and fifth whenu being twisted in a way that a cross is created. This pattern supports the body of the piece, and, as a counting system assists the weaver to calculate accurate whenu numbers.

**Image 11:** Māwhitiwhiti (whatu)



(Lentfer, 2014)

**Image 12:** Māwhitiwhiti (raranga)



(Pendergrast, 1984, pattern 24)

Māwhitiwhiti, in its whatu form relates to how Māori pedagogy supports knowledge transmission of raranga, whatu and tukutuku, and therefore mātauranga Raranga development. In its raranga form, māwhitiwhiti aligns with the variety of ways that raranga, whatu and tukutuku can, and are being, revitalised as a valid art form.

The revitalisation of Raranga as a valid art form can be attributed to mātauranga Raranga as a valid methodology and its dissemination by tohunga raranga (expert weaver) such as Dr Diggeress Te Kanawa and Te Aue Davis among others and their collective commitment to seeing this traditional art form preserved for all time including the role of the kairaranga in traditional times being recognised as valid in the contemporary world amongst our communities. In so doing, they worked to ensure that neither the role of the kairaranga nor the art-form itself are diminished to merely native 'folk-art' or a 'past-time' thus affecting the mana of the art (Puketapu-Hetet, 2000) and the place of mātauranga Māori within the cultural fabric of Aotearoa New Zealand.

### **The transmission of raranga, whatu muka and tukutuku as an ancient art-form and its relevance in the contemporary world**

Royal (2004) believes that there can be some confusion when using the term 'Mātauranga Māori' and he offers two views, or definitions. "A modern use of the term used as a tool in everyday discussion to refer to a body of knowledge...brought to these islands by Poynesian ancestors of present day Māori." (pp. 2) This is the first view and is described by Edwards (2012) as a sociological description. Edwards (2012) clarifies Royal's definition by going on to explain;

The tensions, adaptations and challenges that impacted on this knowledge to arrive at the present state. He highlights a 'theory of Mātauranga Māori' that is informed by a range of concepts and principles that can be considered as views on the nature of knowing and knowledge. This, he believes, forms the basis of an introduction of an epistemology of Mātauranga Māori (p. 102).

Royal (2004) describes this epistemological view of mātauranga Māori as “the term to denote a type or view of knowledge and its place in our experience of the world” (p. 2). In addition, Freire (1985) states, “there is no theoretical context if it is not in a dialectical unity with the concrete context” (pp. xxiii). The sustainability of raranga, whatu and tukutuku relies on the transmission of the practice and the underpinning theories of these forms. According to Puketapu-Hetet (2000);

Weaving is more than just a product of manual skills. From the simple **rourou** food basket to the prestigious **kahu kiwi**, weaving is endowed with the very essence of the spiritual values of Māori people. The ancient Polynesian belief is that the artist is a vehicle through whom the gods create (p. 2).

In te ao Māori, the act of learning is just as significant as what is being, or going to be, learnt and is underpinned by tikanga. (Ka'ai & Higgins, 2004; Mead, 2003) Therefore, the weaver as a teacher, has a pivotal role and responsibility in how and what is taught.

### **Te kawau mārō - a Māori pedagogy in the transmission of knowledge and the expression of mātauranga Raranga**

As a pedagogical model, Te kawau mārō focusses on strengthening relationships between teacher and learner. It builds on former studies of Māori pedagogy dating back to the 1990s such as Ka'ai and her Master of Philosophy in Education thesis, Te Hiringa taketake mai i te kohanga reo ki te kura. Ka'ai (1990) argues that Māori pedagogy is related to Māori cultural identity

and is couched in cultural concepts such as aroha, whanaungatanga, manaaki, wairua, whakapapa, tuakana/teina, reo and tikanga. Lambert (2012) reminds us of the importance of genealogical bonds and their role in the sharing of knowledge.

In order for this knowledge transmission to be successful, the connection with one's spirituality and therefore ancestors needs to be a strong connection. Johansen (154) supports this by saying to do the right thing is to follow the ancestors. There is a true continuity in the concept of ancestors, for this word unites in it all the generations which have set up and still set up the standards by which the kinship group lives. This connection with the ancestors is exemplified through the social network and societal codes and norms that have been established by the ancestors and to which Māori today still abide to. The intergenerational teaching and learning because of the interdependent nature of the Māori social network provides for a nurturing model for this knowledge transmission to occur (pp. 55).

Royal Tangaere (1997), adds to this “in the Māori world it is an acceptable practice for the learner to shift roles to become the teacher, and for the teacher to become the learner” (p. 50). This practice, known as ako, is a recognised Māori principle of teaching and learning. Literally meaning “to teach and to learn” (Bishop, 2008, p443), ako places the teacher and student/s together in the same space and place, in the ‘core’, of the knowledge transmission process. The role of the teacher becomes one of facilitator, creating co-operative learning contexts (Bishop, 2008; Hemara, 2000). Ako incorporates knowledge acquirement, processing and dissemination and also acknowledges not only the reciprocal nature of the learning process, but also recognises that all participants bring knowledge into the learning environment (Hemara, 2000, Keown, Parker, & Tiakiwai, 2005). Ako also acknowledges how new information and interpretations can grow out of collective learning opportunities (Alton-Lee, 2003). She adds that,

Tasks and classroom interactions provide scaffolds to facilitate student learning (the teacher provides whatever assistance diverse students need to enable them to engage in learning activities productively, for example, teacher use of prompts, questions, and appropriate resources including social resources) (p. 73).

This type of assistance is of particular interest to the researcher, as tukutuku is used as as a metaphor by Royal Tangaere (1997) to the scaffolding, or support process. “The woven staircase symbol addresses some of the drawbacks of the scaffolding metaphor (given the implicit notion of knowledge as a building)” (Alton-Lee, 2003, p. 74). Royal Tangaere (1997) discusses poutama as the symbol for seeking knowledge and each step in the pattern represents different aspects of learning and elaborates;

. . . that the poutama also represents learning as 'a process which involves a period of time for the task or activity to be understood' (p. 48). The 'scaffolding' metaphor carries with it a notion of knowledge as a building which is a static and highly structured image. The poutama metaphor does not give away the importance of structure in knowledge construction. However, the poutama symbol carries with it the notion of knowledge as an inter-related and accumulating stairway that in itself opens up opportunity (Ashton-Lee, 2003, p. 74).

This is reinforced by Bishop (1996) and Keown, Parker, & Tiakiwai (2005) who believe that as part of Māori development, ako is supported, validated, assessed and strengthened by other Māori principles. Following on from the tukutuku example by Royal Tangaere, language then, has a pivotal role in ako. Ka'ai (2004) asserts “the transmission of knowledge and the tikanga implicit must occur in the Māori language to ensure accurate transmission is sustained through succeeding generations” (pp. 209). Although she is referring to Māori language fluency and sustainability, this statement is also true for Mātauranga Raranga.

Raranga, whatu and tukutuku terms, such as those described in Chapters Two and Four, must continue to be used in a culturally appropriate way, otherwise “the knowledge acquired is neither clearly understood nor easily retained” (Lentfer, 2012, pp. 122).

### **The preservation and sustainability of raranga, whatu muka and tukutuku in the contemporary world**

There are theoretical and practical examples of how raranga, whatu and tukutuku are preserved and maintained in the contemporary world, which highlight their importance, not just to weavers or Māori, but to Aotearoa as a whole. The use of poutama by Royal Tangaere (1997) to convey the learning process; the use of the raranga term ‘whāriki’ by the Ministry of Education (1996) to describe the Early Childhood Curriculum, Te Whāriki; “The early childhood curriculum has been envisaged as a whāriki, or mat, woven from the principles, strands and goals defined in this document. The whāriki concept recognises the diversity of early childhood education in New Zealand.” (p. 11). The Tienga model by Ka’ai Mahuta (2010) and the kawau mārō model presented in this exegesis are exemplars of how Raranga theory can be actualised.

Museums and galleries hold an important place in the protection and continuation of Mātauranga Raranga. In March 2005, the exhibition, Toi Maori: The Eternal Thread, travelled New Zealand and parts of North America, to highlight and demonstrate Māori weaving. A publication regarding these and other works, called, *The Art of Maori Weaving*, was produced in 2007. A current exhibition at the Waikato Museum, “E Nga Uri Whakatupu”, celebrates the achievements of Dame Rangimarie Hetet and her daughter Diggeress Te Kanawa, “These remarkable women are acknowledged as New Zealand’s finest traditional Maaori [sic] weavers. Their generosity and passion for the revival of Maaori women’s arts gave new life to traditional Maaori weaving in Aotearoa”(Waikato Museum, 2014).

Although these types of exhibitions provide weavers with opportunities to share Raranga with all ages and cultures, they particularly provide other avenues for Māori who may not have opportunities to see these art forms. This answers the question Tapsell (2011) ask “how will descendants experience such tāonga if they have been raised beyond their elders ancestral marae communities and associated landscapes?” (p. 11)“. It is important that weavers have a relationship with museums, galleries and marae so that continuous opportunities for exposure can be presented.

### **Summary**

The revitalisation of raranga, whatu and tukutuku is dependant on how the theory and practice is transmitted. As Pihama (2001) outlines;

One cannot act fully without the other but that there is a process of constant reflection and reshaping as each part of the unity informs the other. Theory and practice are not closed entities and therefore, we in our practice and our theorising, need to be open to the possibilities that come with such a process of reflection (p. 87).

Māori give equal value to the notions of theory and practice. Māori also clearly differentiate and attach significance to the learning process, that is, what is being learnt, and the role of ako. Therefore, Māori pedagogy, is considered to be an integral part of this knowledge transfer and recognises the equally important roles of the teacher and the learner. Both teacher and learner bring experiences to the learning environment and are critical to the survival and practice of Mātauranga Raranga as a culturally rich process within a contemporary world located within the broader realm of Mātauranga Māori; an ancient body of knowledge as illustrated by Royal (2004). Mātauranga Raranga therefore, offers a culturally relevant teaching and learning practice; a distinctive Māori pedagogy that can be utilised in Māori contexts and spaces of learning.

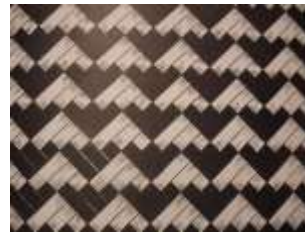


## Chapter Four: Niho Taniwha

### Introduction

Niho Taniwha is one of the few patterns used in all three aspects of Raranga. The pattern Niho Taniwha, is symbolic of oral narratives and traditions. Oral Narratives are an important characteristic of every culture as they bring people together and help to explain their collective world view regarding natural phenomenon or practice.

**Image 13: Niho taniwha**



(Pendergrast, 1984, pattern 94)

This chapter focusses on the artefact which comprises seven separate pieces which have been brought together to make a physical representation of the model Te kawau mārō. Design, through to construction is outlined, including the various tikanga observed during the entire process. Maintaining authenticity of taonga tuku iho, such as raranga, whatu and tukutuku in a modern world is a collective effort and this is discussed later in this chapter.

### **Explanation and Description of the artefact**

The most influencing factor underpinning the artefact, Te kawau mārō, is encapsulated by the title of this exegesis, ‘Ko te amorangi ki mua, ko te hāpai ō ki muri.’ This is a whakataukī (proverb). Whakataukī use metaphoric language and convey significant messages relevant to various aspects of Māori society. They also contribute to the revitalisation of the Māori language. “Proverbs are important to the revival of the Māori language – they carry flair, imagery and metaphor embodying the uniqueness of the language ”(Te Taura Whiri i te Reo Māori, 2014).

The late Wiremu Tawhai, a tohunga of Te Whānau-a-Apanui (an East coast tribe), provides a thorough explanation of this whakataukī,

Implicit in the proverb being used here is the understanding that before the journey was undertaken much preparation was put into place. Special people were named who were to lead the group on their journey – the tohunga, the people with expert skills. Included also in the preparations were the warriors, even though the event may have been a peace time event. The warriors, tohunga, rangatira and wāhine [sic] rangatira would be in front. Those were the kinds of people who comprised the ‘amorangi’. Analysing the word amorangi - amo is ‘to carry’ and rangi is the ‘sun/sky’. Literally then everything that the group holds precious under the heavens is carried by them. As the proverb says ‘Ko te amorangi ki mua’, with the purpose of their journey being highly significant to the mana of their group. In their midst would be the wāhine [sic] karanga for the times they may be needed to raise their voices in replies of welcome. Ko ngā [sic] tohunga whaikōrero [sic] for the time they may be needed to speak on behalf of the group. Ko ngā [sic] tohunga karakia, ko ngā [sic] tohunga tiaki i ngā [sic] tapu, ko ngā [sic] toa hei tiaki i ngā [sic] taha o te ope – that’s the ‘amorangi’ in action demonstrating the talent and strength of the group.

The second part of the proverb is ‘ko te hāpai ō ki muri’. This is significant because it speaks of the way the journey will be provisioned and thereby sustained. As the proverb suggests, ‘the carrier of the provisions and resources come behind’. Those who follow behind are as important as those who go ahead in the lead. Sustainability and

survival have much greater chances if the trip is organised in such a manner. What would they be carrying? They would be carrying all the food. They would be carrying the bedding. They would be carrying all of the requirements of those in front - the cloaks, the heirlooms, the koha. The 'ō' means 'those special provisions that are required' for the event to ensure the success of the hīkoi (New Zealand Teachers Council, 2012. p5).

It is clear that the described roles and responsibilities of the amorangi and the hāpai are interdependent and are of equal value, even though the actions of one group are not always seen. M. Beattie (personal communication, March, 11, 2014) agrees and adds that the whakataukī could be quickly translated as the front of the marae is sorted if the kitchen is working well.

Furthermore, she relates 'te hāpai ō ki muri' to the activities in the kitchen. As a weaver, the researcher considers herself to be an integral part of this world view captured by this whakataukī as described by Tawhai (2012), as an important role for a weaver, is to ensure the sustainability and survival of raranga, tukutuku and whatu as ancient art forms.

Kaipara, the wharekai (dining room) of the Auckland University of Technology (AUT) marae, Ngā Wai o Horotiu, has played a significant role in the development of this exegesis. The researcher has spent many days and nights in the wharekai learning, writing, sharing with her peers and having supervision hui (meetings). Consequently, It is a space which is held in high regard by the researcher.

**Image 14: Kaipara, AUT Marae**



(Te Ara Poutama, 2014)

In Kaipara, above the door to the kitchen, is a large area with a drop-down projector screen attached in the centre. As a weaver, the researcher knew that a large triangular work would suit the space and so she began to discuss with other weavers about how her creative project might work. The researcher kept two things in mind; the shape of the space and that the piece must incorporate raranga, whatu and tukutuku. The details of the artefact took two years to develop, and in that time the researcher harvested and prepared materials, such as the kākaho (stem of toetoe, used in tukutuku), which take months to dry and cure, ensuring that they did not rot the work. As the researcher began to develop her writing, the triangular shape was constantly in her thoughts. The model and artefact have influenced and informed each other, and it is like the ‘chicken or the egg’ scenario in relation to what comes first.

### Images 15, 16 & 17: Designing the work associated with the space



(Lentfer, 2014)

The researcher initially thought that she would place rectangular tukutuku inside a diamond shape, but discarded that thought as she really wanted to extend herself and her skills in this area. She could have used pegboard, a commonly used material with pre-drilled, uniformly spaced holes. It can be cut to any size or shape and would be suitable for this type of project. However, having participated in several large tukutuku projects, the researcher felt she was in a position to push the boundaries and could figure out how to create diamond shape tukutuku. She realised too, that this could include pushing the boundaries of tikanga tukutuku. Rectangular for a reason, tukutuku is bound down both long edges with a special stitch called tūmatakāhuki. This stitch binds the horizontal and vertical material together. This is done prior to any tui (the stitch) taking place. The researcher continued planning the entire artefact, leaving the construction of the three tukutuku pieces until last as it was only one aspect of the artefact which comprised of seven pieces.

Early in her studies, the researcher had purchased 180 metres of half rounds or slats and two packets of five roll masking tape packs (approximately 200 metres of tape.). The tape is used to keep the kākaho together after they are 'built'. A uniform width is required for tukutuku so that the stitches are of a similar size but, as kākāho thins out at the tip, the casings are used to thicken the thinner sections and the tape keeps it all together. Masking tape is best to use as it does not tear the kākaho. Care must be taken while handling kākaho as the casing can cut, and the weaver will not realise this until they wash their hands that they have fine paper cuts. This can also happen when harvesting. Kākaho is surrounded by long leaves that can cut in the same way, therefore weavers cover every part of themselves, including their face, when harvesting. The researcher had already assembled a lot of the other resources required for the artefact including kiekie (native vine with long weavable leaves), pīngao, black paint, workmate with vice, wood and bolts for tukutuku frame, variety of tools and access to harakeke. The researcher had to purchase the wood panelling and the picture framing timber that was used to frame the three tukutuku. Importantly, the researcher also had access to one other resource integral to the project; people.

One significant practice of tukutuku is that two people are required for particular sections. The initial set up of the kākaho and slats in the construction frame is one example. Another is tūmatakāhuki, which requires one person in the front and one at the back of the frame. This ensures the work is tight, even and level. Quality control of the work is also the role of others. They can pick up issues such as the pattern being out of kilter, or offer advice on colour or pattern placement. Keeping in mind that the artefact is primarily for the researchers Masters degree it, was at times a struggle for the researcher, as she wanted to do the majority of this work herself and work to the tikanga surrounding tukutuku. In speaking with some of her mentors about this

conflict, she was reminded of an important tikanga associated with Raranga and that is trusting in the process; if it is meant to work, then it will work.

The whakataukī “Ehara taku toa, he takitahi, he toa takitini; My strength is not that of a single warrior but that of many” (Mead & Grove, 2001, p24) reminds the researcher of the vital role that others have in her life, whether it is Raranga, study or work related. The researcher’s children in particular, experienced in tukutuku, kept the researcher on task, questioned some of her ideas and ‘new’ practices as well as providing practical support throughout the ‘making-process’ by cooking and cleaning. Friends and whānau came and went; two in particular, with no experience learnt how to tui. With tukutuku, a high level of trust is an important attribute to have as one cannot see what the other is doing. Patience is another attribute that is critical for those who are new to this work to embrace.

The artefact consists of seven sections and have been afforded the same names as in the model Te kawau mārō. The largest piece, Tapa, is an equilateral triangle, with each side measuring approximately two and a half metres. Consisting of two pieces of six millimetre wood panelling, it is covered in tapa, which has been glued, pattern side down. Patterns are time markers (Kulcher & Were, 2005) and the researcher wanted to give a sense of timelessness and connection to the Pacific to the artefact. Tapa is a barkcloth and is,

Arguably, the most famous and distinctive medium for Pacific fibre arts is barkcloth, a type of fibrous material deriving from the bark of the paper mulberry tree. Barkcloth, more commonly known as *tapa*, is found across the breadth of Polynesian as well as in some parts of Melanesia, including Papua New Guinea. In Tonga, Fiji and Samoa, the tradition of making barkcloth remains strong (Kulcher & Were, 2005. p 21).

Picture framing tape has been used underneath to reinforce the work ensuring the tapa is securely attached.

**Images 18, 19 & 20: Material preparation**



(Lentfer, 2014)

The three smaller triangular shapes are of equal size with each side measuring approximately 72 centimetres. They are also wood panelling, ranging in width from three to six millimetres, then painted with black acrylic paint on the front and sides. Raranga pieces have been woven and then attached at the back of the panelling with staples. The work is not locked off at the base or the top on all three pieces, giving the impression that the work is unfinished or could be added to. This is in line with the model, Te kawau mārō, which can be developed further. Small blocks of panelling are attached behind each shape for mounting. This will allow the flatter raranga work to stand out once it is all on the wall.



**Images 21, 22 & 23: Rito development**



(Lentfer, 2014)

The centre triangle, Rito, consists of a singular woven piece and the patterns applied are takitahi, takirua (over two, under two), takitoru (over three, under three) and karu o te whenua (eye of the land). The material is boiled kiekie and harakeke dyed black, with a whenu width of approximately five millimetres. Karu o te whenua is an acknowledgement of the late Dame Rangimarie Hetet (1892-1995), who has popularised this pattern. A tohunga of all aspects of Raranga, she taught people from a variety of cultures a range of weaving skills in order to protect these traditional art forms. As descendants of the same iwi, the researcher as a kairaranga, also acknowledges the role that Ngāti Maniapoto women have made in the revival and survival of raranga, whatu and tukutuku.

### Images 24, 25 & 26: Mātua Development



(Lentfer, 2014)

The two outside pieces are identical, each having two bands of weaving. The material is pīngao and kiekie, with the kiekie having been dyed black. The patterns used are takitahi and kōeaea (whitebait). The whenu width is between three and seven millimetres. A more natural look occurs when the whenu is not all the same width. The pīngao is short and tapers off more quickly. The kiekie, dyed black, appears dark brown. This is due to the type of dye used. This is a deliberate move on the part of the weaver. Again, this gives a more natural look, with the brown and yellow on the black piece of board, contrasting against the tapa and tukutuku.

### Images 27, 28 & 29: Tukutuku Development



(Lentfer, 2013)

Three framed diamond shaped tukutuku, measure approximately one and a half metres from the lowest point to the apex, and approximately 82 centimetres between the two closest points. Kākaho is used vertically, with 18 millimetre width half rounds laid horizontally (which have been painted black); kīkie and pīngao were the resources used to construct these. Each tukutuku was constructed in an upright, rectangular frame which was locked into a workbench with a vice.

### Images 30, 31 & 32: Design Aspects



(Lentfer, 2014)

There have been some practices not used before by the researcher/kairaranga that were applied in constructing these tukutuku. These arose due to some unique features required for this project. First, the diamond shape of the panels needed a different approach. This meant using another way to bind the kākaho and slats together instead of tūmatakāhuki, as this stitch could not be created on the required angle. Secondly, using tui to create letters. As tukutuku tells the history of the local people, the researcher felt it was important to acknowledge the Auckland University of Technology (AUT). The letters 'AUT' are frequently used to describe or refer to the University. The dilemma for the weaver however, was in the creation of the letters because normally patterns are used to inform and express Māori ideas in a symbolic form; and not actual words. This created an internal conflict for the researcher. However, after great deliberation, the researcher reconciled that it would be culturally safe to proceed down this track because the rationale behind her intentions was valid and she had not transgressed either the tikanga tukutuku

associated with her art form, or the art form itself. The practice of keeping the back or unseen side of tukutuku as tidy as the front was adhered to at all times.

It is usual to plan tukutuku on grid paper; marking out the patterns prior to creating the panel. This is to ensure the patterns are appropriate and of a suitable proportion. As mentioned previously, the researcher wanted to test her skills and push herself to new limits as a weaver. With that in mind, the third practice, not performed before, was creating tukutuku with no design put down on paper. The researcher's thoughts were of tūpuna, who created tukutuku without a documented design, modern measuring equipment, tape or frames. She applied this approach to the tukutuku, Ranga. Apprehensive at first, counting and recounting more than normal, the researcher became more confident. She attributes this to the pattern she chose. Poutama was chosen to acknowledge Te Ara Poutama; the Faculty of Māori and Indigenous Development at AUT. Poutama is quite a straight forward pattern; proportioning of the steps being the essential key. Only kiekie was used, as the researcher felt there was enough pīngao used in other pieces for contrast. Tuku was easier and quicker to construct as it is a reflection of Ranga.

**Images 33, 34 & 35: Ranga, Tuku and Wha[tu]**



(Lentfer, 2014)

The framing of the tukutuku was also a new experience for the researcher. Individual pieces like these are usually sent to someone who specialises in framing. However, the researcher wanted to finish these pieces herself. In hindsight, it is not something the researcher would do again in a hurry because of the investment of time; but she is pleased with the result. Aside from being heavy on the pocket and expensive, choosing the right wood, style and width of framing timber were things that the researcher had not considered before, and now has a deep appreciation and respect of that type of work. Painted black, the framing was angle cut and glued to the slats; all four points were then taped. Weights were placed on each tukutuku and were left overnight for the glue to set. The seven sections of the artefact required different types of care at different times during their construction.

**Table 1: Artefact care**

Section of Te kawau mārō	Prior to construction	During construction	Prior to hanging/placement	Hung/Placed
<b>Tapa</b>	Tapa cloth - kept rolled up, not folded; Woodboard – kept upright and dry.	Ensure gluing is done on a flat surface; Once tapa is glued to board, and taped, work to be kept flat and weighted until glue sets.	Kept flat or secured upright; Secure corners with cardboard so they don't dent; Ensure hooks or screws used for hanging can take weight of total artefact.	Checked periodically for peeling; Dusting with soft brush if required. For example, clearing away any cobwebs.
<b>Rito Mātua</b>	Kiekie, harakeke and pīngao – boiled and dyed material kept dry and hung in bundles until required; Woodboard – once painted, kept flat and dry.	Woven pieces to be slightly damp prior to attaching to woodboard, this allows for some stretch in the work without breakage.	Once completed, work to be kept dry, flat and weighted; Small, blocks of wood (painted black) are glued to centre underside of pieces and left to dry.	Checked periodically in : - the warmer months and dusted with soft brush if required. For example, clearing away any cobwebs; - the cooler months; particularly in winter, and wiped gently with a cloth to remove mould if required.

<p><b>Tuku</b> <b>Ranga</b> <b>Wha[tu]</b></p>	<p>Ensure painted slats and kākaho are completely dry; Prepared kiekie and pīngao are kept dry and hung in bundles until required; Ensure construction frame is secure in workbench vice.</p>	<p>Regularly check vice is tight; Kiekie and pīngao are kept wrapped in a damp towel or similar; Ensure adequate working space for two people; Check ceiling height so kākaho does not get bent or broken.</p>	<p>Completed panel can be carefully removed from construction frame and kept flat and dry; Painted framing timber is glued and viced on a flat surface.</p>	<p>Checked periodically in : - the warmer months and dusted with soft brush if required. For example, clearing away any cobwebs; - the cooler months; particularly in winter, and wiped gently with a cloth to remove mould if required</p>
<p><b>Note: Extra care is required when moving completed tukutuku (framed or unframed) as the work is very light and the kākaho can be easily crushed.</b></p>				

(Lentfer, 2014)



**Image 36:** Te kawau mārō



(Te Ipukarea, 2014)

## **Summary**

The design and creative process of the artefact, Te kawau mārō, has been a journey years in the making. Full of innovation and tradition, it is a koha (gift) to Te Kaipara to acknowledge the role the wharekai has played in the design and creative process of this exegesis, embodied in the title, 'Te amorangi ki mua, te hāpai ō ki muri'. Koha can also symbolise an expression of deep gratitude and affection and is a personal expression of one's gratitude. This will be discussed in more detail in Chapter Five.

## Chapter Five: Tūmatakāhuki

### Introduction

Tūmatakāhuki is a stitch used solely in the construction of tukutuku. Its purpose is to bind the horizontal and vertical materials together, ensuring the materials are aligned and secure, so that the rest of the work in the panel can begin.

**Image 37: Tūmatakāhuki**



(Lentfer, 2014)

In the context of this exegesis, tūmatakāhuki represents the essential role of the weaver in relation to the transmission of traditional knowledge and the survival of raranga, whatu and tukutuku in the contemporary world. As referred to in the previous chapter, kairaranga have a variety of roles in regards to knowledge transmission. Practices, as well as underpinning theories, are considered to be taonga (valuable objects) and according to Tapsell (2011),

Tāonga represent the art of relationship: past, present and future. From the earth to the heavens, from distant ancestors to those yet to be born, from a Pacific culture of exploration to deadly engagements with external threats; taonga epitomise all that is valued in being Maori, especially when (re) performed in marae-like contexts. Under such elder-controlled conditions, taonga focus all aspects of whakapapa—the universe as understood by tribal Maori—into a powerful identity, providing opportunities to celebrate poignant, history-changing moments in time. Such moments also remind us of past sacrifices made for those still to be born (pp. 49-50).

The importance of relationships and identity are an integral part of te ao Māori, and therefore, Mātauranga Raranga. The kairaranga has inherent obligations and responsibilities to tūpuna (ancestors) to ensure that all Raranga practices, processes, language, patterns and tikanga are transmitted or disseminated in ways that are tika (appropriate) and pono (true). Accountability is attached to every aspect of the kaitiakitanga (guardianship) of Mātauranga Raranga. This can often be seen as an overwhelming responsibility. However, the model Te kawau mārō can be used to assist the weaver, or prospective weaver, to frame their work and guide their learning in a culturally appropriate way that recognises the tikanga and knowledge contained within Mātauranga Raranga. The weaver must also be open to new and innovative ways to share Mātauranga Raranga.

The two tōhunga, Dr Diggeress Te Kanawa and Dame Rangimarie Hetet set the benchmark for the transmission of Mātauranga Raranga and they found innovative approaches to ensure the continuation of Raranga as taonga tuku iho. Their leadership in revitalising these art forms are part of the great legacy they have been left behind to inspire others who follow in their footsteps. Significant attributes include:

- They had a great ability to unite people;
- They guided people through all the necessary processes and practices involved in any particular project through to completion;
- They were not afraid to delegate and saw this as part of the mentoring process and succession planning;

- They recognized talents in people and took every opportunity to get them to take the lead on projects;
- They were repositories of tribal knowledge especially about marae and their histories within the rohe (district) as well as ancient knowledge pertaining to the art forms.

The researcher is privileged to have worked on projects with Dr Diggeress Te Kanawa. This experience inspired the researcher to push herself to always do better.

#### **Images 38, 39, 40: Innovative tradition**



(Te Ipukarea, 2014)

Christie (2014) described other characteristics pertaining to tohunga, namely, Hetet and Te Kanawa. She describes them as being inspirational and encouraging. Furthermore they support others to realise their potential and believe in themselves and what they are doing. Christie, who produced the korowai, *Te Puawaitanga* (See Image 2), is now teaching others to make muka korowai. Christie

expresses, “I love teaching whatu. I just want to teach anyone who wants to learn. That’s what Aunty Digger and her Mum did” (J. Christie, personal communication, 18 June, 2014).

The motivation behind the researcher undertaking a Master of Arts degree, and opting to do an exegesis complemented by an artefact, was to position raranga, whatu muka and tukutuku as traditional art forms that have significant relevance in the contemporary world. Furthermore, the researcher wanted to honour the life work of both Dr Diggeress Te Kanawa and Dame Rangimarie Hetet in taking bold steps to ensure these art forms live on within the Maniapoto rohe by positioning the role of Mātauranga Raranga as a critical pedagogy within the wider domain of Mātauranga Māori. It is hoped that both the exegesis and the artefact meet the benchmarks set by these tohunga raranga and the tikanga they adhered to.

### **The concept of ‘koha’**

Of significance is the cultural concept of koha (gift) which was manifested at the pōwhiri on 22nd August 2014 when the artefact was handed over to the Ruahine (elderly woman) of the marae, Ngā Wai o Horotiu at AUT. Originally the researcher thought that the hand over would occur privately. Referred to by Mead (2003) as a private koha, “there is a clear signal that the contribution is a one-way one.” (p.188). The thinking at the time was this would ensure that neither Te Ara Poutama or AUT would feel any obligation to reciprocate in the future, aside from accepting the artefact. The researcher did not want the possibility of influencing, unduly, her final mark. Mead (2003), however, is clear that “an important point to make about gift giving is that there is a tradition behind it, there are tikanga involved in the exchange and there are many precedents as models of proper ways of behaving” (p.181). One precedent important to weavers is set by Niwareka, who brought gifts to this world, including knowledge of tāniko (see Chapter One: Pātikitiki).

This reminded the researcher that a more public koha was in accordance with Mātauranga Raranga, “This form of gift giving is very public and is located within a ceremony” (Mead, 2003. p188). AUT policy (2012) states,

The general usage and contemporary application of the concept of Koha is as follows:

It is the offering and presentation of a gift or reward for some work or duty that has been performed by a person, party, group or organisation. It also incurs a mutual obligation

It involves the three entities the koha, the donor and the recipient. Certain duties and expectations are inherent in the koha concept. The main principle of the koha involves a mutual understanding between the donor and recipient. This in turn leads to an undertaking between the two parties. (This understanding and undertaking is often not written).

Finally, the notion of koha includes an obligation between both parties to adhere to certain procedures.

When a koha (gift or present) is offered or presented to a person, group or organisation implicit in the offering and receipt of the koha is the notion that at some later date (Time can be specified or is unspecified) some reciprocal arrangement will be made. It could be the return, or compensation of a koha.

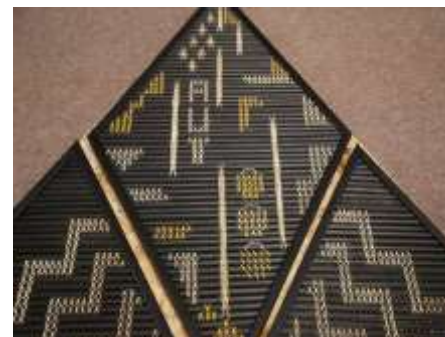
The koha may be offered in several ways:

- The donor gifts or makes a presentation (Return of favour, repayment is at the discretion of the recipient)
- The donor gifts or makes a presentation which involves the acceptance by the recipient of conditions verbal or otherwise that the recipient will return the favour in a manner or arrangement that is satisfactory to the donor.
- That there is some reciprocal gift to be offered by the recipient.
- That the donor at some later time will offer other additional gifts or presents.
- The recipient will be expected to return the favour or gift at some specified date (Auckland University of Technology, 2012).



As explained in Chapter Four, “koha, the giving away of items, as the contextual normative system” (Edwards, 2009. p.6) can be a personal expression of regard and deep gratitude. This was certainly true for the researcher when handing over the artefact, Te kawau mārō, as a koha. Surrounded and supported by whānau and friends, tears were shed when the karanga by the Ruahine of the marae filled Te Pūrengi, signifying the acceptance of the gift by AUT and the conclusion of the formalities.

**Images 41, 42, 43: Traditional innovation**



(Te Ipukarea, 2014)

The completion of this exegesis has been delayed seven months due to renovations at Ngā Wai o Horotiu Marae, which are still not complete. There have been time delays relating to the mounting of this work – the artefact was to be installed above the kitchen door in the dining room. Red tape appeared where previously there was none, and the researcher was beginning to believe that AUT did not want the koha that Te Ara Poutama graciously accepted in August, 2014.



The artefact should have been hung around mid-January, 2015 at the latest, however at the time of submission of this exegesis, continues to be stored safely away. This leaves the researcher distressed as ideally, images of te kawau mārō mounted in Kaipara would have been included in this exegesis. Although, it feels incomplete without these images, time dictates that this exegesis be submitted as is, so the researcher can no longer wait for the artefact to be hung. The researcher has a very supportive supervisor, who throughout this particular time, was exceptionally positive and encouraging. Tēnā rāwā atu koe, Prof.

The planned renovations for Te Kaipara puts the future of the artefact in question. This obviously makes the researcher feel anxious. If the artefact is to be removed and stored, the researcher would want to have the artefact returned to her rather than leaving this taonga to be cast aside.

**Image 44: Te kawau `mārō and whānau**



(Te Ipukarea, 2014)

## **Summary**

When considering the challenges of sustaining Raranga knowledge, values and practices, the impact of innovative learning and teaching methods has to be taken into account.

Contemporary Māori weavers have a wealth of art to show to the world. Their art derives from processes that evolve from a seed, the sowing of that seed, and nurturing its growth to maturation for harvesting. In the harvesting, our ancestors taught us well to maintain nature's bounty through conservation and sustainable use. Through these practices, our beautiful creations of art and culture are still being fashioned today from nature's offerings. Contemporary weavers also resourcefully blend modern materials with ancient concepts and techniques to achieve an innovative and exciting extension to the art of Māori weaving and plaiting (Evans & Ngarimu, 2005. p.11).

These ancient notions and methods, located within the realm of mātauranga Raranga, continue to be relevant today. Maintaining the authenticity of Raranga, a weaver is kaitiaki (custodian) of the materials (including harvesting practices), preparation processes, specific language, patterns as well as the tikanga contained within these aspects. A teacher, role model and learner, the weaver must also be open to new and innovative ways to share Mātauranga Raranga. Both the model and artefact, Te kawau mārō, are examples of how new frameworks can be utilised to depict ancient knowledge and as a pedagogical tool for the transmission of this knowledge in a contemporary world.

... we also have to consider the way the system should recognise the connectedness of all things that are implicit in the Māori world view, without turning it into myths or something of less than practical use in the world in which we live ... A way must be found, within the education system, to perpetuate morality as perceived through Māori eyes by recognising Māori knowledge, values, customs, and practices (Penetito, 1997, p57).

Ka'ai (2012) contributes to the argument that,

As Indigenous scholars, we need to inspire our children and communities and teach them to value their heritage and their cultural identity and resist being seduced and controlled by the dominant culture (p.10).

Ka'ai (2012) adds to this a statement by citing bell hooks (1994) to reflect her personal philosophy about Māori education,

. . . I add my voice to the collective call for renewal and rejuvenation in our teaching practices. Urging all of us to open our minds and hearts so that we can know beyond the boundaries of what is acceptable, so that we can think and rethink, so that we can create new visions. I celebrate teaching that enables transgressions – a movement against and beyond the boundaries. It is that movement which makes education the practice of freedom (hooks, 1994. p12).

The recognition of Mātauranga Raranga as a pedagogy for the transmission of Mātauranga Māori will contribute to the preservation and sustainability of Māori knowledge for future generations.

## Bibliography

- Auckland Museum. (1997). Tukutuku Tuturu Maori: Education Kit. Retrieved from <https://www.aucklandmuseum.com/getmedia/b7e43921-8963-4372-811c-c59257f58cc0/auckland-museum-education-kit-tukutuku-tuturu-maori>
- Auckland University of Technology (2012) Appendix A: Glossary: Retrieved from <http://www.aut.ac.nz/researchethics/guidelines-and-procedures/appendices/glossary-appendix-a>
- Alton-Lee, A. (2003) *Quality Teaching for Diverse Students in Schooling: Best Evidence Synthesis*. Wellington, New Zealand: Ministry of Education.
- Barlow, C. (1991). *Tikanga Whakaaro: Key concepts in Māori culture*. London: Oxford University.
- Baynes, K. (2003). *Pingao and Toetoe*. Auckland, New Zealand: Raupo Publishing (NZ) Ltd.
- Best, E. (1898). Art. LXV. The Art of the Whare Pora: Notes on the clothing of the Ancient Maori, their Knowledge of preparing, dyeing and weaving Various Fibres, together with some Account of Dress and Ornaments, and the Ancient Ceremonies and Superstitions of the Whare. *Transactions and proceedings of the Royal Society of New Zealand 1886-1961*, 31, 625-638. Retrieved from [http://rsnz.natlib.govt.nz/volume/rsnz\\_31/rsnz\\_31\\_00\\_008730.html](http://rsnz.natlib.govt.nz/volume/rsnz_31/rsnz_31_00_008730.html)
- Best, E. (1942) *The Maori, Volume 1*. Volume 5 of Memoirs of the Polynesian Society. Wellington, New Zealand: Polynesian Society.
- Best, E. (1995). *Maori Religion and Mythology being on account of the cosmogony, anthropogeny, religious beliefs and rites, magic and folklore of the Maori folk on New Zealand: Part 1*. Wellington: Museum of New Zealand Te Papa Tongarewa.

- Bishop, R. (2008). Te Kotahitanga: Kaupapa Maori in Mainstream Classrooms. In N. Denzin, Y. Lincoln, & L. Smith (Eds.), *Handbook of Critical and Indigenous Methodologies* (pp. 439-458). Thousand Oaks, California: Sage Publications.
- Edwards, S. (2009) Titiro whakamuri kia marama ai te wao nei : whakapapa epistemologies and Maniapoto Maori cultural identities. (unpublished doctoral thesis) Massey University, Palmerston North, New Zealand.
- Edwards, S (2012). Whakapapa Knowledge Methodology: (K)new Wisdoms for Transformative Indigenous Research. *Te Wānanga o Aotearoa WIPCE Conference Proceedings, Perú 2011*. (pp. 98-109) Te Awamutu, New Zealand: Te Wānanga o Aotearoa.
- Evans, M., & Ngarimu, R. (2005). *The art of Māori weaving*. Wellington, New Zealand: Huia Publishers.
- Freire, P. (1985). *The Politics of Education: Culture, Power and Liberation*. Massachusetts: Bergin & Garvey Publishers Inc.
- Freire, P. (1996). *Pedagogy of the oppressed*. London: Penguin Books Ltd
- Fullan, M, & Langworthy, M. (2014). *A Rich Seam: How New Pedagogies Find Deep Learning*. London: Pearson.
- Grey, S.G. (1961). *Polynesian mythology and ancient traditional history of told by their priests and chiefs*. Auckland, New Zealand: Whitcomb and Tombs Limited.
- Hemara, W. (2000). *Maori Pedagogies: A view from the literature*. Wellington, New Zealand: New Zealand Council of Education Research.
- Henare, M. (1998). Religious and ethical perspectives on globalization: An indigenous religious/cultural perspective. In J. A. Cammilleri, C. Muzaffar. (Eds). *Globalisation: The perspectives and experiences of the religious traditions of Asia Pacific*. (pp.75-89). Selangor, Malaysia: International Movement for a Just World.

- Henare, M. (2003). *The changing images of nineteenth century Māori society – from tribes to nations*. (unpublished doctoral thesis) Victoria University of Wellington, Wellington, New Zealand.
- Hill, J. (2010). *Te Kawau Mārō: The role of media in revitalising te reo Māori*. (unpublished Master of Arts thesis) The University of Waikato, Hamilton, New Zealand.
- Hiroa, T. R. (1921). Art. XLIX. Maori Decorative Art: No. 1, House-panels (Arapaki, Tuitui or Tukutuku) *Transactions and proceedings of the Royal Society of New Zealand 1886-1961*, 53, 452-470. Retrieved from [http://rsnz.natlib.govt.nz/volume/rsnz\\_53/rsnz\\_53\\_00\\_005280.html](http://rsnz.natlib.govt.nz/volume/rsnz_53/rsnz_53_00_005280.html)
- Hiroa, T. R. (1924). Evolution of Māori clothing. *The Journal of the Polynesian Society*, 33(129), 25-47.
- Hiroa, T. R (1950). *The Coming of the Maori*. Christchurch, New Zealand: Whitcombe and Tombs.
- hooks, bell (1994). *Teaching to Transgress. Education as the practice of freedom*, London: Routledge.
- Ihimaera, I., Adsett, S., & Whiting, C. (Eds.). (1996). *Mataora: The living face*. Auckland, New Zealand: David Bateman Ltd.
- Jones, P. & Biggs, B. (2004). *Nga Iwi o Tainui: The Traditional History of the Tainui people*. Auckland, New Zealand: Auckland University Press.
- Ka'ai, T. (1990). *Te Hiringa Taketake mai i te kohanga reo kit e kura: Maori Pedagogy Te Kohanga reo and the transistion to school*. (unpublished Master of Philosophy in Education thesis) University of Auckland, Auckland.
- Ka'ai, T. (2012). Empowering Voices, Transforming Communities. *Te Kaharoa*, 5(1), 1-11
- Ka'ai, T., & Higgins, R. (2004). Te ao Māori: Māori world-view. In T. Ka'ai, J. Moorfield, M. Reilly, & S. Mosley. (Eds.), *Ki te whaiiao: An introduction to Māori culture and society* (pp. 13-25). Auckland, New Zealand: Pearson Longman.

- Ka'ai, T., Moorfield, J., Reilly, M. & Mosley, S. (Eds.), *Ki te whaiao: An introduction to Māori culture and society* (pp. 13-25). Auckland, New Zealand: Pearson Longman.
- Ka'ai Mahuta, R. (2010). *He kupu tuku iho mo tenei reanga: A critical analysis of waiata and haka as commentaries and archives of Māori political history*. (unpublished doctoral thesis) Auckland University of Technology, Auckland, New Zealand.
- Keown, P., Parker, L., & Tiakiwai, S. (2005). *Values in the New Zealand Curriculum: A Literature Review on Values in the Curriculum*. Report to the Ministry of Education by the Wilf Malcolm Institute of Educational Research. School of Education: The University of Waikato.
- Kincheloe, J., & Semali, L. (Eds.). (1999). *What is Indigenous knowledge?: Voices from the academy*. Florence, Kentucky: Taylor & Francis.
- Kōrero Māori. (2014) Whakataukī – Proverbs. Retrieved from <http://www.korero.maori.nz/forlearners/proverbs.html>
- Kulcher, S., & Were, G. (2005). *Pacific Pattern*. London: Thames and Hudson Ltd, London.
- Lambert, J. (2012). 'Remebering what you never knew'- an indigenous masters' degree programme. *Te Wānanga o Aotearoa WIPCE Conference Proceedings, Perú 2011*. (pp. 52-57) Te Awamutu, New Zealand: Te Wānanga o Aotearoa.
- Lentfer, N. (2012). It's so easy, it's hard. *Te Wānanga o Aotearoa WIPCE Conference Proceedings, Perú 2011*. (pp. 121-125) Te Awamutu, New Zealand: Te Wānanga o Aotearoa.
- McRae, J. (1997). From Māori oral traditions in print. In P. Griffith, R. Harvey, & K. Maslen (Eds.), *Book and print in New Zealand: A guide to print culture in Aotearoa* (pp. 17-40). Wellington, New Zealand: Victoria University Press.
- McRae-Tarei, J. (2013) *The sustainability of tikanga practice and values within toi raranga*. ( unpublished Masters thesis) Auckland University of Technology, Auckland, New Zealand.



- Maniapoto Māori Trust Board. (2006). *Historical Background*. Retrieved from <http://www.maniapoto.iwi.nz/index.php/2012-06-04-22-54-55/history/17-history/33-historical-background>.
- Marsden, M. (1992). God, Man and universe: a Maori view.' In M. King (Ed.). *Te Ao hurihuri: aspects of Maoritanga*, (pp. 118–138). Auckland, New Zealand: Reed.
- Mead, H. (1996). Māori art restructured, reorganized, re-examined and reclaimed. *He Pukenga Kōrero*, 2(1), 1-7.
- Mead, H. (1968). *Te Whatu Taaniko: Taaniko weaving technique and tradition*. Auckland, New Zealand: Reed Books.
- Mead, H. (2003). *Tikanga Maori: living by Maori values*. Wellington, New Zealand: Huia Publishers, New Zealand.
- Mead, H. & Grove, N. (2003). *Ngā Pēpeha a ngā tīpuna*. Wellington, New Zealand: Victoria University Press.
- Ministry of Education. (1996) *Te Whāriki. He Whāriki Mātauranga mo ngā Mokopuna o Aotearoa: Early Childhood Curriculum*. Wellington, New Zealand: Learning Media Limited.
- Moorfield, J. (2011). *Te Aka Māori-English, English-Māori Dictionary and Index*. (3<sup>rd</sup> ed.). Auckland, New Zealand: Pearson.
- New Zealand Teachers Council. (2012) Te Hapai O - Induction and Mentoring in Maori-medium Settings. Retrieved from <http://www.teacherscouncil.govt.nz/sites/default/files/Te%20Hapai%20O%20-%20Induction%20and%20Mentoring%20in%20Maori-medium%20Settings%202012.pdf>
- Ngati Maniapoto Māori Pact Trust. (2013). Our Logo's. Retrieved from [http://www.maniapoto.org.nz/index.php?option=com\\_content&view=article&id=55&Itemid=54](http://www.maniapoto.org.nz/index.php?option=com_content&view=article&id=55&Itemid=54)
- Pendergrast, M. (1984). *Raranga Whakairo: Maori plaiting patterns*. Thames, New Zealand: Coromandel Press.
- Penetito, W. (1997). Research and context for a theory of Māori schooling. *McGill Journal of Education*, 37(1), 89-109

- Pere, R. (1997). *Te Wheke: A celebration of infinite wisdom*. (2<sup>nd</sup> ed.). New Zealand: Ao Ako Global Learning.
- Pewhairangi, N. (1992). Learning and tapu. In M. King (Ed.). *Te Ao hurihuri: aspects of Maoritanga*, (pp. 118–138). Auckland, New Zealand: Reed.
- Pihama, L (2001) *Tihei mauri ora Honouring our voices: Mana Wāhine as a kaupapa Māori theoretical framework*. (unpublished doctoral thesis) University of Auckland, Auckland, New Zealand.
- Pihama, L; Smith, K; Taki, M; Lee, J. (2004). *A Literature on Kaupapa Maori and Maori Education Pedagogy*. A report Prepared for ITP New Zealand. International Research Institute for Maori and Indigenous Education: Auckland.
- Pohatu, T (2003). Māori World-views: Source of Innovative Social Work Choice. Retrieved from [http://www.kaupapamaori.com/assets/maori\\_worldviews.pdf](http://www.kaupapamaori.com/assets/maori_worldviews.pdf)
- Puketapu-Hetet, E. (2000). *Maori Weaving with Erenora Puketapu-Hetet*. Auckland, New Zealand: Pearson Education New Zealand Limited.
- Reed, A. (2004) *Reed Book of Māori Myths*. Auckland, New Zealand: Reed Publishing (NZ)
- Royal, C. (2004). Mātauranga Māori and Museum Practice: A Discussion. Wellington, New Zealand: Te Papa National Services-Te Paerangi.
- Royal-Tangaere, A. (1997). Hy & A. Durie (Eds.), Māori human development learning theory. In P. Te Whaiati, M. McCarthy & A. Durie (Eds.), *Mai i Rangiātea: Māori wellbeing and development*. Auckland, New Zealand: Auckland University Press with Bridget Williams Books.
- Tapsell, P. (2011). *The Art of Taonga*. Wellington, New Zealand: Victoria University.
- Te Awekotuku, N. (2007). *Mau Moko: The world of Māori tattoo*. Auckland, New Zealand: Penguin.

- Te Kanawa, K. (2009). *Toi maramatanga: A visual Māori art expression of meaning*. (unpublished Masters thesis) Auckland University of Technology, Auckland, New Zealand.
- Te Ratana, R. (2012). *Ritual in the making*. (unpublished Masters thesis) Auckland University of Technology, Auckland, New Zealand.
- Te Taura Whiri I te Reo Māori. (2014) Whakataukī – Proverbs. Retrieved from <http://www.tetaurawhiri.govt.nz/learning-maori/tikanga-maori/whakatauki-en-nz/>
- Waikato Museum. (2014) *E Nga Uri Whakatipu*. Retrieved from <http://waikatomuseum.co.nz/exhibitions-and-events/view/2145882457>
- Wassilieff, M. (2013, July 9). Coastal shoreline – Sand dunes. *Te Ara-Encyclopedia of New Zealand*. Retrieved from <http://www.teara.govt.nz/en/photograph/4827/plants-of-the-sand-dunes>

## List of illustrations

Figure 1: Rangihau, J. (2004) *Māoritanga*. From Ka'ai, T., & Higgins, R. (2004). *Te ao Māori: Māori world-view*. In T. Ka'ai, J. Moorfield, M. Reilly, & S. Mosley. (Eds.), *Ki te whaiao: An introduction to Māori culture and society* (pp. 13-25). Auckland, New Zealand: Pearson Longman.

Figure 2: Ka'ai-Mahuta, R. (2010) *Tienga model*. From Ka'ai Mahuta, R. (2010). *He kupu tuku iho mo tenai reanga: A critical Analysis of waiata and haka as commentaries and archives of Māori political history*. (unpublished doctoral thesis) Auckland University of Technology, Auckland, New Zealand.

Figure 3: Lentfer, N. (2014) *Te kawau mārō model*

Image 1: Pendergrast, M. (1984) *Pātikitiki*. From Pendergrast, M. (1984). *Raranga Whakairo: Maori plaiting patterns*. Thames, New Zealand: Coromandel Press.

Image 2: Te Wānanga o Aotearoa (2010). *Te Puawaitanga, korowai with tāniko border*. Reprinted with permission.

Image 3: Rolfe, J. (2011) *Kākaho: Austroderia splendens*. [Online image] Retrieved from [http://www.nzpcn.org.nz/flora\\_images\\_large/Austroderia-splendens-02b.jpg](http://www.nzpcn.org.nz/flora_images_large/Austroderia-splendens-02b.jpg)

Image 4: Clay, T. (2014) *Pīngao*. Reprinted with permission.

Image 5: Lentfer, N. (2014) *Pā harakeke*.

Image 6: Pendergrast, M. (1984) *Takitahi*. From Pendergrast, M. (1984). *Raranga Whakairo: Maori plaiting patterns*. Thames, New Zealand: Coromandel Press.

Image 7: Te Ara Poutama. (2010) *Inside Te Pūrengi*, AUT Marae

Image 8: Te Wānanga o Aotearoa. (2009) *Te Puawaitanga, korowai with tāniko border*. Reprinted with permission.

Image 9: Lentfer, N. (2014) *Māwhitiwhiti in kete muka*

Image 10: Te Ara Poutama. (2014) *Whāriki*

Image 11: Lentfer, N. (2014) *Māwhitiwhiti (whatu)*

Image 12: Pendergrast, M. (1984) *Māwhitiwhiti (raranga)* From Pendergrast, M. (1984). *Raranga Whakairo: Maori plaiting patterns*. Thames, New Zealand: Coromandel Press.

Image 13: Pendergrast, M. (1984) *Niho taniwha*. From Pendergrast, M. (1984). *Raranga Whakairo: Maori plaiting patterns*. Thames, New Zealand: Coromandel Press.

Image 14: Te Ara Poutama. (2014). *Kaipara*, AUT Marae.

Image 15: Lentfer, N. (2014) *Designing the work associated with the space*.

Image 16: Lentfer, N. (2014) *Designing the work associated with the space*.

Image 17: Lentfer, N. (2014) *Designing the work associated with the space*.

Image 18: Lentfer, N. (2014) *Material preparation*

Image 19: Lentfer, N. (2014) *Material preparation*

Image 20: Lentfer, N. (2014) *Material preparation*

Image 21: Lentfer, N. (2014) *Rito development*

Image 22: Lentfer, N. (2014) *Rito development*

Image 23: Lentfer, N. (2014) *Rito development*

Image 24: Lentfer, N. (2014) *Mātua development*

Image 25: Lentfer, N. (2014) *Mātua development*

Image 26: Lentfer, N. (2014) *Mātua development*

Image 27: Lentfer, N. (2014) *Tukutuku development*

Image 28: Lentfer, N. (2014) *Tukutuku development*

Image 29: Lentfer, N. (2014) *Tukutuku development*

Image 30: Lentfer, N. (2014) *Design aspects*

Image 31: Lentfer, N. (2014) *Design aspects*

Image 32: Lentfer, N. (2014) *Design aspects*

Image 33: Lentfer, N. (2014) *Ranga*

Image 34: Lentfer, N. (2014) *Tuku*

Image 35: Lentfer, N. (2014) *Wha[tu]*

Image 36: Te Ipukarea. (2014) *Te kawau mārō*

Image 37: Lentfer, N. (2014) *Tūmatakāhuki*

Image 38: Te Ipukarea. (2014) *Innovative tradition*

Image 39: Te Ipukarea. (2014) *Innovative tradition*

Image 40: Te Ipukarea. (2014) *Innovative tradition*

Image 41: Te Ipukarea. (2014) *Traditional innovation*

Image 42: Te Ipukarea. (2014) *Traditional innovation*

Image 43: Te Ipukarea. (2014) *Traditional innovation*

Image 44: Te Ipukarea (2014) *Te kawau mārō and whānau*

## **List of tables**

Table 1: Te kawau mārō: A Māori pedagogy emanating from mātauranga Māori and mātauranga Raranga

Table 2: Artefact care

## Glossary

Ariki	Chief
Atua	Supernatural being
Ako	To teach and/or to learn
Aroha	Compassion
Awhi rito	leaves on either side of thr rito
Haka	Form of dance
Harakeke	New Zealand flax <i>Phormium tenax</i>
Hāpai ō	War party
Hapū	Sub-tribe
Hui	Meetings
Iwi	Tribe
Kahukiwi	Kiwi feather cloak
Kairaranga	Weaver
Kaitaka	A highly prized cloak made of flax fibre with a tāniko ornamental border
Kaitiaki	Custodian
Kaitiakitanga	Guardianship



Karakia	Ritual chants
Kākaho	Stem of toetoe used in tukutuku
Kākahu	Various forms of clothing
Kete	Woven basket
Kiekie	Native vine with weavable leaves
Koha	Gift
Korowai	Cloak
Kōwhaiwhai	Painted rafters
Kuta	A weaving material
Mana	Prestige, authority
Manaaki	Give hospitality to
Mātauranga Māori	Māori knowledge
Mātauranga Raranga	Knowledge encompassed in raranga, whatu and tukutuku.
Matua	Parent
Mātua	Parents; leaves on each side of the centre shoot of harakeke
Mauri	Life force
Māwhitwhiti	A weaving pattern
Moko	Māori tattoo
Ngā tukemata o Tāne	The eyebrows of Tāne (also known as Pīngao)
Ngau	Bite

Niho taniwha	A weaving pattern
Ope tauā	War party
Papatuanuku [sic]	Earth mother
Pātiki	Flounder or sole
Pātikitiki	Flounder shaped pattern
Pīngao	A weaving material
Pono	True
Poutama	A weaving pattern
Ranginui	Sky father
Raranga	To weave; traditional Māori art forms of weaving
Raranga whakairo	Raranga patterns
Rau	Blade
Rau harakeke	Long blade-like leaf
Reo	Language
Rito	Centre shoot, undeveloped leaves of harakeke
Rohe	District
Rourou	Food basket
Takirua	Over two, under two
Takitahi	Over one, under one
Takitoru	Over three, under three

Tāne	An atua
Tangaroa	An atua
Tāniko	To finger weave, border for cloaks
Taonga	Valuable object
Taonga tuku iho	Something handed down
Tapu	Sacredness
Tauira	Student
Te aho tapu	First line of tāniko
Te ao Māori	Māori world
Teina	Junior relative of the same sex
Te Kawau Mārō	Battle formation
Te Kete Aronui	One of the three baskets of knowledge
Te Tairāwhiti	East coast of the North Island
Te Whānau a Apanui	An East coast tribe
Te Whare Pora	The House of Weaving
Tienga	Finely woven whāriki
Tika	Appropriate
Tikanga	Custom, practice
Tikanga Māori	Māori custom
Toa	Warriors

Tohunga	Expert, authority
Tohunga Raranga	Expert weaver
Tohunga Whakairo	Expert Carver
Tuakana	Senior relative of the same sex
Tūpuna	Ancestors
Tūrehu	Fairy woman
Tukutuku	Lattice-work
Tui	The stitch
Tūmatakāhuki	Binding stitch
Uhi	Chisel
Waiata	Song
Wairua	Spirit, soul
Whakamata	First line of tāniko
Whakapapa	Genealogy; arrangement of whenu
Whakataukī	Proverb
Whānau	Family
Whare	House
Wharekai	Dining room
Wharenui	Meeting house
Whakairo	Carving

Whāriki

Whanaungatanga

Whatu

Whatu muka

Whenu

Mat

Relationship

Finger weaving

Fibre weaving

Weaving strips