‘te ārai ō inamata’

unveiling the kii

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Abstract

The vessel known as a '*kii*' is the focus for this research. Preceding the arrival of our ancestors from the Pacific, the kii was used as a vessel to transport the eggs belonging to the flightless bird known as the moa, which existed around 1300AD. The kii doubled as an exercise implemented by warriors, for muscle toning and strengthening in preparation for battle. This same vessel was also used as a weapon or hunting tool via the insertion of kōhatu.

It is because of this mātauranga that I became interested in the components and construction of the vessel. More importantly, there is little known regarding the kii, and as such, this study has involved an investigation into its creation in order to further develop rangahau that is not yet resourced. Consequently, the absence of relevant data has been quite challenging at times, which has forced an alternative approach to this topic to ascertain the potential and presence of raranga methods applied to the kii. However, a brief disengagement from the main focus (the vessel) was necessary to explore other possibilities and gather evidence of its existence, before venturing back to the initial point of origin.

The lens of mātauranga demands rangahau that authenticate practical developments, which is a major contributor to the findings of this rangahau. While this study has uncovered several promising findings, there are still many aspects of the vessel waiting to be discovered by future researchers that will shed more light on the past.

The findings from this investigation also contribute to our overall understanding of creations that use whatu, whiri and raranga techniques, which have possibly evolved from the origins of the kii and its narratives. This latter point reflects both my own experience as a weaver and an overall hypothesis that the findings of this study support. In other words, the vessel, as it is understood in the context of this research, continues to be evident in contemporary art forms such as the poi. Hence, the material exhibited in this thesis has direct links to the vessel and has in turn inspired my practice as a kaiwhatu and kairaranga.

Essentially, the research discussed in this exegesis highlights the origin of the vessel, how it was constructed and used. Furthermore, this new knowledge adds to the information readily available for future generations, who wish to continue the search for

past knowledge regarding whakapapa that enriches contemporary understandings of Te Ao Māori.

Acknowledgements

First and foremost, I especially wish to acknowledge my hoa rangatira *Brian Ngaia*, for his unwavering support of those spaces for study year after year, keeping the home fires burning, and a hot meal to return home to.

I also wish to acknowledge the many wahine who have inspired my passion during my development years as a practitioner of raranga. Their skills and knowledge shared are priceless gems that have continued to influence my practice to this day. I thank them for their words of wisdom that have enriched my life and become my main philosophies within my practice.

"Always give back to the plant, don't just take what you want. Clean the plant first, then sort out what you can use, even if it's just one whenu, that is your koha back to the plant". Hohaia, K. (1990)[1]

"Raranga is meant to be an enjoyable experience, it only becomes tapu because people make it that way, when it is no longer enjoyable, something has gone wrong and needs to change". Franks, M. (1992)[2]

"Finish your piece in such a way, that the beginning and ending cannot be found, and always tidy up your mahi". Kahu, K. (2006)[3]

Finally, these two phrases from a prestigious kuia,

"too much talk, not enough mahi", translated to mean *"If the mouths moving, the hands aren't",* and secondly *"If you have an idea give it a go, it will either work or not, you won't know unless you try".* Te Kanawa, D. (2009)[4]

Acknowledgement is also given to experienced artists Maureen Lander & Tracey Krumm, for their support and allowing me permission to use images of their works and

[1] Kataraina Hohaia, Greek/Irish. taught me how to harvest correctly, and raranga a pikau (back-pack).
[2] Kui Milly Franks, Ngapuhi. Taught me how to raranga my first kete whiri.
[3] Kim Kahu, Ngaruahine. Kaiako raranga who taught me for 2 years.
[4] Kui Diggeress Te Kanawa. Maniapoto. Who I had the honour of spending a short time with during her latter years.

any text found for the purpose of my study. Their works have played an influential role in the final installation created.

Finally, I wish to acknowledge Namoni Huata[5], who was directly responsible for planting the seed of enquiry, resulting in this journey. It was because of an interview observed in 2012 that the vessel at the core of this enquiry became known to me, sparking a fascination and passion to pursue this rangahau.

Because of all these beautiful souls, I was inspired to compose this whakatauākī that summarises my journey to date, and encapsulates the kaupapa for this rangahau;

> *"The truth will be revealed to those who have the courage to venture beyond the veils of their own minds".* Ngaia, J.L (2015)

He mihi atu ki a koutou katoa.

[5] Author of 'The Rythm and Life of Poi'.

Mihi i te taha o toku Papa

Taranaki te mounga tītōhia

Waitotoroa te toto o te whenua

Kurahaupo te waka o ngā tupuna

Taranaki nui tonu te tangata

Ngāti Haupoto me Ngāti Moeahu ngā hapū

Parihaka te papakainga o te tangata whenua

Kei Ngāmotu e noho ana ahau inaianei

Joanne Ngaia taku ingoa

No reira

Tēnā koutou katoa

Figure 1: Mounga Taranaki

Note: Source: Ngaia, J. personal collection (2020)

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Foreword

The present is constantly influenced by the past. Historical knowledge of what was, what is, and what could be, are inspirational to my practice. Limited information regarding the vessel known as a kii, motivates the desire to create a resource for future researchers, exposing them to the experiences of our Tupuna Māori.

Reconstruction of the transportive vessel, the kii, is the main objective of this study. Also, narratives and whakapapa are key components to capturing the knowledge required to achieve this goal. It is important to note that the narratives of Ngamoni Huata and Daisy Hemana are what has inspired this kaupapa, their kōrero o neherā is at the core of this rangahau.

Traditional materials influenced by traditional and contemporary applications will be used to test the theory of the vessel's sustainability, durability and strength. This report attempts to show (a) a whakapapa for the kii, (b) the functions of the vessel, (c) its transformation from one useful vessel to another, (d) offer a possibility of what this could have looked like, (e) the methods or techniques applied within its construction, and (f) what material was best suited for the task.

This exhibition report also focuses on the body of work exhibited at 'Te Korowai ō Ngaruahine Trust[6].' Aptly named *'te ārai ō inamata',* the exhibited piece evolved as a result of a range of experimental representations of the 'kii'. Deconstruction of the kii revealed the components incorporated within this installation; an application of traditional and contemporary materials complimented with techniques known and new to the researcher, contributed to the final work exhibited.

This introduction has provided a brief discussion that has highlighted the significance of narratives and whakapapa to our Tupuna Māori, the relevance of how this links to the kii, and how that is evident today. The following chapters in this exegesis are outlined below.

Chapter outline

Chapter one continues to discuss narratives and whakapapa linked to Tupuna Māori, as well as the methods used to record these korero. Poi is one method of recording that is

[6] Iwi Office, High Street, Te Hawera, South Taranaki, from 25th Nov to 20th Dec 2019.

briefly discussed. Further dialogue gathered from Huata and Hemana describe how the vessel was used. This chapter also highlights the challenges presented due to the limited dialogue of the ‘kii’, and the reliance on mātauranga to determine a whakapapa for the vessel.

Chapter two sets out to validate the claims Huata and Hemana make of the vessel’s functions. This chapter discusses the waves of migration and the periods approximating the arrival of the early Māori. It also provides an examination of the tools used in past research to evidence the existence of the moa, their eggs and the importance of this to the reconstruction of the kii.

Chapter three examines vessels, techniques and materials best suited for the task of reconstruction, to determine the best responses to the questions at the core of this enquiry, such as what might the vessel have looked like, how might it have been constructed, and what material would best suit the practicality and functions of the ‘kii’?

Chapter four explores the trials and experiments undertaken to reconstruct the ‘kii’. This chapter demonstrates the function of the kii as a transporter of the moa egg, and proceeds to explore the kii toa or poi toa, described by both Huata and Hemana, as exercise implements.

Finally, Chapter five details the development of *‘te ārai ō inamata’*, the inspiration behind the artforms and the artists themselves, as well as the final installation. This chapter concludes with a reflective response to the installation, and ideas for future evolvement as a practitioner of mahi toi.

Chapter 1 Narratives and Whakapapa

Introduction

Historical knowledge of past events can be heard in waiata, pūrākau or kōrero o neherā (*oral narratives of ancient times*). Often there are variations, depending on the geographical location of the orator. The creation of life, for instance between Papatūānuku and Ranginui, is a prime example of such narratives. The Tupuna Māori believed that through their union begat all living creatures and plant life, including the birth of mankind, a belief still recognised in these modern times.

Māori perceive of everything as being linked in some way, interwoven into a kōrero of their own. Raranga is one way of weaving together kōrero, a tool or way to preserve areas of history, this is what influences my own practise as a kairaranga.

Our Tupuna Māori opted to use various methods to record significant events through toi Māori (*Māori arts*) such as, whakairo (*carvings*), tukutuku (*lattice panels*), raranga whakairo (*woven patterns*), tāniko (*patterned finger twinning*) and taa moko (*skin markings*), which represents examples of methods still practised today. Patterns used in toi Māori have similarities and differences, it is the interpretation of the artist that records the kōrero as they perceive it, or as guided by their Tipuna.

Here in Taranaki for instance, specifically Parihaka, we are renowned for having recorded much of our history through poi and incantations or pao. The poi is performed to a specific beat as the words are recited, and when the two lose their rhythm, this is indicative that a different kupu has been introduced.[7] It is because of this technique that the history of past events at Parihaka have remained unforgettable. Memories of our Nannies, Aunties and whanaunga enter my thoughts as I write this. The Nannies were stern and strict when reciting the kupu, and in their instruction for the rhythm or pace of the beat to the drummer.

[7] Personal communication from Dr Ruakere Hond for a wananga noho at Te Raukura o Te Paepae, 2017, for my raranga tauira, who were on a journey of learning the history and significance of poi to Taranaki and Parihaka, whilst also learning how to make traditional poi with traditional materials and techniques. One of my favourite topics to teach. Ruakere is our Historian, a kaitiaki of knowledge, well respected and admired. He founded ataarangi, a form of teaching the reo, in particularly the Taranaki mita.

The topic of the poi has papers already researched in-depth by others, and is not the purpose of this report (ref: Karyn Paringitai[8] 2004). However, as I was about to discover, what I found while engaged in this research offered another perspective to the origins of the poi; another whakapapa through narratives.

Narrative

A narrative is a spoken or written account of connected events; a story, a tale, or a description of history.[9] Hence, narratives recite whakapapa in some shape or form and it is because of oral narrative records that the kii first came to my attention.

While watching a series called 'Te Irikura'[10], an interview with Ngamoni Huata captured my attention. She was demonstrating how to harvest and prepare raupo to construct traditional poi. I was intrigued as this was an area of interest to me, and I took notes on this process with the intention to practice at a later date. However, what really captured my full attention was the narrative she shared from her tupuna, regarding a vessel called a '*kii*', how it was used in the past, and its transformation into becoming the poi as we know it today.[11]

Huata's narrative referred to the kii as being a woven vessel used to transport moa eggs. It was described as having one or two kii attached to a short taura, either hung over the shoulder or around the neck. When not in use for this purpose, stones would be placed inside the vessel, which was attached to a foot long taura, transforming it into an exercise implement used by Warriors for muscle toning and strengthening in preparation for battle. This made perfect sense to me, however, I had never heard of this vessel in all my years as a weaver, and this was my first indication to the existence of the kii.

I was so enthused by this kōrero, that I made it my mission to find more information surrounding this vessel and its uses. In my search, I came across a short article by Christine Hemana[12] who also describes the kii as being used for the transportation of the moa egg, according to the 'oure kōrero' of her tribe.[13] In her

[8] Thesis, Poia mai taku poi, Unearthing the knowledge of the past. A critical review of written literature on the poi in New Zealand and the Pacific

[9] Online Oxford Dictionary

[10] An artist's interview on the Māori Television channel. Viewed on Sunday the 28th October 2012

[11] An example of Narratives referring to a whakapapa that differs from one geographical location to another. In this instance, a whakapapa to the beginnings of the poi.

[12] A History of Poi in New Zealand. 2003

[13] Ngati Whatua. The term 'oure' was used by Hemana in her kōrero.

description, she refers to it as a '*flax made bag',* attached to a short taura. When the fighting warriors used it for training, they would place a large stone inside the vessel, and swing it around to make the arms and wrists both strong and supple. This exercise was also used to test their reactions, which I would imagine took great concentration on each movement. But then, when warriors (non-fighting) and boys used it for training, extra material was attached to extend the length of the taura. Here, no explanation was provided as to why this was necessary. Therefore, I assume this was to attain a wider birth so as to reduce the possibility of injury for the inexperienced user.

Also, according to Hemana, when the moa became extinct, there was no further use for the kii in its current state, so it was just used for pastime games and training, stuffed with light materials, such as dog fur, feathers or fibres from plants. This then changed over time to a modern fibre replacing the contents. Hemana then proceeds to describe the kii as a '*training kii*' or '*kii toa*', then eventually taking on another name '*poi toa*'. From here, the kōrero extends to describe in more detail the transformation of the kii to becoming poi as we know it today.

To date, this is the only kōrero I have been able to source that refers to the vessel at the core of this investigation, the kii. Both narratives from Huata and Hemana have similarities and differences, however, the key components that link them are, the vessel itself, its uses, descriptions, and their transformations. Also, both narratives have recorded a whakapapa.

Whakapapa

Everything has a whakapapa, a beginning that can be tracked back through time, a genealogy, genealogical table, lineage, or descent.[14] Narration is a form of how whakapapa is recorded, such as those mentioned in the previous section. With this in mind, the kii also has a whakapapa, as do the components used in its construction. When looking at the use of the kii as being a transporter of moa eggs, it is fair to state that this is a point of origin where my rangahau will begin.

Firstly, it is the intention of this study to examine all possible sources to unveil the mystery surrounding this vessel. The moa predates the 'Great Heke' or migration from the Pacific, so it seems logical to begin my rangahau here. Furthermore, there are

[14] Online Te Aka Māori Dictionary

recorded narratives of how our Tupuna arrived in Aotearoa, a whakapapa of their journey, why they embarked in search of new lands and what they brought with them. Even though these narratives have variation, one constant is that the Tupuna Māori eventually settled and occupied this land of Aotearoa. This and other complexities concerning these waves of migration are discussed further in the following detail, alongside links to relevant literature.

Chapter 2 Literature Review

Introduction

Both narratives by Huata (2012) and Hemana (2012) refer to the kii as being active during the period of the moa. Earlier researchers on the topic of the moa have provided evidence of their form, size, areas of occupation, diet and demise. Other authors such as Hiroa (1974) discuss aspects of migration that are still unknown. However, one fact remains clear, that is, our Tupuna Māori co-existed for a significant period of time with these birds, which continues to be discussed throughout this chapter.

Migration from the Pacific

There are many versions on the topic of Pacific migration and one can confidently say without prejudice that this is a study all of its own, which has already been thoroughly investigated by many early researchers and historians such as Buck (1950) who approximates the date of 'the Great Migration' to be within 1350 A.D.

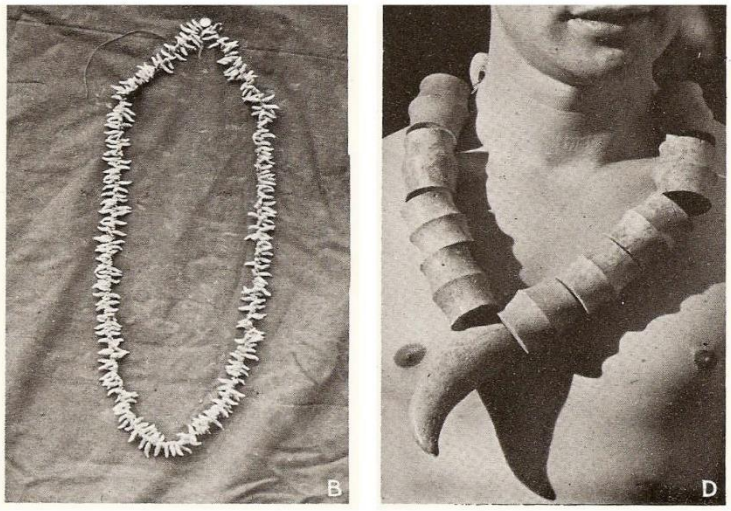
A hypothetical theory offered by Duff (1977) on the topic of the 'great migration', suggests two waves dispersed to the new land, rather than the one. He claims the waves originated from two inter group relationships between Samoa and the Society Islands, as well as Melanesia and Fiji.[15] Howe (2006) also supports Duff's claim that Māori culture existed as an ancient Polynesian community that had Mediterranean influences from different waves.

Evidence used to legitimate these claims were their comparative study of adzes, other implements, personal ornaments and their similarities to certain Islands of the Pacific. One such item is a moa bone necklace[16] found during an excavation in Marlborough during 1959 to 1964. It was noted that the style resembled that of the eastern Polynesian groups. Skinner (1942) also submitted extensive notes on his comparison with fishhooks and parts of Polynesia.

[15] Both referring to their home of origin to be Hawaii Ki.

[16] Currently held at the Canterbury Museum in Christchurch. It was later to be discovered that this among other necklaces in fact came from an ancient burial ground, one of the oldest ever found.

Figure 2: Necklace made from hollow moa bones. Taonga and Tupuna Part 1



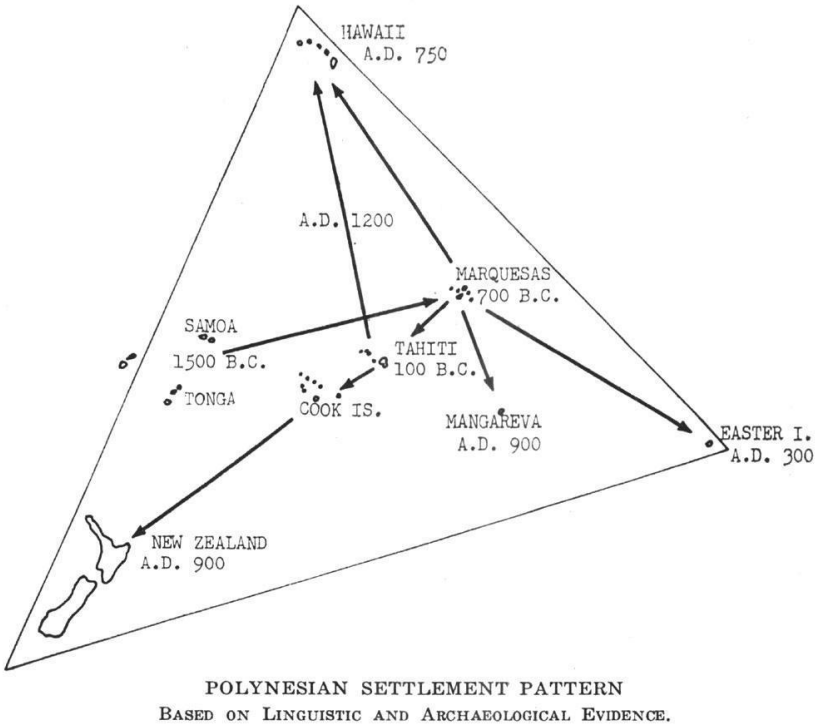
Two of the taonga found by Jim Eyles in the second grave he discovered in 1942. On the left is a necklace made of porpoise teeth. The other, massive, necklace is made from 11 "reels" of hollow moa bone and a Sperm whale tooth.

***Note**:* Source: Wairau Bar Blog, 2009.

According to an archaeological discovery[17], evidence was found that claimed New Zealand was in fact settled from the Society Islands. The discovery was made on the Island Maupiti, which consisted of ornaments, adzes and fishhooks found in a burial site. These same styles of implements (as shown in Figure 2) were identified as specialized forms and later discovered in other archaeological finds in the South Island (Wairau) in relation to the 'Moa hunter' period (*further discussed later*). Also, a radio-carbon date for a possible early settlement places Polynesian occupation of New Zealand to be around A.D. 900 – 1000, as indicated in the following image.

[17] presented at the Tenth Pacific Science Congress, Honolulu, 1961

Figure 3: Polynesian Settlement Pattern based on Linguistic and Archaeological Evidence



Note. Source: Journal of the Polynesian Society (1961)

Researchers have debated the suggestion that the occupants of these earlier waves were in fact the Moa hunter's pre the 1350 fleet. This suggestion challenges the earlier works of both Smith (1915) and Best (1915), whose theories suggested there was no scientific proof to substantiate any claim to the existence of any pre-fleet occupation. What was later made apparent as a result of another claim made by Best (1924), is that there was no other occupation of any group other than that of the Polynesians in New Zealand prior to the main migration. This in turn supports Māori as the primary occupants prior to Europeanism.

The Time of The Moa Hunters

Māori cosmological narratives acknowledge Kupe as being the first Polynesian to visit these lands, and it is noted in folklore and song that he encountered and killed a moa[18]. It has been estimated that this visit would have been around 950 A.D. Northern tribes can track their whakapapa back to Kupe, which would then support one wave of migration pre-1350AD.

[18] Personal communication with Dr Dennis Ngawhare 2018.

Following this encounter was the arrival of Toi some 200 years later (1150 A.D.), which then supports a second wave. Based on these theories and oral histories, there is reason to believe that there were three waves. Hence, this evidence suggests that a language already existed pre the great fleet, so too did the moa hunter period, which is also supported by the evidence discussed earlier in the '*Migration'* section.

Hiroa (1974)[19] also speaks of three settlement periods. The first suggestion is that descendants of the *'Maui Nation'* were the first occupiers prior to the arrival of Kupe. This would corroborate an existing language, which is also supported by Emory (1963), who discusses similarities and differences in dialect. The first wave is in reference to the moa hunters, Hiroa suggests that the origins of the name *'moa'* is derived from domesticated fowls found throughout Polynesia, the homelands of the earlier settlers (pre-fleet). However, during each wave of migration, these domestic fowls were not transported to these lands as the 'kunekune' (*native pigs*) and the 'kurī' (*native dog*) were.

The second wave[20] consisted of two expeditions of 'Toi', and 'Whatonga', both of which make no mention to the existence of the 'moa'. Here, Hiroa theorized that by the second fleet, the moa had been exterminated by the first occupiers. However, through the intervention of science, it has been revealed that moa dwelled upon these lands during all three waves and beyond, into the 14^{th} – 15^{th} century.

Science and the moa

Since the 1800s, there have been conflicting estimates of the moa population. For example, Worthy (2010) provides the locations of each family group of moa as to where he believed them to have populated on both the North and the South Islands. In his study, there are 9 different species of moa, which drastically undermined the earlier count by Walter Rothschild, who listed 38 species in 1907, and naturalist Richard Owen[21], who first introduced the classification of moa to the Western science community in 1840, where he had named 13 species.

Through DNA testing, scientists were able to determine the different species. This method of research also revealed a theory that the females of these species were the larger

[19] The coming of the Māori, The moa hunters.
[20] Which in theory should be the third wave if Kupe was the second, and the Maui Nation was the first.
[21] Founder of London's Natural History Museum.

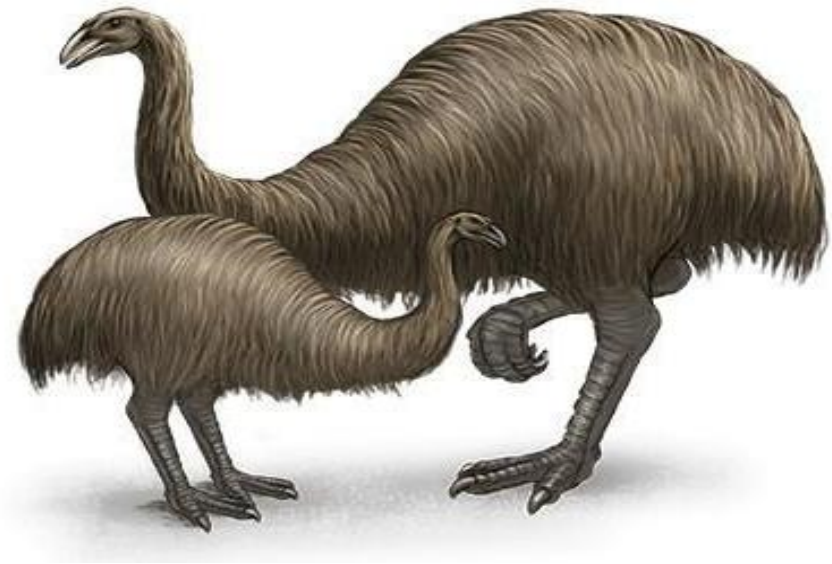
birds, and the males were significantly smaller. Radiocarbon testing[22] performed on the stomach contents of the moa concluded that the moa existence could be dated back to about 0-300 and 1280 AD. This, however, could not be accurately authenticated based on the environment that surrounded the samples taken at that time. As such, it would put the existence of the moa to have possibly been (in theory) during the first and second waves of migration as mentioned earlier.

The stomach contents of found specimens (as per the scientific research above) evidenced the moa as a vegetarian, with the main food source being fibrous twigs, and leaves from low trees and shrubs found closer to the forest floor. Therefore, an assumption can be made that due to the density of the ngahere (*forest*) prior to human occupation, the moa were foragers or '*browsing generalists'*.

The smallest moa has been described as being '*no bigger than a turkey*', and the largest sitting between an Ostrich and the extinct Elephant bird of Madagascar. An artist's impression[23] of the moa gives an idea of what this could have looked like. Based on heads found of the bird, evidence has revealed the spine of the moa to have been attached to the back of the head rather than the underside, like other ratites. According to Attenborough (2015), the stance in Figure 4 would be more accurate, where the position of the head would be in alignment with the back of the bird, resulting in the ease of grazing. Hence, Attenborough's description of the moa as the "*Flintstones of the bird world".*

[22] Lamont Geological Observatory of Columbia University and the Geochronometric Laboratory of Yale University.
[23] Artists unknown. Online article called the 'wonderslist' of extinct animals. By Wardah Hajra

Figure 4: No 5. Moa



Note: Source: Wonderlist; 10 animals that scientists want to de-extinct 2017.

Of the known species, four have been identified as having occupied the North Island, which is relevant as it assists in the query of the vessel at the core of this study, the *'kii'*. As previously mentioned, the varying dimensions of the moa eggs are a key component as they form a foundation for the construction of the vessel.

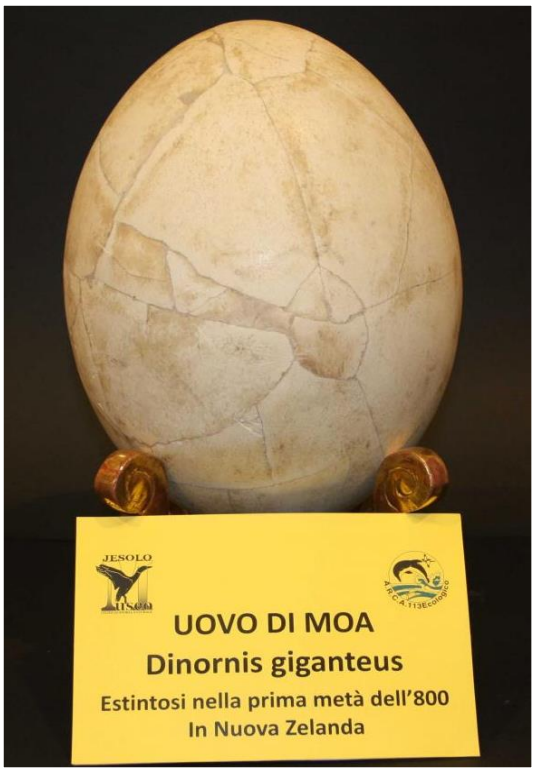
Further radio carbon testing on a Dinornis tibia and leg bones has dated them between 1496 – 1676 A.D. This is a claim accepted as being more accurate, which would position the existence of the moa around post Polynesian migration of 1350. Consequently, this means that Māori lived amongst these great birds for a very long time, and the vessel known as the 'kii' would have played a major role in the day-to-day hunting and gathering to sustain themselves.

The Moa Egg

Both Teviotdale (1932) and Griffiths (1942) have recorded many areas of interest where moa hunters' huts and fire pits have revealed moa bones, remnants and on occasion eggs. The largest egg they uncovered belonged to the Giant Moa (Dinornis novaezealandiae), which measured - 24 by 17.8 centimetres, the smallest egg was believed to have belonged to the stout-Legged moa (Euryapteryx curtus) and measured 12 by 9.1 centimetres.

The fossilized egg of a Northland Giant Moa stood at 35cm in height, and 25cm in width.[24] This specimen is significantly larger than those found by Teviotdale and Griffiths, and to date, it is the largest documented moa egg found, which offers an idea of exactly how large these eggs were.

Figure 5: Fossil egg of the North Island Moa



Note; Source; Life of Charles Darwin. Museum Service: n.d.

The vast differences between the examples mentioned, would mean the kii would need to have the ability to expand so as to accommodate the varying sizes of the moa eggs gathered. Some moa eggs found at excavations have been described as being quite brittle, where others have been recorded as having a hard-outer shell. It is not clear as to the cause of this difference in structure. One might assume that it could be climate related, or perhaps the species of moa were affected by their change in diet, directly impacting on their eggs.

Conclusion

The information gathered in this chapter has highlighted the 200-year gaps between each wave of migration, consisting of Kupe (around 900-950AD), to Toi (1150AD), then

[24] Part of an exhibition showcasing the works of Charles Darwin (1809 – 1882).

finally the Great Heke (1350AD). What is interesting about the timing of these migration waves is its evenness, which prompts the question, why? Was it simply a coincidence? Nevertheless, within these timeframes, the moa roamed the domain of the tupuna Māori right up into the 14th and 15th Century.

Considering the variance in sizes of the moa eggs themselves, this suggests the method of transport would then differ, with the smallest being easier to transport than the largest. As such, the descriptions provided by both Huata and Hemana, who reflect on the design of the vessel (as a transport for eggs) as a '*woven vessel*', or a '*flax made bag',* leaves me to question its construction as a kai raranga. Hence, further investigation is necessary to determine the form, technique applied and material/s best suited to the task.

Chapter 3 Materials and Methods

Introduction

What would this vessel the *'kii'* look like? To answer this question, one must dissect the original dialogue which refers to the kii as being a *'woven'* or '*flax bag'.* What then makes sense, is to explore this further within 'Te Whare Pora'.

Another key point to remember, is the secondary suggestion by both Huata and Hemana, of the transformation of the vessel into becoming an exercise implement. Consideration as to what types of weaving, baskets or other items the earlier explorers could have brought with them, could contribute to answering these queries.

For instance, what we do know from published works of Best (1924) and Buck (1950), is that other than clothing, baskets, netting, tools, and weaponry, among other useful equipment, made the journey to these lands. In short, this evidenced pre-existing skills, in particular, raranga and net making.

According to Buck (1950) and Holms (1957), weaving was performed by both the men and women, but the netting was the task of the men only. I have not encountered further dialogue to substantiate this claim, however, regardless of this, I have placed this korero in the tikanga and kawa[25] category pertaining to raranga within Te Whare Pora, as I believe this is where it belongs.

Specialized skills and knowledge in areas of importance were paramount during the early years of Polynesia, and to Māori before European interruption. For example, 'Tohunga[26]' were of high importance, their predicted foresight influenced many decisions, and no activity was performed without their wisdom and guidance. Similarly, Smith (1899) mentions in his article the important roles of the Tohunga within a community.

Also, the art of raranga was no exception, Tohunga of mahi toi (expert artists) were known to be very strict, hence, the art form was considered tapu. There were karakia rituals, tikanga and kawa that had to be adhered to. Additionally, students were carefully hand selected for the honour of learning. With raranga already well established within

[25] Protocols of behaviour.
[26] Priest or expert in their specialized skills.

the first two estimated waves of 'moa hunters', the priority as I perceive it as a kairaranga, was to source alternative material substitutes for the task of raranga and kupenga.

Baskets and Bags

There are many types of baskets or bags throughout the Pacific, and known by different names, often to indicate their intended purpose. The baskets that arrived during the moa hunting period were originally made from coconut fronds, or cane, and used for the purpose of catching food, cooking, transportation and storage. Techniques applied in the preparation of the material to construct these vessels also varied according to the medium and function of the item.

During these earlier times, coconut palms and cane were not readily accessible in Aotearoa, so alternatives were sourced. For instance, if I were to continue on the path of a '*woven or flax bag*' as contenders for the kii, the following table outlines the definition of these as I understand them to be, within Te Whare Pora.

Table 1: Woven Vessels

Vessel	Description	Main Medium
Woven Flax Bag	A kete like structure consisting of 2 or 4 corners. One or two handles / straps or grips. limited expandability.	Harakeke / dressed or undressed
Woven Bag	Same description as above.	Alternative sturdy weaving materials such as bark or ti kauka or kiekie etc.
Basket or container	Kono style vessel consisting of 4 corners. Independent structure of varying sizes with no flexibility. With or without handles Square, rectangular or oblong in shape.	Harakeke / undressed Or other weaving materials such as bark, ti kauka, kuta etc.

The vessel used for transporting moa eggs would need to expand to comfortably house the contents, regardless of which sized egg was found. It would also need to retract and shrink to a more enclosed vessel for the kōhatu, otherwise the contents would fling

out during the exercise and cause harm, much like a sling. Therefore, a *'woven*' or '*flax*' bag in a solid state would not be suitable contenders for this purpose. Whereas kupenga or netting would be more appropriate and are discussed in more detail next.

Netting / Kupenga

Predominantly used for fishing, netting did not seem to have any other function. Some fished mostly with hooks of specific design,[27] where similar to the woven vessels described in the previous section, the nets varied in construction and materials according to what was readily available and their overall function. One group would only fish at night (Graghty, 1993), and another during the day (Nordhoff, 1930), depending on what was in season, or available in that area.

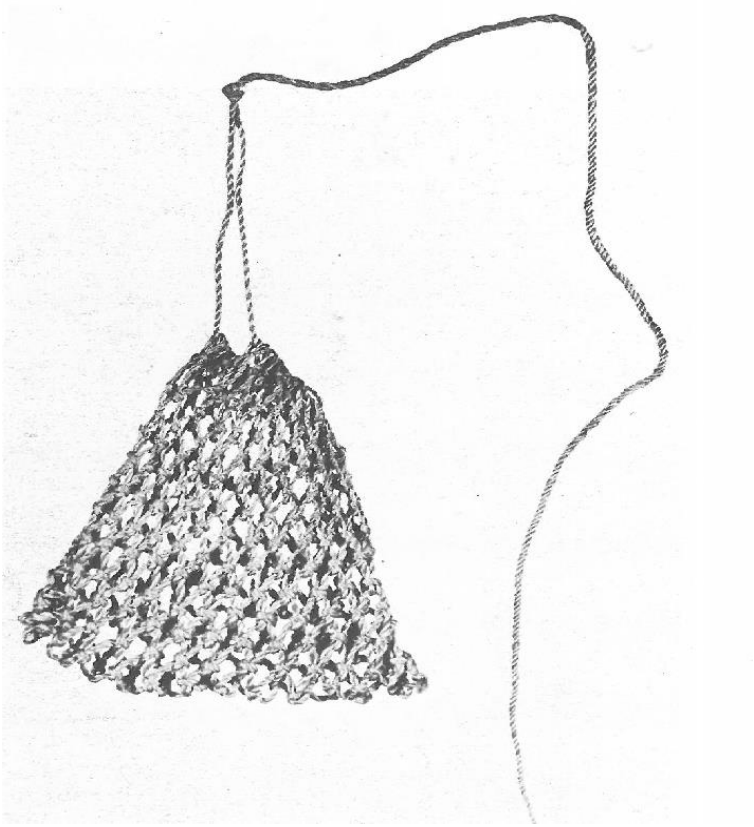
Netting techniques and styles have a common thread running through them in the Pacific. Yet, one of the most obvious factors relates to how they were purposely made to ensure a high degree of flexibility, endurance and strength, which are the very components I am looking for to reconstruct the kii.

A potential contender for the 'kii', is this Rohe Kaka (see Figure 6). It was used as a trap to catch the Kaka bird. Simplistic and functional, the trap would be set in such a way that the bird would become caught and unable to escape. As illustrated in Figure 6, the style of the Rohe Kaka would easily fit the purpose of transporting moa eggs of any dimension. The vessel gathers at the top and would secure the contents. Hence, this example would in all probability, be able to host kōhatu.

Another interesting factor regarding the construction of the Rohe Kaka, is the conditioning of the material within the body. It seems to closely resemble the 'whiri tawhai'. This simply means that additional preparation of the material was required prior to commencement of the vessel. A length of cordage made up of the two-ply twist, has been constructed. This would further strengthen the vessel, giving it longevity.

[27] A comparative study explored from archaeological findings Chapter 2.

Figure 6: Rohe Kaka

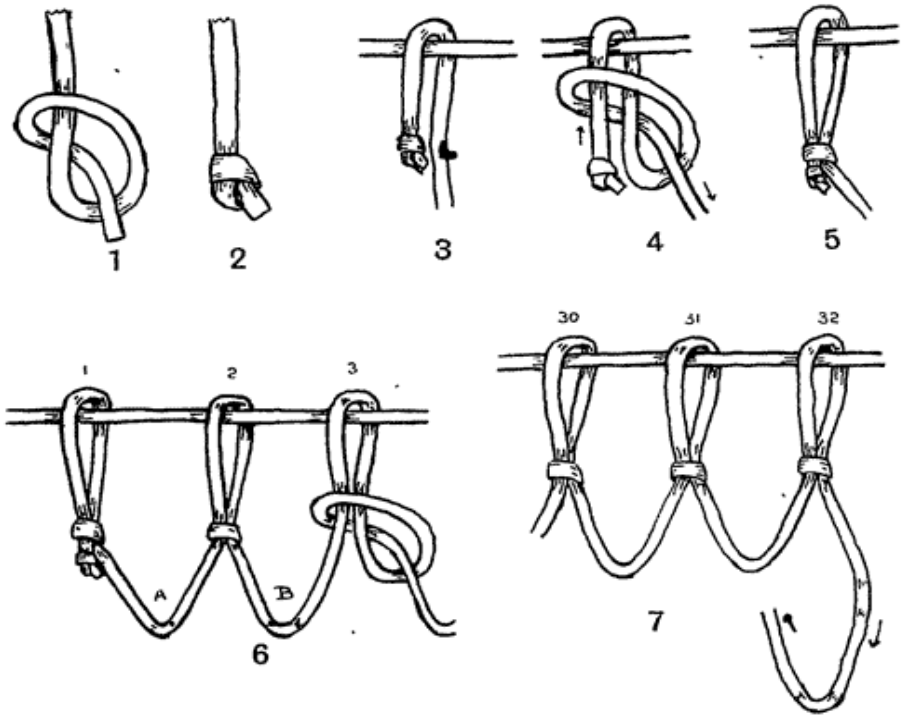


Note: Sourced from M. Pendergrast (Feathers & Fibre. Auckland, New Zealand: Penguin Books, 1984).

Closer examination of the Rohe Kaka reveals its construction to be that of the closed loop with overhand knots (see figure 7) to create a bag like vessel, fitting the description by Huata and Hemana of a kii, minus the term woven. The vessel also has a short taura attached to the opening constructed with the 'whiri tawhai' (*two ply twist*). Attached to this taura, is an extended length of extra whiri, used to tie the Rohe Kaka to a tree.

The technique in Figure 7 would be ideal for constructing a kii, as it would allow for free movement of the vessel to expand comfortably around the item, or items enclosed within. In short, it is simple in design as well as practical.

Figure 7: Closed-loop commencement, with overhand knots



FIGS. 1–7.—Closed-loop commencement, with overhand knots.

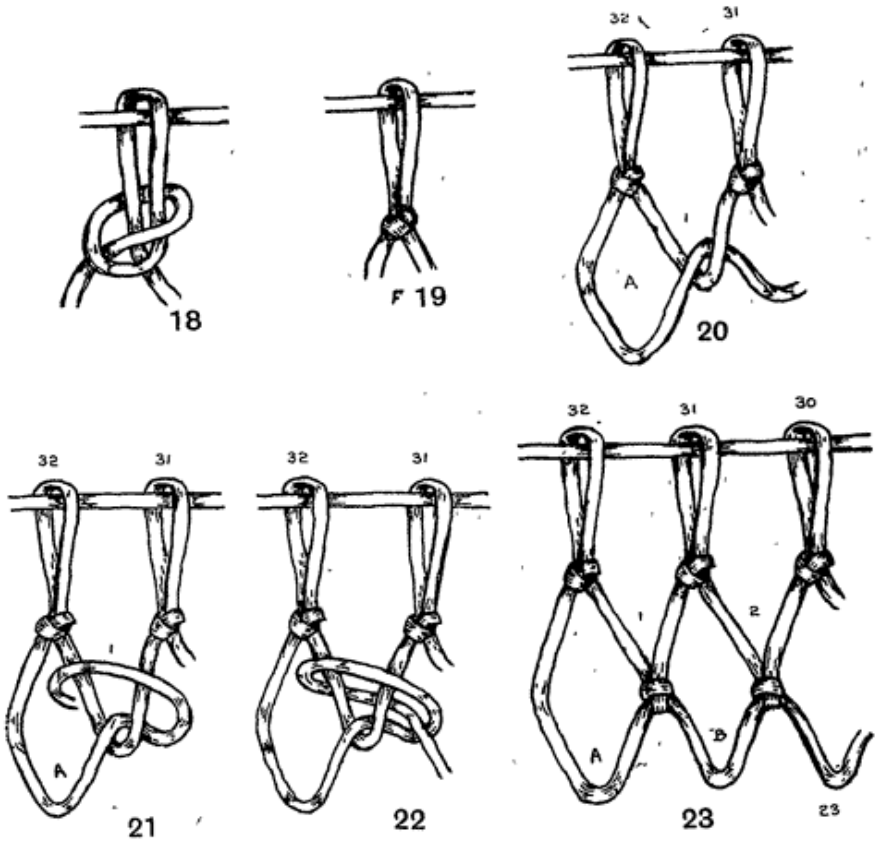
Note: Sourced from: Transactions and Proceedings of the Royal Society of New Zealand, 1926.[28]

The netting knot used in the construction of the closed loop seems to secure each loop in place, whilst allowing the gaps created to be of an even spacing governed by the net maker or a better term to use would be 'weaver'.

Assemblage of the kupenga allowed movement within their structure, which would tolerate continuous expansion and strain. The process of construction also makes the method of any necessary repairs relatively easy to apply. Below, Figure 8 shows the reverse side to the closed loop shown in Figure 7, with additional parts demonstrating a continuous rhythm to its construction, creating the netting knot in its complete form.

[28]The Maori Craft of Netting Hiroa,T

Figure 8: The netting knot



Figs. 18–23.—The netting-knot.

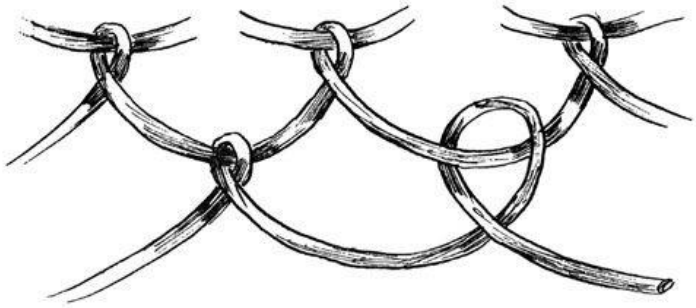
Note: Sourced from: Transactions and Proceedings of the Royal Society of New Zealand, 1926[29]

Though more labour intensive as described by Buck (1926), the netting knots ensure a more supportive end product as the spaces are secure. In contrast, movement of these spaces would be limited compared to the looping technique (see Figure 9). The downside to the closed loop technique would be that it consumes more yardage of material, nevertheless, the end result would produce a practical and functional piece.

During this research, I discovered that the looping technique applied to netting is quite common, and it can be found in numerous items and in many other cultural groups, both past and present. Also, it is a technique that requires minimal difficulty, and uses the least yardage of material as previously described in comparison to the netting knots.

[29]The Maori Craft of Netting Hiroa,T

Figure 9: Simple Loop of continuous loose half-hitches



Note: Sourced from: The Journal of the Polynesia Society. Volume 42 1933[30]

A close contender in raranga of this style of netting is the poi awe, which is constructed through the application of this technique. The medium used is dressed harakeke or muka, passed through and over loops which are tightly manipulated, increasing and decreasing to shape the body into a circular ball.

Figure 10: Looped Poi

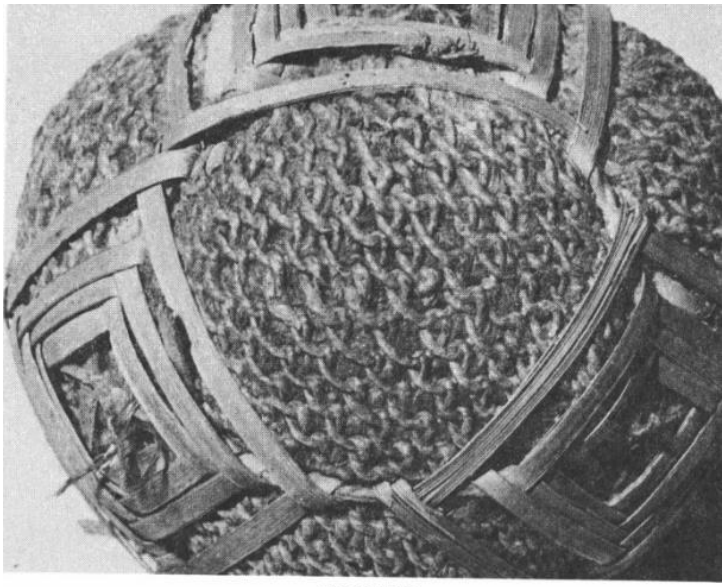


FIGURE 20
Looped Poi

Note: Sourced from: The Journal of the Polynesia Society. Volume 92 1983[31]

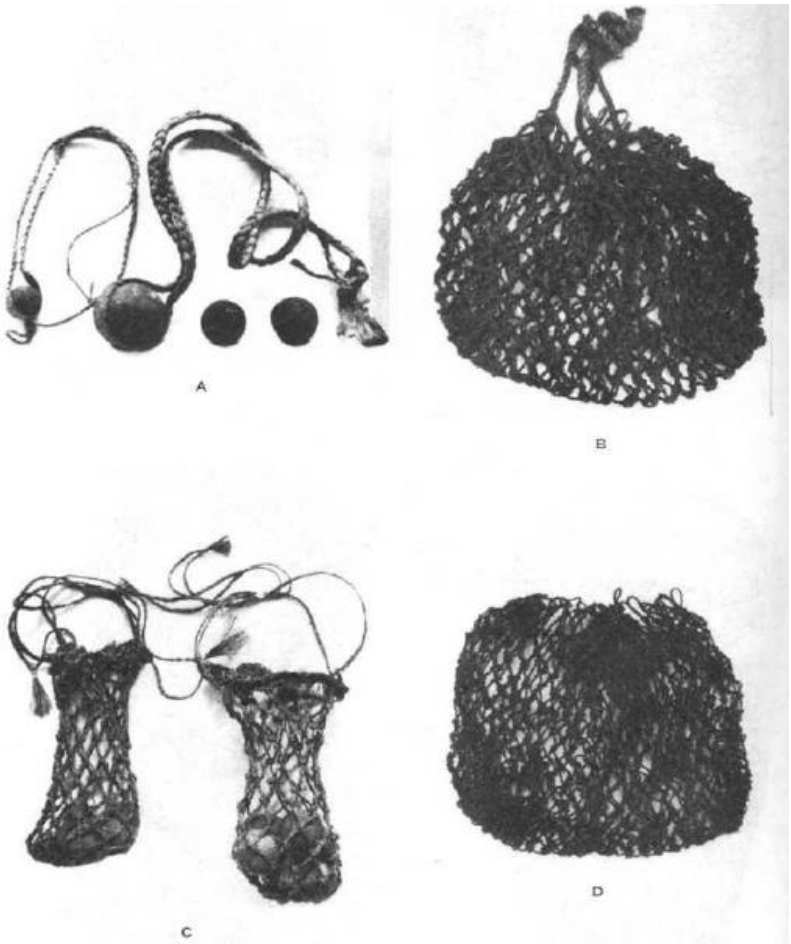
Once completed, the object is filled with raupo down and adorned by the weaver. The vessel has limited expandability. As such, it would not be suitable for reconstructing the 'kii' in this condition, however, if the loops were loose and more open, this technique

[30] Australian netting and Basketry techniques, by D. S. Davidson, p 257-299
[31] A descriptive classification of Māori fabrics cordage plaiting windmill knotting twining looping and netting, by J. Connor, p189-214

shows definite promise as being suitable for the task. Undressed harakeke would not be suitable for this style of netting, as in its solid condition it would be too rigid and not easily manipulated. It would also have a limited life span, as opposed to dressed harakeke, which is more enduring and much stronger in form.

Another vessel I came across, which caught me by surprise was the carrying net for the small stones / projectiles used with a sling (as seen in Figure 11, Image C). This is another prime candidate as its construction resembles the kupenga and is attached to a taura, much like the description of the 'kii'. A simplistic construction suited to the period, which would expand to accommodate the contents. As a result, it would be ideal for the varying sizes of moa eggs described earlier.

Figure 11: Slings and sling stone carriers, Rarotonga, and net food carriers, Aitu



A, SLINGS AND SLING STONES, RAROTONGA (AUCKLAND MUS.); C, SLING STONE CARRIERS, RAROTONGA (BISHOP MUS., C8860); B, D, NET FOOD CARRIERS, ATIU (BISHOP MUS., C2867, 2868).

Note: Source; Thesis, Re-assessment of Objects Referred to as Sling Missiles in the Prehistoric Archaeology of the Near East. Kubikova, Barbora. Masaryk University. (2013).

Assumedly these stone carrying nets were constructed by way of finger netting. Considering the periods of the sling samples of this section, an observational conclusion is that the craftsmanship would differ slightly from one geographic location to another. It could also be argued that the material used for construction of the carrying net in Figure 11, is the same material used for the slings (as depicted in Figure 11, Image A).

Upon further examination of the sling stone carriers in Figure 11, the weaver of Image C has applied a knotted technique to the construction. The top looks sturdy, and resembles a whiri top, much like the top of a kete kai construction. However, it is hard to tell from the image the exact style of kupenga, yet, it is obvious that it serves its purpose. The short pieces of cordage resemble tightly plaited whiri stands, which (*I assume*) would be used to secure the bag to the belt or waist band of the user. Here, in this form, I could envisage it being used as an exercise implement as implied, but not to transport large moa eggs, unless modified.

The net food carriers of Figure 11, images B and D, would be ideal for the purpose of transporting large eggs of varying sizes quite comfortably. Though a little blurry when the image is blown up, the style of kupenga resembles that of the knotting technique described earlier; closed loop with the overhand knot. It also has an uncanny resemblance to a more modern carry bag. This vessel looks rather similar to the Rohe Kaka, yet the style differs and, in my opinion, it would seem a little too bulky for the task of dual functionality as described by Huata and Hemana.

What I find interesting though, is the origins of these vessels. Rarotonga is known as a point of origin for the main launching of the 'Great Heke' of our Tupuna during and prior to 1350AD. This would then signify that vessels of this nature were already in use. As such, when confronted with the large moa, our Tupuna had already mastered the art of using slings to kill, as well as the means to transport their food securely.

Suitable Material

Once in the new lands, it became apparent that the fauna differed to what the earlier voyagers were accustomed to and as a result rangahau began quite quickly, with the drastic change in temperature being a factor. Alternative resources for weaving were to be discovered; no doubt a perilous journey of experiments and failures. Tipa (2018)[32]

[32] Treasures of Tane.

presents some examples of weave-able plants from these earlier findings. Also, the Landcare Research website has collated an extensive and detailed list of plants used for raranga.[33]

Buck (1926) describes the most common plant used for weaving or netting as harakeke (*Phormium Tenax*), which was mainly used due to its strength, abundance and ease of preparation. He suggests because of this, there was no need to introduce other materials into net making, as once the material was stripped and prepared it became very agile and easily manipulated. He also states that dressed harakeke (muka or whītau (*flax fibre*)) was also used for certain types of netting (*as described in the looping technique of figure 9*). Scheele (2005) has collated a very detailed booklet of harakeke varieties belonging to the Rene Orchiston Collection, which describes their origins and many uses. This collection of harakeke is prized throughout Aotearoa within the weaving community, as it contains more than 50 different varieties. Three plantations are established here in Taranaki.

As mentioned earlier, historically 'tā kupenga*'* (*the making of nets*) was solely the occupation of men, therefore, I was initially reluctant to attempt any experiments relating to kupenga. However, this reluctance soon diminished once I reminded myself that I was reconstructing a kii, and not a kupenga for fishing.

Another plant fibre suitable for the task would be 'tī kauka' (*cabbage tree, Cordyline australis*), accredited with durability and strength in its dried form. When combined with harakeke, it often becomes the preferred medium within the construction of taura for anchors, and other useful items requiring these properties, such as kete, hieke (*rain capes*) and paraerae *(sandals*).

Conclusion

As the discussion above highlights, there are many suitable options available for weaving, which in turn, directly affect the decisions made by weavers regarding the end product's overall purpose and application. With this in mind, it has become clear through my rangahau that the kupenga design would be the most suitable application for the task of reconstructing the '*kii*'. This is due to the fact that there were many styles of kupenga used by Māori during the earlier years, as shown in the vessels from

[33] Both sources have documented the propagation, environmental data and alternative uses, including their 'rongoa' (medicinal uses) properties (not discussed in this paper).

Rarotonga and Aitu, which encompassed a wide range of diverse functions. Also, Māori had no need to use tools such as netting needles or looms, as much of the task was performed through precise coordinated manipulation of the material by way of eye and hand application.

That being said, preparation for most kupenga required minimal effort, yet, it was critical for skilled net makers to carefully select the species and leaves suitable for the task, which the aim of ensuring consistency and durability was achieved throughout the netting.

Overall, the ease of preparation and accessibility of harakeke deemed this natural resource to be the most suitable for the art form of kupenga. As with all raranga, the kaiwhatu would carefully select the appropriate harakeke best suited for the project. As with any raranga project, not all harakeke is equal, or suitable for every task, so it seems logical that the net makers would take time to source the right plants for their unique qualities. Therefore, for this rangahau, I myself travelled great distances to source the right harakeke based on its quality.

Chapter 4 Trials and Results

Introduction

Kupenga forms have much variance, therefore I felt compelled to experiment a little, as highlighted further below. After examining some examples of kupenga, I began applying similar techniques in my kete making, and added my own flavour to the mix, to see what kind of result I would achieve. As always, in the back of my mind, sat the original kōrero from Huata and Hemana who described the vessel as a '*woven*' or '*flax bag'*.

My 'tutu' with the styles of kete (shown in Figures 12 to 14) incorporated three different weaving techniques. I attempted to add kōhatu inside them, and swing them as per the descriptions given by both Huata and Hemana. However, the result was not quite what I expected, so I could eliminate these as possible contenders. I have included them as examples of my interpretation of what a woven or flax bag looks like as per my own raranga knowledge and skills, as well as styles previously unknown.

Figure 12: Kete whiri with an open weave

Note: Source; Personal Collection. J. Ngaia (2016)

Figure 13: Kete Kupenga Version 1

Note: Source; Personal Collection. J. Ngaia (2016)

Figure 14: Kete Kupenga Version 2

Note: Source; Personal Collection. J. Ngaia (2016)

While it was not my primary objective, I still wanted to create the design that would allow for exercise as described by Huata. After that my intention was to pursue the creation of vessels with props representing the size of the moa eggs for my first exhibition "Whatu Oranga"[34]. Consequently, I applied varied techniques to ascertain their shape and form (see Figures 15-18).

Figure 15: Kii / poi toa, open kupenga style

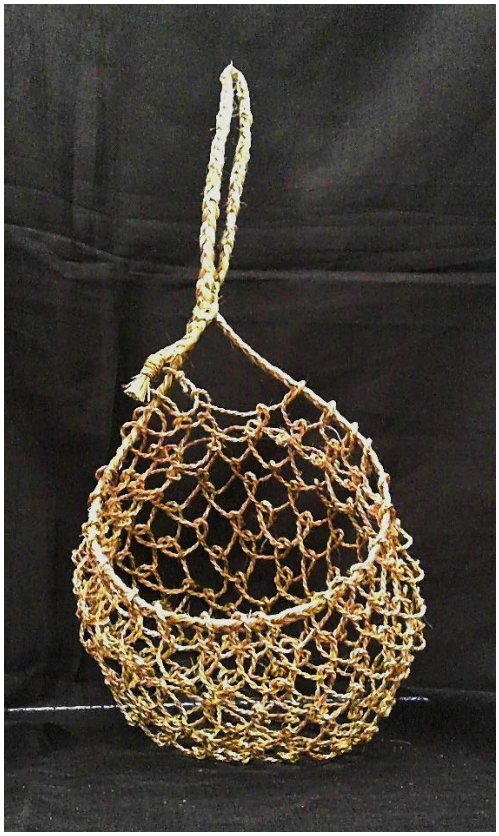
Note: Source; Personal Collection. J. Ngaia (2017)

Figure 16: Kii / poi toa, circular netting style

Note: Source; Personal Collection. J. Ngaia (2017)

[34] Post Grad Exhibited Pieces**,** held at Rangiatea, in Ngamotu (New Plymouth) 2017

Figure 17: Single Kii with Looping Style Kupenga



Note: Source; Personal Collection. J. Ngaia (2017)

Figure 18: Double Kii with Looping Style Kupenga

Note: Source; Personal Collection. J. Ngaia (2017)

My main objective was to pursue the creation of the kupenga in the form of the 'Rohe Kaka', as I believe this form fits both functions of the *'kii*' perfectly. Additionally, I intended to recreate the sling stone carrier bag from Rarotonga. Finally, I also intended to recreate the '*poi kohatu*' as named by Huata or the '*kii*, or *poi toa*' as named by Hemana, but apply my own style. Beginning with the latter, in the following discussion, I describe the process of creating the poi kohatu/poi toa.

Poi Kohatu/Poi Toa

I continued to be captivated by the korero of Huata, and proceeded to take great interest in how the vessel was used for the purpose of exercise. I noted the stance she employed, and positioning of her body of particular importance, combined with the rotation of the implement. There was a graceful way in which she was able to swing this implement, rotating it in a circular motion on one side of her body, then quickly manoeuvring it into a figure-eight pattern across the front of her body, before transferring it to the other hand and repeating the same movements. The transition from one hand to the other was applied in a smooth and uninterrupted manner. I noted that she maintained the same positioning of her feet, and only moved the upper part of her body in the directions of the implement.[35]

The construction of the vessel was also noteworthy. Fortunately, a still image of the vessel was shown,[36] and I was able to conduct a close examination of its construction through the lens of a weaver, and dissect the components. From my observation, I was able to determine the following information:

- It was a small kohatu about the size of her palm, housed within a tightly woven kakahu.
- Harakeke seemed to be the only medium used to construct the piece.
- The takitahi weave was used for the body of the kakahu.
- A firm castoff was applied at the open end of the kakahu to secure the kohatu within its encasement.

[35] Head, shoulders and waist.

[36] I was able to locate footage on YouTube, pause the video and conduct a closer examination of the vessel from various angles.

- The kohatu is clearly seen just peeking out through the end of the kakahu, indicating that the shape of the kohatu was oval, as opposed to round, with an elongated form.
- At the other end of the kakahu, was attached a foot long taura as described, which seemed to be firmly secured through the extension of the ends of the whenu from the kakahu.
- The whenu looked as though they were shredded prior to adding into the taura in order to extend it to the required length.
- The taura was plaited into an iwi tuna whiri (one of the strongest whiri used in the construction of handles).
- At the top of the taura, there was a loop which was used as the hand grip. It was noted that the loop was large enough for the hand to grip firmly, allowing transition of the vessel from one hand to the other in one easy, smooth movement.
- Also observed was how only the hand entered into the loop, pausing at the thumb, which prevented the wrist from going all the way through.

As a result of these observations, I reconstructed the '*poi kohatu,'*. The first step was to find a kohatu that felt comfortable in the palm of my hand, with a reasonable weight. However, it ended up being slightly lighter than a medium sized taiwa.[37] I then used one of my strongest varieties of harakeke from my own collection, which I knew had a lot of fibre (kohunga).[38] In doing so, I also considered the safety aspect of construction to ensure the taura did not break, and the kohatu did not hurt anyone. Finally, I followed the notes recorded, and wove the kakahu (see Figure 15). Because the kohatu was not very long or big, I used .50cm widths for the whenu.

[37] The Taranaki kupu for spuds.

[38] Gifted and sourced from the personal collection of Kui Diggeress Te Kanawa.2009.Oparure, Te Kuiti.

Figure 19: Poi Kohatu

Note. Source: Ngaia, J. personal collection. (2016).

Once the taura was at a reasonable length, I then gauged the right level of where to separate the parts to create the handle. Motivated by safety, I held the kohatu in a position just above my ankle, allowing the weight of the kohatu to guide me. From there, the taura was evenly divided. The objectives were to ensure firstly, the kohatu did not touch the ground once the handle was complete, and secondly, my hand could comfortably fit within the opening for ease of transitioning from one hand to the other, as demonstrated by Huata. There was a slight improvisation of the whiri used in the finishing of the handles loop, as I felt this was necessary due to the repetition of movements. However, the iwi tuna whiri was too rough in texture to function efficiently for this activity as it would feel like coarse sandpaper grinding on soft tissue. Therefore, I applied the whiri tawhai, a two-ply twist, which is a whiri I knew from experience would better serve the purpose, and be a lot kinder to the skin.

Afterwards, I chose to re-watch the video and instructions of correct use, without the poi kohatu in hand, to ensure I had the sequences well-rehearsed, again thinking of my own safety. Once my confidence had built enough the poi kohatu was added. While it was then introduced with a little apprehension, courage took over, and before I knew

it, a good rhythm, stance and concentration was achieved. Overwhelmed with excitement, I began using this as a form of exercise, and felt absolutely great. Within a few months, I noted an increase in energy, observed improvement in my focus, agility, and stamina. My body was transforming, legs and arms were strengthening, and activating the abdominal area was showing signs of flattening and toning of the tummy and waist areas. I was super impressed, and could clearly comprehend why this particular form of exercise was applied by the Tupuna Māori.

After a while, this poi kohatu was beginning to feel a bit too light, so I decided to make another one with a bit more weight. I also wanted to add my own flavour to it within the raranga itself, which in essence meant having another tutu. I found the perfect kōhatu while on a beach walk, or perhaps it found me. Instead of just fitting my palm, it sat cradled in my semi cupped hand from the base of my palm to the tips of my fingers. It was a good fit, and of a heavier weight, so I knew this was the one (see Figure 20 below).

Figure 20: Poi Toa

Note. Source: Ngaia, J. Personal collection (2016)

I continued to use this creation in the same manner as the earlier version for a while, and enjoyed the challenge of the now intensified exercise, and how notable my body was toning. Unfortunately, I became too comfortable in the movements, and in doing so, I did not think clearly about the safety aspects I had been so self-disciplined and conscious of up until this very moment. As a result, in preparation to transfer the object from my left hand across to the right hand, I lost focus and decided to exercise my

wrists in another way, and angled my left wrist inwards at the same time as bringing the left arm down across the front of my body. I do not think I need to describe what happened next, however, I need to make this perfectly clear:

> **WARNING**: DO NOT ATTEMPT THIS EXERCISE UNLESS YOU ARE VERY CLEAR IN YOUR MIND THE SAFETY ASPECTS I HAVE DESCRIBED AND FAILED TO ADHERE TO IN A BRIEF MOMENT OF ABSENTMINDEDNESS.

The pain was excruciating. My fear was that I might have broken something as I had heard a cracking noise. The lump and marking are still there years later, and I became so apprehensive in using this particular creation that it took a long while before another attempt was made. Consequently, I opted to resort back to the original lighter example, until I regained my confidence and ceased contemplating the worse.

Sling Stone Carrier.

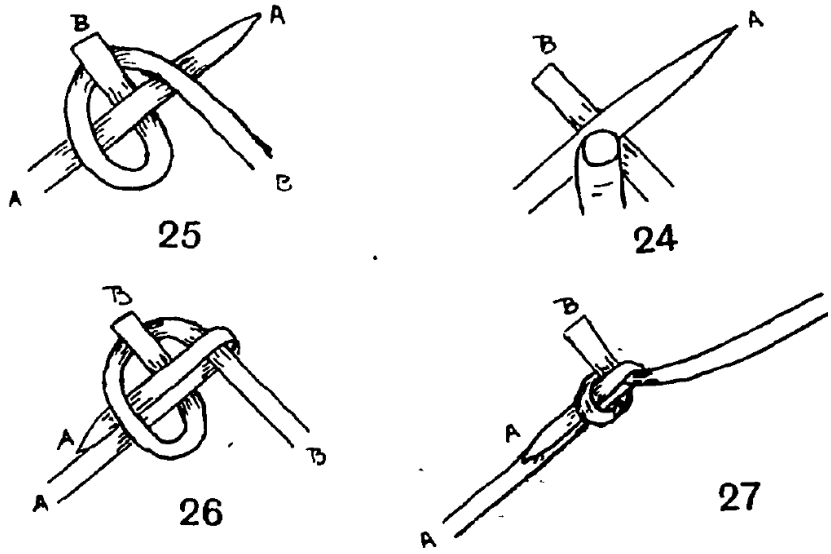
The sling stone carrier (see Figure 11) seems simplistic in design, so I have attempted to recreate this vessel with basic preparation techniques of the harakeke material. Each working strand is made up of the whiri tawhai, as each strand becomes woven within the piece, the ends are extended through the addition of extra working strands by applying the weavers' knot (see Figure 22). The closed loop and overhand knots in Figure 7, are the main form of construction for the body of the example presented, which is then completed with two taura also made by way of the whiri tawhai.

Once the sling stone carrier was completed, I then observed how easily this vessel type could act as both a transporter and an exercise tool. Based on these results, I can only theorise that both the Rohe Kaka in Figure 6, and the Food Carrier in Figure 11, were also constructed using these same techniques as was employed in the 'Sling Stone Carrier', as this is how I would have reconstructed them.

Figure 21: Weaving strands and taura

Note. Source: Ngaia, J. Personal collection (2021)

Figure 22: Weaving knot



FIGS. 24–27.—Joining netting-strip with weaver's knot.

Note: Sourced from: Transactions and Proceedings of the Royal Society of New Zealand, 1926.

Figure 23: Completed Sling Stone Carrier

Note. Source: Ngaia, J. Personal collection (2021)

Figure 24: Sling Stone Carrier with Polished Stones

Note. Source: Ngaia, J. Personal collection (2021)

Conclusion

One factor that has become apparent is that the trials and results described above have provided sufficient evidence to answer all the original questions pertaining to the kii, its look, construction, and transformation from one useful vessel to another.

I have also managed to recreate the kii/poi toa, and used this implement as it was intended, for exercise. I could also imagine this tool as being used as a weapon to inflict harm or even death if it was intended as a weapon, a conclusion made after my own slight mishap. As such, I could not dismiss the idea that the sling has also contributed inadvertently to this rangahau. This is in regards to how Māori would have made use of the tools they had at hand, especially in the context of migration from Rarotonga, Aitu and the early voyagers from the Pacific.

Overall, I conclude that the rangahau I required did indeed sit in the past of our Tupuna Māori, particularly in this instance, Rarotonga and Aitu. I have no doubt that if pursued further by future researchers, links will be made clearer, which highlight similar items across other Pacific groups, resulting in connecting even more dots within the puzzle.

Chapter 5 ‘te ārai ō inamata’

Introduction

As a result of the findings in previous chapters, development of my creative installation presented me with many challenges. In particular, the processes of deconstructing a concept in order to reconstruct it as a sculptural piece, forcing me out of my comfort zone in a major way, and into an unknown territory. It prompted a series of questions, such as: How do I pull this vessel apart when I’ve only just figured out a method of construction? What does this look like? Traditional or contemporary mediums? In what form? What techniques will be applied? What size kōhatu? How many? What shape? What is the scope of this installation? Hence, so many questions and the following discussion presents an attempt to answer them.

The three artists who have inspired my installation are Maureen Lander, Haegue Yang and Tracey Krumm, who are reflected upon in turn below. Though they use different mediums and applications, each of their artistic uniqueness is both sophisticated and captivating.

For each, there is an unspoken understanding of movement, shapes and shadows that resonates with these artists assembled works which represent both past and present philosophies. Overall, their ingenuity and manipulation of traditional, and contemporary mediums blended with my own thinking. Their contributions are recognized and gratefully acknowledged.

Inspirations

Lander, Maureen / Māori / European

Born in 1942, Lander lives in the Hokianga, Far North of Aotearoa. She first became interested in using harakeke as her main medium, after a visit to Kui Diggeress Te Kanawa. She describes how her love for muka grew from this experience. She was “*seduced by the beauty and magic of muka*”. She knew this was going to be a medium she would be happy to work with, because of the connection she had with the plant, and its connection to whakapapa. Lander knew she could create symbolisms with this medium, to discover who she was. She uses all forms of the harakeke plant, from the rau

to the seeds and flowers, and also incorporates materials from the *"Western World*", as she puts it.

Landers works have been exhibited since 1986, Internationally in the United States, the UK and Australia, and within New Zealand. Her previous years as an artist were greatly influenced by Marcel Duchamp, a French/American painter, sculptor, chess player and writer. As well as Christine Hellyer, a sculptor of repurposed materials, and painter, who grew up in New Plymouth.

Lander prefers to create her work between the ceiling and floor. She relates this to working between the sky and the earth, Ranginui and Papatūānuku. She states that:

"*if you know its whakapapa, you can talk to it*".

Her feelings are that:

"*if you can relate to something strong enough as an individual, then it becomes universal*".

I am inspired by the way Lander has successfully managed to integrate the use of shadows within her installations to create extensions to her pieces, which seems to accentuate their uniqueness. Strategically placed lighting illuminates her art revealing the sole of each creation. Landers DNA installation (Figure 25) for instance, is a prime example of this dramatic effect within the layers of shadows. The kōrero to this piece, connecting the form to our atua is awe-inspiring. When I create my own self-expressive art pieces, each connects to our atua, or to kōrero of the past. Here, it is quite gratifying when respectfully translating wairua, through my hands, deliberately integrating the past with the present for the future.

Figure 25: Landers DNA Installation

Note. Source: Christchurch Art Gallery. Te Puna o Waiwhetu (2019)

Her installation *'Ngā roimata o Ranginui*[39]' (Figure 26) inspired the concept of creating a hanging installation. The spiral formed at the base of the centrepiece, reminds me of how we evolve in our learning and thinking. It also reminds me of the Taranaki narrative regarding the descent to the underworld to attain knowledge according to Kararehe (1898).

Figure 26: Landers Ngā Roimata o Ranginui Installation

Note. Source: Before Words Get in Between exhibition, Dowse Art Museum. Lower Hutt. (2018)

[39] Dowse Art Museum 2018 and North Tech Gallery, Whangarei. 2018

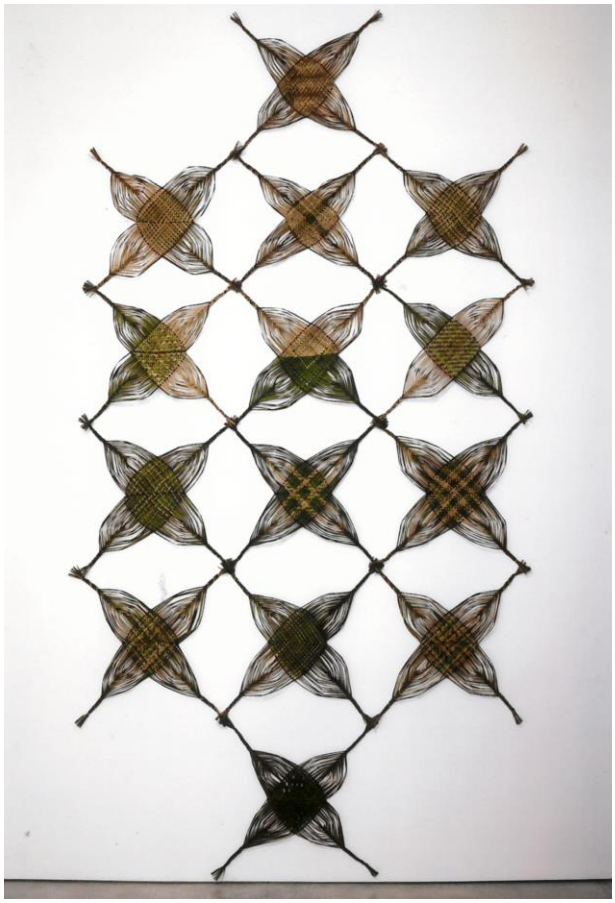
Figure 27: Ngā Roimata o Ranginui

Note: Source: Come Rain Come Shine exhibition, North Tech Gallery, Whangarei. (2015)

In 2018, before undertaking this research, I had the pleasure of weaving alongside Maureen with her companion and other local weavers, when she exhibited her Flat Pack Whakapapa[40] installation (Lander, 2018/2019). They were impressive pieces that consisted of kete forms with her own creation of what she referred to as '*petals*'. Each kete was carefully measured to precise lengths and angles. In particular, I was impressed and admired how she was so precise to the very last millimetre, and exactness. No two pieces were the same, each carried its own identity, and its own uniqueness, as well as its own kōrero.

[40] Govett Brewster Gallery, New Plymouth (Len Lye section).2019

Figure 28: Te Mauri Mana Wahine



Note: Source: *Flat-Pack Whakapapa*, Govett-Brewster Art Gallery / Len Lye Centre, New Plymouth. (2019)

Harakeke is the main component of Lander's art these days, which is a medium we have in common. More importantly, it is the use of symbolisms portraying layers of co-existence between elements that is on par with my own creative thinking, which is also what draws me to her as an artist, and to her creations.

Haegue Yang / Korean

Born in 1971 in South Korea, Yang works and lives between Berlin and Seoul. She is involved in a range of art forms and abstract sculptures. In particular, her artwork builds on layering materials, as she describes:

"*into complex constructions of abstraction and narrative*".

Yang began her artistic career in the late 90s, and has exhibited her works in the United States, China, Japan, Italy, Spain, France, the UK and New Zealand, just to mention a few. She is an interesting artist, who creates complex pieces influenced by

politics, poetry and human emotions. Yang typically incorporates mundane objects such as venetian blinds, decorative lights, industrial fans and even laundry racks into her sculptures.

Of note was her '*Floating Knowledge*' installation (Figure 29), which captured my attention instantaneously. I was drawn to the complexity of this piece, how each layer seems to cradle the next. gives me the idea of creating rings or layers as they remind me of levels, when relating this to the narrative of Tane ascending upwards to the highest heavens to obtain mātauranga. The randomness of empty spaces resembles small windows of opportunity, or glimpses into the past concealed within, with some areas exposed more than others.

Figure 29: Floating Knowledge, Fibre Sculpture

Note: Sourced: Glasgow Sculpture Studios (2013)

As with Landers installations, Yang's sculpture has reflected an interesting appeal within the shadow cast on the floor, as if the soul of the knowledge has given clues to the seeker of specific entry points. Hence, it is left up to the seeker to choose the right path for their own individual journey, and it is this particular concept that I really liked about the piece.

Krumm, Tracey / American / Twin City / Minneapolis

Krumm was born in Kenosha, WI, USA and she has exhibited works since 1988. Krumm is a unique textile artist who creates complex pieces of work through combining metalwork with crochet. She integrates found materials and forged steel into her pieces to tell a story of identity and human connectivity, through manipulation of low- and high-tech processes. She has exhibited her works internationally over the years in more than 175 galleries, with both solo and group exhibitions, ranging from Mexico, Poland, Belgium, South Korea and The United States, just to name a few. She also has collections installed in Companies, Museums, Hospitals, a hotel in Japan, including the US Embassy in Abu Dhabi.

Krumm has had quite a career as a Lecturer, teaching art, as well as finding time to create her own works. Her creative practice has evolved around her values regarding labour and tradition, which resonates with my own practice of tikanga and kawa. In short, she refers to her art as a:

"*marriage of ideas with the processes of the hand".*

Here, Krumm's description has a poetic alignment, as this is where my own creations have evolved from. Hence, it is reflective of the intimate relationship between one's self, the mediums they work with, the conceptualisation of ideas, and finally, the giving birth of artwork via careful manipulation and massaging of components to fit into their own spaces.

Krumm suggests that her unconventional implements have multiple uses of both the past and the present. She likes to use things that can catch, strain, sift or filter, becoming an abstract of collective metaphors, like fibre, water, metal earth and air. She states:

"you can convert anything - the more variables, the more flexibility you have. It's not a masterpiece, but more a new way of thinking".

In her Artist statement she also states:

"*These sculptures embrace traditionally "domestic" and gender-specific techniques, like crochet and blacksmithing. In their construction, I intentionally choose materials and objects that introduce physical components with specific aesthetics and histories of their own. These in turn inform not only the conceptual basis of my work, but also my choices about scale, technique, pattern, and other more formal aspects of art making*".

Of all Krumm's work, there is one piece that I am drawn to, which is aptly named '*Balanced*' (Figure 30). There is a gracefulness in the structure of this piece, as it cascades and collectively re-assembles itself at the base, forming a mystical chaos. This piece reminds me of veils as an obstruction and distortion of images, like peering through a netted curtain, stealing a glimpse of a captured moment, not quite sure if what you observed was an actuality or fragment of a missed opportunity.

Figure 30: Balanced Installation

Note: Sourced: Boulder Museum of Contemporary Art, Denver. 2006

Conceptual Development

Introduction

As a result of the artistic variations of influence, the succeeding conclusions have been formulated to challenge my own practice, and application of techniques within my creative piece. Though materials and manipulations differ, I will attempt to remain within the confines of 'Te Whare Pora'. As a practitioner of toi I am compelled and obligated to respect and uphold the mana of the origins to my own journey, as was instilled by the earlier kaiwhatu who influenced my raranga journey.

A commonality infused within the chosen artworks are the visual components alluding to ārai (*veils*). The netting coincides with my earlier experiments whilst constructing the kii. The layers in Yangs '*Floating Knowledge*' combined with Krumms '*Balanced*' installations (Figures 29 & 30), have inspired the idea to create ārai with different levels of attachment, suspended from the ceiling. The shadows cast on the floor by Landers *'Ngā roimata o Ranginui' (*Figure 28*)* has inspired the idea of using a spiral type centrepiece.

Scope

The entire piece stands at approximately 2 meters in height at a radius of 1 meter. I utilise a combination of manufactured and natural mediums from both contemporary and traditional applications. Based on the findings from the experimental stages, it was clear netting techniques were the obvious choice.

To create the ārai I employed the '*closed loop*' with *'overhand knots'*, as it requires more attention and skill for consistency. The ārai are attached to their own individual rings.

Suspended within the body of the sculpture are two kohatu encased within muka. The kōhatu is representative of using an earthy medium to connect Papatūānuku to Ranginui. The beginnings of our whakapapa to all things. They are suspended through the centre of the piece at different levels, one seen and one barely seen.

Components and Descriptions

Ārai tuatahi – First veil

The first veil is constructed with 400 meters of medium grade jute attached to a 150mm (6”) metal ring. It consists of four equal parts and a combination of raranga, takitahi pattern (over one – under one), and overhand knots evenly spaced creating the kupenga.

Figure 31: Ārai Tuatahi in progress

Note. Source: Ngaia, J. Personal collection (2019)

This ārai represents our natural realm; the here and now of what we know in the physical. Te kete Aronui (*basket of observation*); our senses – sight, smell, touch. The jute is a representation of how information can be perceived, processed and even misunderstood. This medium also represents entrapment, false knowledge, an unknown truth, a distorted truth. It portrays manipulation of thought through the introduction of alternatives, stemming from external interventions that corrupt the essence of origin. The four individual components expand their reach to ngā hau e wha (*the four winds*), an attempt to hold onto past knowledge, tūpuna knowledge. Through the kupenga, we often only get a glimpse into the void of lost knowledge. This is representative of the wave of the great heke of 1350AD.

Ārai tuarua – Second veil

A total of 600 meters of black cordelette chanvre **(**hemp rope) was used for the second veil and attached to a 125mm (5”) metal ring. This consisted of a closed loop and overhand knot technique, working in a circular formation completely covering the metal ring. The netting knot was employed to the succeeding layers. gradually increasing in size with each turn.

This ārai remained intact and connected. The colour black is representative of the unknown knowledge, or lost knowledge. The black material also represents a period of dis-harmony, disruption, chaos, division of people, separation, assimilation and corruption. This is the realm of the past, Te Kete Tuauri (*basket of sacred knowledge*), which contains karakia, ritual, exploration into the unknown, development and growth. There is added complexity across the piece as it reflects the order of alignment between the living, the atua and the tupuna, becoming fragile as the present becomes detached through modern thinking and enculturalization. Hence, separating the living from their whakapapa.

Figure 32: Ārai Tuarua in progress

Note. Source: Ngaia, J. Personal collection (2019)

The kupenga acts as windows into the past, which is why it radiates outwards and up. This ārai has connections of random unexpected obstacles, indicative of the journey taken for this kaupapa. For example, just when you think you have discovered the right path, you are instead led in another direction that removes you from the objective, which in essence, takes you along the longest route. This is the wave of Toi, 1150AD.

Ārai tuatoru – Third veil

The third veil was constructed from 1200 individual muka whenu @ 1cm widths, and attached to a black powder-coated steel tower (1.2m (4ft) using a variation of the clove hitch. Next, the application of the whatu technique together with the whitau (muka whenu) was employed to bind the individual components to each other. Each segment was calculated to centre the māwhitiwhiti (*a cross over pattern*) into three evenly spaced windows, which are whatu in place. A second row repeats this process, with a 3 inch wider spacing. The length of the ārai was then trimmed.

Figure 33: Ārai Tuatoru in progress

Note. Source: Ngaia, J. Personal collection (2019)

This ārai is the realm of ancient knowledge in its purest form; Te Kete Tuatea (*basket of ancestral knowledge*), that which was before us, where the kākano (*seed*) of ideas is conceived, nurtured and protected - this is the beginning of everything. This is the realm of our atua, of pūrākau, and whakapapa. Just as the inner core of harakeke is muka, so too is the heart and soul of te ao, which is embedded with the raw knowledge of what is and what was. However, we only get a glimpse into this realm through small windows of opportunity, when missed they are gone forever. This is the wave of Kupe, 950AD.

Frame – top and lower rings

The black powder coated steel perfectly fitted into the kaupapa of the installation, and the only interference applied to its structure was the removal of the top 4 knobs with a grinder. The frame itself was an accidently found object that was transformed into a foundational support for the core ārai. Both the upper and lower rings were covered with undressed harakeke with the basic whakatutu (*vertical twills, weaving pattern*) style, as is typical of the Pacific.

Figure 34: Upper ring, whakatutu in progress

Note. Source: Ngaia, J. Personal collection (2019)

The frame represents a solid foundation, reflecting the ideology behind its construction, as how we live and all we do can be linked to a framework that contains chronological wisdom, and a precise order of alignment. Therefore, the upper and lower rings are the boundaries and foundations of ancient knowledge, our whakapapa. These rings link us to our beginnings, the Pacific, and our Polynesian roots. The spiral ring

attached to the frame descends into ‘Te Tatau ō te Pō’ or ‘Te Whare ō Miru[41]’, which when aligned with the ārai, becomes a unification of knowledge from both above and below this earthly realm.

Kii – kōhatu

Both kōhatu are unpolished and left in their natural state, encased in muka using a combination of raranga, whatu, māwhitiwhiti, miro, and bound with a ‘*here*’. As such, both are left in their true natural condition, and each is uniquely different, not only colour, but in form as well. Within the installation, both were evenly balanced to be suspended at precise points (see Figure 37, 38).

Figure 35: Kohatu Tuatahi

Note. Source: Ngaia, J. Personal collection (2019)

The encased kōhatu represent the ‘kii’ and the grey is a response to the pūrākau surrounding the Kaupapa; the seed of conception, the idea planted to be nurtured and cared for.

[41] Taranaki narrative of how mātauranga was obtained.

This is an artistic, contemporary interpretation of an ancient vessel. Hence, the black represents the mystery surrounding the vessels construction. The black also represents past knowledge, that which is sought after but not always achieved.

Figure 36: Kohatu Tuarua

Note. Source: Ngaia, J. Personal collection (2019)

Construction.

The following images show ‘te ārai ō inamata’, fully installed.

Figure 37: Upper kii

Note. Source: Ngaia, J. Exhibition. Te Korowai o Ngaruahine Trust, Hawera (2019)

Figure 38: Lower Kii, upward view from underneath the installation

Note. Source: Ngaia, J. Exhibition. Te Korowai o Ngaruahine Trust, Hawera (2019)

Figure 39: View of all 3 veils

Note. Source: Ngaia, J. Exhibition. Te Korowai o Ngaruahine Trust, Hawera (2019)

Figure 40: Te ārai ō inamata, Installation

Note. Source: Ngaia, J. Exhibition. Te Korowai o Ngaruahine Trust, Hawera (2019) [this is a placeholder]

Conclusion

As discussed in this exegesis, it is evident that from historical knowledge of past events that the kii did exist. However, there are variations on what it looked like and its purpose, depending on factors such as geographical location of the orator and the narratives shared. Furthermore, narratives stemming from both Huata and Hemana were highlighted as they provided valuable insights regarding how the vessel was utilised, which then informed how I reconstructed my own exhibition design of what this would have looked like.

The materials and methods used to reconstruct the kii were described in chapter three. In particular one key question was highlighted "what would this vessel the *'kii*' look like?" and the discussion contained within this chapter was aimed at answering this question. In short, there were various options suitable for weaving, which directly affected the decisions I made regarding the kii, their purpose and application. Consequently, the kupenga design was considered to be the ideal for the task of reconstructing the '*kii*', as on one hand it allowed for minimal effort, whereas on the other hand, it required careful selection of plant species and leaves. Hence, the harakeke proved to be the most suitable resource.

As highlighted in chapter four, kupenga have a lot of different forms and variance, therefore much experimentation unfolded across the duration of this project. For example, after referring to notes made by Huata and Hemana, there was still some uncertainty regarding the construction and appearance of the kii. As such obtaining a more in-depth understanding of this concept was necessary in order to be able to design and recreate the kii.

Through trial and error, I managed to recreate the kii for its secondary intended purpose of exercise. Consideration was also given to the kii being used as a weapon, especially during the times of migration, as it may have served more than one purpose as shown in the sling stone carrier of Rarotonga.

The findings discussed within chapters one to four contributed to the processes applied within the creative installation of '*te ārai ō inamata*', alongside the influences of Lander, Haegue and Krumm. The marriage of techniques and materials in both a traditional and contemporary application brought forth from the past to the now, and into

the future, a concept that can still be developed by future generations with their own contemporary ideals. '*te ārai ō inamata*' is and always will be representative of what it stands for; a glimpse into both past and present philosophies.

Reflection

Upon reflection, if I were to recreate an interactive installation, I would make it so that one is able to enter the space at different points and enjoy their own individual experiences. Overall the piece would ascend upwards, and the ārai would expand outwards, twisting and turning on different angles, creating a spiral shadow on the floor. Consequently, the design and construction of this installation would allow for a more tangible interpretation of descending into 'te tatau ō te pō', or ascending to the highest heavens on the quest to obtain mātauranga on a larger scale.

Lander, Yang and Krumm each have their own style of similar design, the idea of incorporating metal to create veils, with a combination of techniques into a piece, will challenge my pre-existing skills. I have not worked with metal before, and I can see this project being a laborious task, spanning a 3-year period or more. However, just the thought is exciting.

Finally, although the kii was an unknown element from the past with minimal documentation, this exegesis has hopefully highlighted new possibilities and discussions about the purpose and design of the kii. As well as open doorways for future researchers to pursue alternative pathways and further enhance theories of possible points of origins and recreation.

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