

# Introducing the Atua Matua Maori Health Framework

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## Introduction

Connecting health and Māori concepts of the environment is no small task. Not only has a large amount of Māori knowledge been lost over the years, but what is retained is sometimes jealously protected and intended for only a select few tribal recipients. Likewise, an attempt to conceptualise the range of Māori interpretations of health, may well be inappropriate in terms of encouraging iwi (tribal) definitions. Furthermore, many non-Māori are left wondering how then can they feasibly expect to operate in this domain considering the current status of Māori engagement with not only health but the environment. There is a way forward.

The starting point is to develop relationships between iwi and health promoters in a district by district format. While the information will remain the knowledge of those that produced it i.e., iwi Māori, a sense of sharing and awareness amongst Māori, in terms of education and language retention, is at the highest point it has been in many years. Due to the Māori renaissance to reclaim pre-European authentic function, Māori are making huge gains in reconnecting to environmental knowledge suggesting that increased access to authentic Māori health approaches may be achievable. One of the outcomes of this renaissance has been the development of an approach that keeps the iwi centric nature of health related knowledge intact i.e., the development of a framework that can be populated with iwi specific interpretations. The approach, known as the **Atua Matua Maori Health Framework (Deity to Human Expression)** can seamlessly include non-Māori interpretations of similar environments through Māori concepts i.e., recognition of the importance of waterways, mountains and star navigation. Well known Waikato Māori academic, Tamiaho Serancke states:

*“I believe with regards to Atua Matua, it reminds us that we live in an intrinsic Maori world, underpinned by Maori paradigms of thinking. Therefore any teaching and learning must be imbued with equal spaces of of Maori knowledge, as well as their non-Māori counterparts/Western ways of thinking. The Atua Matua Maori Health Framework refocuses Maoritanga (Maori concepts) at the core, does not ignore other views or values, but indeed invites holistic approaches*

*within the applied practices and protocols of this space, both Takaro (Māori games) and Sport, Fitness, Recreation. "*

The **Atua Matua Maori Health Framework** has therefore been purposefully developed to showcase the variety of potential pathways to understanding the natural world through a Māori lens but with the specifics left to the individual, or ideally, through actioning conversations between practitioner and iwi. In large part the **Atua Matua Maori Health Framework** provides an entry point for health promoters to explain Māori health with a different set of parameters. These parameters have been identified by the framework while continuing to grow the practitioners knowledge of Māori views of the environment and consequent connection to health. Furthermore, the **Atua Matua Maori Health Framework** is an approach that encourages non-Māori health practitioners to engage with the environment in a way that allows their own information to be included alongside suggestions made by the **Atua Matua Maori Health Framework**.

In essence, the **Atua Matua Maori Health Framework** was initially developed as an attempt to provide a set of environmentally-based Māori concepts that could help Māori move from the current deficit mainstream model of health to a Māori ancestral framework. The rationale for taking this step was an attempt to assist Māori in recognising their historical connection to the environment, especially as a form that has sustained Māori for centuries. In addition, the **Atua Matua Maori Health Framework** is more consistent with other Māori practices that have hierarchical constructs. First contact meetings with other iwi (pōwhiri - ritualised formal meeting), have for centuries, begun with acknowledgement of Maori's oldest whakapapa (genealogical) connections to the environment, leaving personal introductions to last. In relation to the **Atua Matua Maori Health Framework**, this would mean putting environmental knowledge before that of the individual with health and physical activity becoming incidental outcomes of environmental knowledge. Also, the **Atua Matua Maori Health Framework** was developed to accede the large amount of ancestral information that hasn't, as yet, been interpreted in terms of health or physical activity processes [e.g., whakatauki (proverbs), mōteatea (ancestral chants), karakia (Māori prayer), haka (performance pieces)]. In short, these processes work as commentaries on how an individual should act to ensure whakapapa is perpetuated. Where the **Atua Matua Maori Health Framework** differs from previous models is its' primary focus on Māori environmental knowledge with an important, albeit, incidental, focus on health and physical activity.

As mentioned earlier, the **Atua Matua Maori Health Framework** is aimed at ensuring each iwi is able to populate the framework with information that is specific to their particular knowledge base, environment or interpretation rather than acquiescing to mainstream prerogatives alone. In this capacity, the **Atua Matua Maori Health Framework** provides a unique opportunity for the practitioner to incorporate and interpret their tribal-centric information, where they deem appropriate, and apply their information through the framework. The ability to decide what information is relevant should be a highly sought after prospect if recruitment and sustainability are to be improved. More specifically, the **Atua Matua Maori Health Framework** provides a much needed increase in the ability of a district to be more self-determining through improved tino rangatiratanga (self-determination) i.e., populating the **Atua Matua Maori Health Framework** with their own whakatauki, mōteatea, haka, waiata, pakiwaitara and karakia.

In a similar way, the **Atua Matua Maori Health Framework** utilises the inclusion of wairua (spiritual) and hinengaro (psychological) related aspects as equally important to those of the tinana (physical). Likewise, the **Atua Matua Maori Health Framework** has other

cultural considerations included, such as the connection between the twelve levels under the 'Atua' column and 'Matua' columns as a reflection of Tāne's (the deity of knowledge) ascension of the twelve levels of knowledge to obtain enlightenment in three baskets (pre-European Māori belief system of the origin of knowledge). The use of a column for **Atua** (environmental deities) connections and a separate column for **Matua** (human form) connections is to show the close association that both **Atua** and **Matua** share i.e., actualisation of environmental knowledge can be expressed through the human form (see later definitions for more information). Also, the design of the **Atua Matua Framework** shows a deliberate attempt to validate Māori metacognitive processes. In this way, the **Atua Matua Maori Health Framework** has ensured that the practitioner can enter the **Atua Matua Maori Health Framework** at any point and work either upward or downward depending on either their current level of understanding of Māori knowledge or where the initiative is being conducted i.e., at a philosophical (atua) or applied level (matua).

The purpose of the **Atua Matua Maori Health Framework** is to foster innovation in health education through culturally relevant interpretations of Māori information on offer e.g., 140 atua (environmental deities), 20 tipua (various mythological beings), 40 different kaitiaki (animal guardians). Although Māori cosmogony 'often' begins with Te Kore (the Nothingness) and leads to the birth of Ranginui (sky father) and Papatūānuku (earth mother), it is the birth of Ngā Atua or environmental deities that represent the template for the origin of the human form and consequent success or failure in various environments. As a contentious topic to some, there has also been a privileging of male information due to the recorders of this information often being male, both as Māori historians or early European ethnographers. From this perspective there are multiple sources that give account of the number of male atua, and more often the 'most well known eight' of Tangaroa, Tāne, Tūmataunga, Rongo, Ruaumoko, Tawhirimatea Haumia Tiketike, and Whiro Te Tipua. In this capacity the **Atua Matua Maori Health Framework** is an attempt to refocus Māori on those aspects, both male and female, that have ensured successful outcomes from their past as models for how to conduct themselves in contemporary situations.

This process has required a move back toward Māori environmental knowledge first and health and physical activity as incidental outcomes of increased knowledge of the environmental deities. After all, upon the decision to leave their prior homeland, it was knowledge that allowed Māori to people the most inhospitable location on planet earth i.e., crossing the South Pacific ocean was the last to be navigated because of its' difficult and often unpredictable nature. In a similar vein, Māori not only survived but flourished in a hostile environment that was early Aotearoa (New Zealand), overcoming environmental challenges not previously experienced in the warmer Pacific climates, eventual intertribal warfare, European prejudice and more recently, institutionalised racism in the selective health processes that Māori are exposed to. However, a more contentious issue for some, has been the acceptance of He Atua/Ngā Atua versus Te Atua. According to the well known Māori master carver and cultural expert, Tukaki Waititi:

*'Ki nga mihinare, he "God" te Atua, he "Lord" te Ariki i mua o te taenga mai o nga mihinare me enei whakamarama mo aua kupu, he kaitiaki whai mana motuhake te atua, he rangatira matua mo te iwi te ariki. I enei wa, e tuki ana nga whakaaro te nuinga o tatou i te kuare ko tehea, ko tehea.*

*'To the missionaries, 'atua' meant god and 'ariki' meant lord. However, before the arrival of missionaries the definition for these words was that atua were guardians of environmental knowledge and ariki was a word to describe supreme tribal leaders. These days most people are ignorant of which is which.'*

As in the situation with Māori and non-Māori historians, religious inclinations were also influenced by male dominated views regarding what information was given priority. However, as I have discussed in other forums, a significant difference exists between He Atua/Ngā Atua and Te Atua. He Atua/Ngā Atua are the providers of a form of science that values the role of environments in ensuring that certain whakapapa is perpetuated. Te Atua has a completely different, set of information parameters. Te Atua is connected to God and other religious content. In this capacity, the term 'atua' has been misappropriated by non-Māori and consequently Māori, to be a term that is secular where it is most certainly not intended to be used in this capacity and certainly not by Māori health practitioners. Incidentally the position postulated by religious supporters that Ngā Atua cannot be put forward as a useful initiative because there can only be one god, may need to consider the roles that are taken up by Saint John, Saint Peter, Saint Paul, the Holy Ghost, the Trinity etc to recognise that there are a large range of similar concepts in many mainstream religious domains. In this format, the **Atua Matua Maori Health Framework** pre-empts a shift back to Mātauranga Māori (Māori knowledge), whakapapa connections and consequent wisdom i.e., from knowledge to enlightenment with health as an incidental outcome. In one sense this stratification of information begins with a narrow focus through one source (Te Kore), widens into many formats (e.g., 140 atua) and narrows back down to an individual. This process has been chosen as a very deliberate process to combat the current mainstream model that begins and ends with the individual. Also the **Atua Matua Maori Health Framework** highlights the connection between environmental atua and the final human form i.e., each individual is the result collection of a large range of ancestral ties which cannot be isolated from the individual. More succinctly, people from the Whanganui area are known for the statement

*'Ko te awa ko au, Ko au te awa'*  
*'The river is me, and I am the river'*

While some will struggle initially to make a connection between the **Atua Matua Maori Health Framework** and health promotion, opportunities abound for creative connections to pre-European Māori knowledge. In its' most discrete form, the **Atua Matua Maori Health Framework** can be taken at any point as an example of Māori environmental knowledge. This knowledge can be further distilled into whakapapa connections. These connections can then be reduced to metaphors that explain the lifeskills opportunities that the knowledge/whakapapa dichotomy offer. Finally the metaphor can be rolled out as a physical representation. One particularly useful example is shown in level VI in the **Atua Matua Framework** atua column: the Multiple Forms of Tāne. In this column, Tāne's name can be studied in so far as over forty different names exist for the form of Tāne, which when undertaken represents the pursuit of Māori environmental knowledge. Consequently, each one of Tāne's names was achieved in a whakapapa related order i.e., Tāne was named for his role in; the separation of Ranginui and Papatuanuku (i.e., heaven from earth), the securing of the baskets of knowledge and the protectorate role of guardian of the forest, and in that order. This naming process also equates with whakapapa or lineage. Fittingly, each of the 24 levels suggested can be reduced from its' purest environmental form into a physical activity action - if the practitioner is capable of a vision that sees Māori knowledge as the conduit by which a physical connection to the environment can be provided, then the birth of reason for being (as Māori at least) can be operationalised.

## Using the Atua Matua Maori Health Framework

While a number of video examples have been provided, along with definitions of each section, a short description of how the **Atua Matua Maori Health Framework** can be used will help explain the function of the framework. In the first instance, a self assessment of one's 'Environmental literacy' starting point is ideal. In essence, this process determines the entry point into the **Atua Matua Maori Health Framework**. Most likely, for many this starting point will be Section XX Matua Environmental Skill Acquisition. Section XX is concerned with the acquisition of health and fitness as a reflection of environmental awareness. The **Atua Matua Maori Health Framework** can support current models being used by individuals or educational facilities and encourages entry into the **Atua Matua Maori Health Framework** at a point most comfortable. However, the **Atua Matua Maori Health Framework** has the added option of being able to engage at a more advanced level that acknowledges the role of mātauranga Māori as the pinnacle of engagement. For example, moving upward from Section XX Matua Environmental Skill Acquisition into Section XVI Matua Interpretations of Time Frames, gives a rationale for how long Environmental Skill Acquisition might last, especially as an authentic measure of Māori time processes.

Following an understanding of a starting point, a practitioner may chose to stay in their selected section but begin to understand the role of atua, kaitiaki or tipua and especially as they influence the selection of discrete skill acquisitions. Once a health organisation is able to transition into the metaphor phase (how an environmental deity provides health related information through it's survival) an understanding of the linkages to other atua, kaitiaki or tipua can be experienced, that is, a movement from whakapapa to metaphor. An understanding of whakapapa can connect to Māori knowledge and its' ability to provide an insight into Māori preferred pathways to health. In essence a connection to a comfortable starting point or a particular body of knowledge can both become starting points. Both forms begin or end in an understanding of the importance of Māori knowledge as a rationale for why a particular area is relevant, and both provide consequent authentic improvements in environmental knowledge. Don't sweat it, start with what 'you' know and expand outward in both directions on the framework from there!

# Atua Matua EOTC Framework Environmental to Individual

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<b>Atua</b>	<b>Matua</b>
1. Atua Celestial, Oceanographical & Terrestrial Connections	13. Matua interpretations of Hau, Wai, Kai
2. Atua as Personifications	14. Matua interpretations of whakatauki, haka, waiata etc
3. Atua as Guardians	15. Matua connections to an environment
4. Atua Male Forms	16. Matua interpretations of time frames
5. Atua Female Forms	17. Matua interpretations of process
6. Atua multiple forms of Tane	18. Matua connections to tinana, wairua, hinengaro
7. Atua disputes as social commentaries	19. Matua Specialist training for specific domain
8. Atua as tribal variations	20. Matua environmental skill acquisition
9. Atua to Tipua	21. Matua regional specialist
10. Atua to Kaitiaki	22. Matua variation at a family level
11. Atua form in Maui, Tawhaki, Rata, Tiki	23. Matua differences at a gender level
12. Atua expression through cultural lens	24. Matua as an individual

# Atua Matua Maori Health Framework

Definitions of the taumata (levels) within the **Atua Matua Maori Health Framework** are provided so that working examples may give some insight into the utility of each taumata i.e., Mātauranga (knowledge) to whakapapa (lineage) to Huahuatau (metaphor) to whakapakari tīnana (physical activity). In addition, a number of video vignettes show discrete connections to the written material. The video vignettes are not exhaustive but meant as practical visual expressions of connecting atua to matua function i.e., environmental expressions as practitioners.

## 1. Atua celestial, oceanographical & terrestrial connections

In pre-European Māori society, Māori cosmogony interpreted the world and universe through; firstly a celestial connection (Ngā Whetū), secondly an oceanographical or hydrographical connection (Ngā Wai), and thirdly a terrestrial connection (Whenua). Interestingly, the first level of understanding a connection through atua is being able to identify the primary environment i.e., star, water or land related. This process places these environments as the oldest ancestral connections and therefore the most knowledgable. So, a knowledge of the discrete aspects is the first essential step in understanding a place in the cosmogony of a Māori world view. This stratification shows that the oldest connections to atua begin with the celestial, progress to the oceans and rivers and end in the land connection.

Not surprisingly, some South Pacific locations have a strong affinity to celestial and oceanographical but a less complex system for explaining their terrestrial connections due to the land ratio to ocean ratio making the water-based information that much more important to their survival. In fact, in some Pacific traditions, it was the mast of Maui's waka that split the sky from the ocean and not the sky (Rangi) from the land (Papatūanuku). The third aspect of huahuatau (metaphor) shows how much of our primal knowledge can be initiated from these environments i.e., the explanations for an individuals' characteristics are decided by the most dominant environmental influence e.g., Tūwharetoa mountains and rivers versus Ngati Pōrou connections to the ocean. The fourth step of turning the metaphor into a physical aspect can be achieved through connections to these places as learning institutes. More specifically, if the initial focus is on the characteristics and personality traits of, e.g., Kiwa, (deity of the Pacific ocean) then a large number of visits to this environment are required to understand; current, waves, colour,

aeration, temperature, depth, pressure and so on. In non-Māori terms. These could be assigned the label of hydrodynamics but in pre-European Māori society, this was to 'know' Kiwa. The outcome of knowing these attributes was that health and physical activity could be obtained as incidental outcomes of 'knowing' Kiwa through the traveling to and engaging with the environment (Kiwa) and not for the sake of some other health outcome. This approach has much traction with Māori witnessed through Māori recruitment to traditional Māori games, waka ama, and kapa haka, where health is also incidental. One further benefit is that each environment lends itself to iwi (tribal) specific interpretations of their local environment i.e., Kiwa may be relevant to East coast Māori but not to West coasters (e.g., Poutini or Tawhaki). In fact, if we were to take it one step further it may be that the character of an environment also determines the character and therefore physiological development of an individual as a reflection of the particular demands that ancestral existence in the one environment has demanded. This approach would suggest, idealistically perhaps, that we should be able to identify which iwi an individual is from, based on what muscularity, stature, skin colouration and endurance to speed dominance is present.

The following link is an expression of practitioners connecting to Parawheunamea, Hine Tupari Maunga, Tawhirimatea, Hine Tuakirikiri. Parawhenuamea is the deity of fresh running water. Hine Tupari Maunga not only represents mountains but she also coupled with Tāne to produce the multitude of rocks (as seen on Routeburn run). Tawhirimatea is the atua of wind and storms but also connects to the human form through the contribution of lungs. During this video 50km was run, with altitude changes an understanding of the interaction between Tawhirimatea as the air we ingest and turn in to physical activity. Hine Tuakirikiri is seen as the great grand daughter of Hine Tupari maunga in the form of gravel i.e., the surface that the group ran across.

<https://www.youtube.com/watch?v=N7544X7U18w&feature=youtu.be>

## **2. Atua as personifications**

This taumata is concerned with a discussion of the varying roles that atua fulfill as environmental representatives. Interestingly, through the process of alienation from this type of knowledge (mentioned in the introductory paragraph), Māori have become disconnected from the roles that specific atua filled i.e., whether an atua is the personification or guardian of an environment. At present many Māori and non-Māori are inclined to assign both roles to one atua but discrete and important differences can and should be acknowledged so that the complexity of reactions to various environments can better be explained. In simple terms, personification is to turn an environment into the incarnation of a person e.g., Rangahua as the atua has the attributes of smooth river rocks in that he has no hair, is steadfast but is known to associate well in a supportive role with Parawhenuamea the deity of fresh moving water (or all water in some areas). Likewise, certain iwi regard this personification process as the expression of mauri i.e., tohu, momo, ahua (description) of all living things. Guardianship on the other hand is to care for and protect an environment but not necessarily look like the form of that environment. In this respect an individual can become the personification of the positive attributes of a place

specific to their district, be it conscious or sub-conscious, so that connections and long life are perpetuated to match the environment that they reflect. One example might be that to come from a mountainous area may be to be recognised as having the traits of wisdom, patience and fortitude whereas to come from a river dominated environment might mean that an individual exhibits the traits of a dynamic personality, that shows perseverance in the face of barriers through taking other pathways but is also willing to have others contribute to a mutual movement forward. The individual may therefore research, evaluate and define what the attributes that they have ancestral connections to, determine the atua that are dominant in that area, and, through either regular visits to that environment or deliberate training in the lifeskills learning opportunities provided, make lifestyle choices based on ancestral ties rather than for the sake of health or physical activity.

In the following video examples are provided of connections to environmental understandings in broad terms i.e., water, rocks, trees and their connection to the human expression of those elements

<https://www.youtube.com/watch?v=MUSRthiRkSs>

### **3. Atua as guardians**

As previously mentioned, environmental deities (atua) reflect an environment or provide protection for a specific place. For example, Tangaroa is often seen as the 'Atua of the Ocean'. A more relevant title for Tangaroa is that he is the guardian of many of the animals that live in the ocean but not the ocean itself, as discussed above, Kiwa is often associated with the Pacific Ocean but perhaps not 'the sea'. In this space we could equally acknowledge the roles of; Hine Moana, Tiwhanui, Kaukau, Hurumanu, Mauhi, Parawhenuamea, Ikatere, Poutu, Punga or even Tawhirimatea's role in the forming of an ocean. As a protector of a particular environment an individual can take on the attributes of protecting knowledge of a certain place by ensuring that others are taught correctly, via a sustainability programme being in place and utilising a programme that ensures iwi specific information is highlighted. This process does not necessarily require an individual to take the form of a particular environment, or even to be from that place, but to take on the role of ensuring the essence of the environment is protected. In real terms of physical output this can be achieved in multiple formats from a health policy developer, health strategist or a physical activity trainer that uses specifically connected environments as the purveyors of knowledge connected to that space. One further concept is that the environment itself is the guardian of human form i.e., the sea provides sustenance and is therefore the guardian toward human survival.

### **4. Atua male forms**

While there are some well known male atua (the eight brothers mentioned earlier), there are an additional 60 or so other male atua that are not well known but also have highly specialised roles. Likewise there are an equal number of female atua that match each of the male atua that are provided, depending, of course on which district is consulted and whether matriarchies are prevalent within that district (discussed below). It is important to

note that Māori society was equally balanced in terms of recognition of the need for a counterbalance to the male form with that of the female. This is most visible in the number of female atua to male atua. However, as a starting point, a large amount of male atua related training examples exist. One example that is relevant is Tama te Uira as the male atua of lightening. Tama te Uira has a connection to several other well known atua that influenced the form of the first wahine (female) as a potential mate for Tāne. Tama te Uira, joined forces with Tāwhirimātea (deity of wind), Tū Kapua (deity of clouds), Te Ihurangi (deity of rain) and Tāwhirirangi (younger brother of Tāwhirimātea and guardian of upper level of the twelve levels of knowledge connected to the cosmos) to form the first blood for Hine Ahu One. This action in turn, represented potential in the form of a liquid i.e., blood (toto). This was seen as an example of a male contribution to the female form.

Interestingly, the wairua (spirit) concept is also an example of the male and female essence with one form of wai (water) being the male semen and the other female wai form being the amniotic fluid to form Wairua (literally - two waters). Additionally, the metaphor of Tama te Uira can be one of speed and reaction to certain stimuli i.e., the metaphor of lightening moving with speed and quickness. In this form, speed is defined as movement from an A to B position whereas reaction time is responding to a sound or movement. Therefore the physical form of Tama te Uira can be a metaphor connection to reaction time training via the various types of lightening that Tama te Uira expresses himself through i.e., either a Tū Kapua ki Tū Kapua type (cloud to cloud) strike, a within Tū Kapua type (internal cloud strike) or a Tū Kapua ki Papatūanuku strike (cloud to earth). Each of these types of lightening strikes highlight a range of speeds, intensities, rarities and volumes. These aspects can be expressed through individual types of training that reflect speed, reaction, power, agility etc. Reaction training is a type of training that requires a response to a stimulus i.e., cloud to cloud versus an individual reacting to an internally generated signal i.e., an internal cloud type strike. Consequently, to match the analogy of cloud type interactions, an externally generated stimulus may come from another person involved in a training exercise that calls for a reaction to his or her voice versus one that is internally generated e.g., led by the individual leading his or her own training or, as in the cloud to earth analogy, having a trainer calling for movement.

The following link is a connection to understanding Tu Kapua and Tama Te Uira, the deities of clouds and lightening.

<https://www.youtube.com/watch?v=uzjqaQMVAUo&feature=youtu.be>

## **5. Atua female forms**

Female atua forms, unlike male generated forms, are less well known and hence given less profile. However, in some areas, (e.g., Ngati Pōrou) equal importance is assigned to female atua as equal entities that are required to balance the male form i.e., the often cited duality of Māori society. Although more research is required in this area, it may be that female health practitioners have been assisting and maintaining the roles of male atua lines without the equivalent regard by males to their female opposites. In this capacity onus may be put back onto male health practitioners to 'repay the service' by highlighting the role of atua wahine. Fortunately, a number of female forms are very useful for the development of Māori health concepts i.e., those that connect to the various types of fire e.g., Hine Tapeka (represents the underworld fires), Hine Kaikomako (represents the conserver of fire but also the Kaikomako is a type of tree where fire is stored) and Mahuika

as the goddess of fire (although in some Pacific islands Mahuika is known as a male). A little known fact is that Mahuika is married to Auahi Tūroa the deity of smoke. Even less well known is that the older sister of Mahuika is Hinenui te Pō (deity of death) and that sometimes she visits with her sister and husband. Herein lies the metaphor for health in a contemporary environment. To engage with the process of smoking cigarettes is to familiarise oneself with Auahi Tūroa. Auahi Tūroa as the husband of Mahuika is visited by Hinenui te Pō at random times, that is, death is close for those that engage with smoke too freely.

Likewise, a large range of environmental connections exist for female atua as they do for male atua e.g., Hine te Uira, as a female atua opposite to Tama te Uira of lightning, Hungaterewai as the mother of a variety of shellfish, Hine Kuku as the female personification of the mussel, Kohurau as the mother of crayfish, Kaumaihi as the mother of the Pipi and Tuangi, all provide counterbalances to the atua Tangaroa and domains that he oversees. Additional female atua hold important positions as the personification of a number of birds e.g., Hinewairuakokako as the atua of the crow and the swamp hen (Pūkeko), Hinekāroro as the gull, and Hinetara as the tern. Birds such as these are well known as the metaphor or tohu (signs) for what type of weather is forecast i.e., indicators for whether it is safe to venture into the environment. Lastly a range of female atua oversee the underworld in the forms of Miru, Rohe, Ruatoia, Ruakumea, and Hinenui te Po.

Why I have provided the names of these atua wahine is testament to the range of female atua that exist. In addition the variety of female atua provide a plethora of options as to how atua wahine can be engaged with as metaphors which can then be translated into physical forms. One example is the connection between Pākura (Pūkeko / swamp hen) and Mahuika. Both are seen as female atua but have dual roles as the female form of the Pūkeko (swamp hen) and the goddess of fire. Incidentally, in one story, the Pūkeko was given the red mark visible on her head by one of the fingernails from Mahuika being pressed down above her beak by Maui for informing Mahuika that he was extinguishing each successive fingernail she gave him. Most interestingly though, is, as the mokai, or pet, to Mahuika, Pūkeko gives a karanga (call) three times a night to indicate the arrival of darkness, the dead of night and the arrival of morning. Hence, Pūkeko can be used to indicate time frames. In fact, in one recent activity Pūkeko was used in this capacity during an extended overnight physical activity effort via a 24 hour mountain bike race. During this race several Māori actively listened for the call of the Pūkeko to indicate time left to ride.

As further evidence of the role of atua wahine, the piece of footage attached below is a link to Parawhenuamea as the deity of water. While the people of Waikato may not recognise Parawhenuamea in their whakapapa rationale for fresh water, at the origin of the Waikato river (in video) in the Tuwharetoa district, Parawhenuamea is often cited.

[https://www.youtube.com/watch?v=Gsw-33jf\\_JQ&feature=youtu.be](https://www.youtube.com/watch?v=Gsw-33jf_JQ&feature=youtu.be)

## **6. Atua multiple names of Tāne**

Tāne has a number of differences compared to his siblings because he has upward of forty names, with a large number of those names connected to the environment, health or physical activity. Some of these names range from connections to life, welfare, prosperity,

sunlight and even how to avoid poor health. Likewise, Tāne not only has a large number of specific names but he also fulfills multiple atua roles as he is at once the pursuer of knowledge, the personification of the forest and the protagonist of the separation of his parents. Interestingly, Tāne is acknowledged as the personification of trees and often birds, however, Tāne is in fact the guardian of birds, a much different designation than personification. Punaweko and Hurumanu are acknowledged as the personification of birds whereas Tāne oversees the actions of birds (mentioned earlier in terms of personification vs guardianship).

In one of these roles, separating his parents, Tāne is named as Tāne Pēpeke which is a metaphor for Tāne with his legs drawn into a crouching position. More specifically, Pēpeke is the position that Tāne took in order to be able to lie on his back with his legs drawn in so that he might force his parents apart and in doing so provide growth and enlightenment due to the letting in of sunlight between his parents. Following on then, the separation of Ranginui and Papatūānuku by Tāne, and more importantly the method that was used by Tāne provide a metaphor through his name as Tāne with legs drawn up, to the triple joint flexion position that preempts almost all sporting 'ready' positions.

A further example of the reach of Tāne's names can be shown through the number of offspring that he produced with a variety of partners in an effort to create a female counterpart for himself i.e., Tāne Matua (or Tāne the parent). From these couplings we can make connections to the origins of various rocks through Tāne procreating with Hine Tupari Maunga. The rock surfaces can be seen as a metaphor for the variety of offspring that were produced through this coupling but more importantly, provides an explanation for mātauranga (knowledge) informing whakapapa (lineage) informing huahuatau (metaphor) that can be turned into whakapakari tinana (physical activity) processes i.e., each rock surface being used as the learning modality for improving running gait by knowing how to change one's running style on different surfaces e.g., running across sand requires different muscle function and strategies versus running across gravel, both are surfaces that came from the coupling of Tāne with Hine Tu Parimaunga.

The attached link below shows some insight into the connection of Tāne to Hine Tu Parimaunga and the representative outcome in the form of different surfaces that we as matua (humans) interact with through our feet.

<https://www.youtube.com/watch?v=y6phGaCCFA4>

## **7. Atua disputes as social commentaries (Ngā Pakanga Atua)**

There are a number of examples of atua being disinclined to exist in the same domain that can be explained through mātauranga (knowledge) and whakapapa (lineage) leading to a relevant huahuatau (metaphor) that can be turned into whakapakari tinana (physical activity). The first example is from one of three major battles which were fought among the environmental deities (Ngā Atua). The first of these great battles (Ngā Pakanga Atua), was the struggle between Tāwhirimātea and his brethren over the separation of their parents, a matter that Tāwhirimātea was unwilling to support (interestingly in some accounts Tāwhirimātea initially was in support of the separation). The second great battle was

between Tāne and Whiro Te Tipua over the ascendancy to obtain knowledge through being the first to obtain the three baskets of knowledge.

The third and final great battle was the retribution sought by Tūmatauenga toward his brethren for not standing up to Tāwhirimatea in the first battle i.e., it was Tūmatauenga alone that stood up to Tāwhirimatea in battle. As a reaction to the lack of courage shown by his brothers Tūmatauenga began eating his brother's offspring as punishment. Therefore mātauranga tells us of the great battles conducted, whakapapa shows an order in how these occurred, and the huahuatau is turning the offspring of atua into food. The interesting part is the process of turning his siblings children into food is a metaphor to explain the origin of nutrition in humankind i.e., the children of Rongomaraeroa were kumara (sweet potato), hence the origin of eating kumara, the children of Tangaroa were ika (fish) hence the origin of eating fish and the children of Haumia Tiketike were (rarauhe) ferns and, hence, the origin of eating aruhe - the root of the fern.

Another instance of atua battles being conducted was between Whiro Te Tipua and his younger siblings; Peketua and Rangahua. At the time of separation of their parents, Tāne was struggling for ascendancy as the brother to separate their parents, one by one the other brothers deserted their brother Whiro as he steadfastly stood against the separation. When only Peketua and Rangahua remained he warned them that if they too left he would scalp them and use their hair as an ornament for his tatua (belt). Peketua escaped in the form of the Centipede but Rangahua was caught and was indeed scalped. Two outcomes of this battle were the origin of baldness in human kind came from this disagreement. Secondly, Rangahua became the atua of all smooth rocks found near streams i.e., a smooth river rock also has the appearance of being bald like a human head. The connection to whakapapa is immediately apparent, however the link to physical activity through mātauranga, whakapapa and huahuatau less so. If we take a look at the presentation of the smooth river rocks they can be used for agility training by running river beds. Alternatively river rocks, when in the supportive role of encompassing Parawheunamea (deity of fresh moving water), can be used for resistance training e.g., carrying a rock while running upstream through Parawhenuamea.

Furthermore, the ongoing battle between Tāne and Whiro Te Tipua has a number of other insights that can also contribute to Māori health development. The dispute between these two was due to Whiro's belief that he alone had the birthright to access restricted knowledge as the senior born brother whereas Tāne who ended the dispute by being the first to secure knowledge, provided a metaphor for learning being an attribute that should be sought by all regardless of age. Secondly the use of the children of Akaakamatua (deity of vines) to attack Tāne was requested by Whiro i.e., Whiro asked his brother to release the Aitanga Pepeke (a different Pepeke compared to the earlier definition in that Pepeke here means to jump or move quickly). The Aitanga Pepeke are the insect battalion that attacked Tāne and attempted to draw his blood e.g., Mosquitoes (Waewaeroa), Sandflies (Namu), Midges (Naonao), Kahu (Hawk), Popoia (Owl) etc. Tāne was able to obtain the assistance of Tāwhirimatea (deity of wind) and the whānau puihi (wind family) that sent the whirlwinds to effectively ground the flying insects. The physical aspect has a number of access points. Interestingly the whānau puihi (whirlwinds), depending on the direction of rotation of the whirlwind, could assist an individual upward to enlightenment or downward to the underworld and death. This process is worth noting in terms of which direction spinning tops should be spun during games so as to access knowledge or to assist the dead in their travels to the underworld (origin of spinning tops at Māori funerals - tangi). Alternatively, depending on which direction of rotation the weather pattern is turning i.e., as a tohu or

sign that can be used to determine whether it is safe to venture outside i.e., anti-cyclone versus cyclonic weather.

## 8. Atua as tribal variations

Iwi specific atua can provide a wide variety of social commentaries from which physical activity initiatives can be garnered. A tribal version of the origin of food combining is one example. In this whakapapa discussion, the Horouta waka (tribal canoe) is returning to Aotearoa when it runs low on food. The waka (canoe) comes across an isolated island (Great Mercury Island) and takes on stores of kumara. However, one elderly women decides to bring on board aruhe, the fern root. Once underway again, the waka is unable to hold a level passage and begins to buck and heave unexplainably. The captain consults with various water-based atua with no change. Upon questioning his crew he discovers that aruhe (fern root) has been stored in the same compartment as kumara. Once the aruhe is removed, along with the elderly women that brought it on board, the waka is able to sail again. In this story a number of lines of information are being expressed simultaneously, albeit subtly.

The first is knowledge about the sailing of the Horouta waka to Aotearoa. The second is about other resources that could be accessed e.g., islands that had food. The third, and most interesting, is the clash that occurred when the mana (pride) of the two atua were placed in the same containment area within the waka resulting in the boat being upset in its sailing path. The metaphor is the appropriate combining of mana atua should be considered i.e., which atua are higher in the hierarchy of birth e.g., Rongomaraeroa above Haumia Tiketike hence the connection to a higher form or quality of food when comparing kumara to aruhe. The physical and contemporary form of this story is a discussion around which foods can be combined in the human form of a 'waka' i.e., should an individual combine certain foods together e.g., seafood with land based food. In essence it may be that the quality of physical activity may be connected to the quality of the food which may be a reflection of the birth hierarchy of the atua connected to a particular food. This process is explained in Māori society where seasonal foods are aligned with seasonal physical activity output i.e., a time for warfare, a time for recreation, a time for planting.

## 9. Atua to Tipua

The shift from atua to tipua is consistent with the hierarchical shift that occurs among atua. Similarly, at a macro level atua begin with celestial, water or land based connections. However, the roles and number of Tipua are indicative of the shift from a wide but ancient connection i.e., across 140 atua connections, to a smaller number of Tipua with highly specified roles. Tipua, as an expression, are those 'myth-like' (for want of a better description) beings that defy classification in the contemporary environmental and animal kingdoms but nonetheless fulfill an important role for explaining the unexplainable in pre-European Māori society. One example, is the role that taniwha (type of river serpent) have traditionally filled. In the Waikato district the Taniwha is used to define an iwi (tribe) but also as explanation for the characteristics of individuals from that district. In recent times, rugby teams in both Waikato and Northland have connected themselves to the attributes and behaviours of taniwha. In the Waikato district, Taniwha have long been associated with the winding river and the existence of taniwha within its depths but also as an analogy for the

large number of chiefs that line its shores. Oftentimes the role of Waikato as taniwha is commented on by other tribes to characterise their behaviour. The behaviour of the taniwha can be aligned with metaphors of strength, fearlessness, the ability to change quickly, a protective role, an explanation for designs used in carving, as indicators for where river flows are exceptionally dangerous and to indicate river levels (taniwha become visible), a name for whales and as a human trait regarding perseverance during difficult times. As can be seen a large number of metaphors exist for how taniwha can be explained, however in terms of health or physical activity, being able to travel to or within the sites of tipua can be used to explain changes in the nature of the environment e.g., on or in the Waikato river.

One further example is a lake in the Hawea (South Island) district that is known for its ability to move. This lake can only be accessed at certain times and only by high level physical exertion. The mātauranga that combines with this tipua is intriguing enough but the preparation over a number of months to access this tipua is the relevant aspect that can assist health in a multitude of ways e.g., a focus on the knowledge of the place being the primary driver with increased fitness in the preparation, the incidental health outcome. The 'types' of tipua are equally intriguing, including the supposedly inanimate e.g., rocks that move, logs that sing, magical bird women, trees that indicate a prior place of importance (e.g., the tie down point of the Tainui waka or a Mapou tree in the mahia district as the reincarnated tree form of the leader of a pod of whales). In essence, the physical form of the tipua may or may not (e.g., taniwha) be present but the opportunities for tribal groups to collectively pursue, develop, and educate their people in the locations, characteristics and behaviours of their naming ancestors represents a large range of potential health outcomes through mātauranga (knowledge).

## **10. Atua to Kaitiaki**

Like tipua, kaitiaki represent a lower level environmental connection compared to atua. Some would question whether tipua or kaitiaki should follow 'tribal variation of atua' however 'real' forms of the kaitiaki in question can be found in the environment suggesting a closer connection to the human form as real forms and interpreters of the environment. A wide range of kaitiaki exist that also connect to the three domains mentioned earlier i.e., celestial, oceanographical and terrestrial. These are; animals that can fly upward toward the celestial connection, those that swim in watery environments (salt and fresh) and those animals that exist on land. Incidentally some celestial groupings are the whakapapa origin of some animals (Ngā Puhī [Northern tribe] connections of certain stars with sharks). With each tau- mata (level), a step toward the human expression of each environment is shown and a step further away from the atua domain is the outcome. In addition, the definition of kaitiaki can be expressed as not only beings that engage with the protection of certain environments but also as the animal expressions of certain environments.

One such example, is the Peketua (Centipede). Centipede is a descendant of Haumia Tiketike (atua of uncultivated food i.e., ferns). In whakapapa terms, Haumia Tiketike begat Rarauhe the fern. Rarauhe is made up of the aruhe (edible root) and the mōnehu which are the spores that create other beings below the fern. From the mōnehu we see the origin of the insect multitudes of which Peketua is one. The physical activity notion of Peketua has a similar basis for which many Crossfit programmes are currently based i.e., core strength through functional fitness. More specifically, if the movements of Peketua are studied and emulated core strength is an incidental outcome of knowledge about the

Centipede. In this capacity the study of Peketua is no different from the study of Grasshopper or Praying Mantis conducted by Confucius in the development of Kung Fu - a physical activity that has had centuries of international recognition.

One further example is the animal representations associated with the shark. The shark is referred to in whakatauki (proverbs) as an animal that one should aspire to be like because of its' natural desire for life at all costs i.e., the shark does not give up when caught but struggles mightily to the death i.e., physical activity for longevity. Likewise the shark is associated with the heavens (mentioned earlier) e.g., the Milky Way constellation is sometimes referred to as the mighty fish, or Mangonui of the sky. The sharks aggression is also used as a metaphor for how one should approach life. In physical terms, the form of the shark can be transformed into improved health or physical activity. One such attribute is the oil from the sharks liver was mixed with certain types of clay to produce coloured pigment that could be used on carvings or on the skin of a haka practitioner. Likewise, the skin of the shark has a number of recognised uses to Māori as it was used to coat implements that needed a resilient, waterproof, form e.g., drums used in protocol sessions and as a material that was used to smooth surfaces such as sanding back wooden weapons. More recently sharkskin has been used as a performance gain for swimming suits because its' denticle surface can improve swimming speed and reduce the ability of bacteria to adhere to the outer surface. These examples show a wide range of connections to whakapapa, consequent metaphor for physical activity and an end result of physical activity or health improvement.

## **11. Atua form in Maui, Tāwhaki, Rātā, Tiki**

Maui, Tāwhaki, Rātā and Tiki represent a large range of iwi centric variations as part atua and part human representations. In this capacity, Maui, Tāwhaki, Rātā and Tiki are the conduit that allows human attributes to reach across the realm of the atua i.e., the oldest known connection to the environment. It should be noted that Maui, Tāwhaki, Rātā and Tiki are only a few of the ilk associated with this domain connecting atua form to human form. Some others known variously in certain districts are; Hātupatu, Ihaka, Wahieroa and Karihi e.g., many in Te Arawa know of the underground channels used by Hātupatu to travel from Whanga Pipiro to Mokoia Island to his rock hideout near Tokoroa in order to evade Kurangaituku the bird woman.

However, for the means of this discussion, Maui, Tāwhaki, Rātā and Tiki have all taken roles that connected the ethereal atua to the concrete form of the human experience e.g., where Maui might be highlighted as the atua form of mortality other iwi might choose to highlight the role that Tiki took in affirming life e.g., the progenitor of the perpetuation of the human form. In one particular example, Maui is associated with the bringing to the surface of the North Island of New Zealand in the form of a giant fish. A lesser known fact is the resting place of Maui's waka (canoe) following the hauling in of that fish is on the side of Hikurangi mountain deep within the district of Ngati Pōrou. The name of Maui's waka, Nukutaimemeha, has been responsible for the drive of Ngati Pōrou descendants to become fit enough to journey to where Maui's waka rests, on the side of a mountain. In this way, the mātauranga of how the discovery of New Zealand and consequent Ngati Pōrou whakapapa example, can be used as a metaphor for how ancestral information can provide the impetus for improvements in environmental connection.

Tāwhaki takes over the role of Maui in other districts but is seen to be achieving similar pathways of discovery on behalf of his human counterparts. As mentioned earlier, Tāwhaki is associated with the West coast of North Island while Kiwa is associated with the East coast as the atua of the Pacific Ocean. Interestingly the associated characteristics of each coast are inherent in the personalities of those who represent them. It is not coincidental that Tāwhaki is associated with the West coast, a coast that is tempestuous and prone to sudden changes. Less well known is that Tāwhaki is the grandson of Whaitiri. Whaitiri, in some areas at least, is the goddess of lightening (as opposed to Tama te Uira). As the grandson of Whaitiri, Tāwhaki embodies the flashes of brilliance and foreboding of change. Again, an understanding of Tāwhaki can be used as tohu for how the ocean may be about to change, witnessed through its behaviour patterns under the guise of Tāwhaki.

## 12. Atua expression through cultural lenses

Atua characteristics and personality traits are explanations of the science of understanding why certain things occur in the natural Māori world. Likewise, in Māori society, culture is used as a means of understanding the natural Māori world as the human counterpart to Ngā Atua. While the immediate sequencing of the atua levels may be more easily understood, the expression of atua form in human action is less clear in terms of 'sequencing'. However, I would suggest that it is in this domain under matua that the largest opportunity for iwi centric interpretation exists i.e., shifting of taumata (levels) to suit the needs of the community.

One relevant example of a cultural lens is the performance measures that are used in contemporary kapa haka (performing arts) performances i.e., ihi, wehi and wana. Ihi in this instance refers building up of courage to perform or enter a challenging situation. Wana is the judging or interpretation or fear one feels for another person experiencing Ihi. The third aspect of wana is judging the overall interaction between ihi, wehi and wana and how the performance was received. Consequently, these concepts can be transferred into a number of contemporary sporting processes also.

One example that has been trialled was the use of ihi, wehi and wana in an alpine context. On this occasion a university physical education class were taken into a South Island alpine environment to 1) look at the whakapapa (Māori origin) of snow, 2) recognise the tohu (signs) provided through birds in an alpine context, 3) assess the effectiveness of pre-European Māori alpine clothing compared to synthetics and 4) attempt to use ihi, wehi and wana concepts to assess snow boarding and skiing ability.

In the process of using this particular cultural lens the class numbers were structured so that the students were in groups of three. The students were put in groups of three so that one class member could experience the action phase as the practitioner i.e., the student was instructed to place themselves in a position that was intimidating both psychologically and physically but one that the student believed they had the capacity to complete. In this phase the student would take their snowboard to the edge of a downhill pitch that was only just within their capacity and ready themselves to launch i.e., experiencing the feeling of building one's 'ihi' to take on a challenging situation. The second student was instructed to position themselves half way down the pitch that the first student had selected, and, assess their performance beginning with their mental preparation on route to the downhill pitch, immediately before the process was begun, during and immediately post event i.e., experiencing the building of 'wehi' to show an awareness of the process and to feel fear for

the other student as the outcome was still unknown. The third student was the reporter that gave feedback to both of the other two practitioners, from arranging themselves into ihi, wehi and wana groupings to returning back to the building for the debrief. In this process the contemporary physical activity of snowboarding has been indigenised to make it relevant to Māori by assigning a cultural lens by which physical activity can be interpreted.

The video vignette link given here is an example of a cultural lens overlay in the physical activity of mountain biking. This example shows that almost any contemporary sport can be seen through ihi, wehi and wana concepts.

<https://www.youtube.com/watch?v=x-FExDYtj0s>

### **13. Matua interpretations of Hau, Wai and Kai**

Interpretations of Hau (breath), Wai (water) and Kai (food) represent a similar connection at the tangata (human) level as those described in the first level of atua connection i.e., Ngā Whetū (stars), Ngā Wai (water) and Whenua (land). In this taumata (level); Hau, Wai and Kai can be explored as a means of improving Oranga (health) in the human form but more importantly from a whakapapa perspective of hierarchical importance. This means that in order of whakapapa relevance; kai (food) contributes to oranga tangata (human health) but can be withheld for several weeks before the individual risks death, Wai (water) can be withheld for several days before death becomes imminent, however Hau is required within minutes before death becomes likely.

Interestingly, mainstream health practitioners are also becoming more aware of the potential of breathing techniques contributing to overall health choosing training in breath control over surgical intervention. Also, Eastern philosophies regarding the impact of correct breathing as the first skill learnt in improving health have been in existence for several centuries e.g., Yoga, Meditation. The opportunities for a higher regard for Hau and especially in terms of Hau ora are overdue and not often acknowledged. In some districts Hau is referred to as an essential spirit and traditionally was enacted through rites of tohi (purification) - signaling an awareness of the importance of Hau in terms of health. In other rites, Hau was associated with upper level interactions through Hau being able to deliver information to Ngā Atua in the upper heavens carried on the 'winds'. At a primary level, Hauora (health) intervention has been interested in physical activity or nutritional intervention whereas little questioning has been conducted into the semantics of the word Hau Ora as the identifier of the importance of Hau.

Likewise, further opportunities exist for increasing the profile of wai as a source of healing. One way of considering the importance of wai is that many healing opportunities exist via the human expression and connection to wai i.e., sweat, tears or immersion in the ocean as health enhancing opportunities, at a psychological level at least. Kai as the third option has the potential to deliver health through an understanding of the importance of whakapapa in the foods that we choose to eat. More directly, Māori are unable to whakapapa (lineage) a connection to sugar, gluten, alcohol, beef, corn syrup or caffeine and yet the majority of foods ingested have one or more of these within their makeup. An understanding of the atua connection to food (mentioned earlier) and expression of those

atua through food may have some significant contributions to improving Māori health in an authentic fashion.

#### **14. Matua interpretations of whakatauki, haka, waiata, mōteatea, karakia, pakiwaitara**

This level of matua interpretation shows a very clear shift from atua into the human or matua domain. In this taumata connections to various environments i.e., atua, are provided through whakatauki (proverbs), waiata (songs), mōteatea (chants), pakiwaitara (stories) and haka (performing arts). These forms are metaphors for the role of health, physical activity or lifeskill development opportunity. Interestingly, a large amount of research has been completed regarding the use of whakatauki, waiata, mōteatea, pakiwaitara and haka in terms of history, language retention and education but very little research has focussed on the interpretation of these aspects in terms of physical activity. Some of these forms of environmental interpretation have been in existence before Māori arrival to Aotearoa and as such they are social commentaries on the values that were relevant at the time and give some insight into the health and physical activity priorities i.e.,

*‘He Kākano Ruia mai i Rangiātea’*

*“I will survive forever for I am a seed of Rangiātea (the previous homeland of Māori)*

At this point it would also seem pertinent to be reinstating the use of these processes as social commentaries and especially in terms of health and physical activity. One example might be the use of whakatauki to explain contemporary health and physical activity issues e.g.,

*‘Ahua Niho, Ahua Manawa’*

*Health of one’s teeth is an indicator of cardiac health.*

Another example of whakatauki might be the inclusion of information that highlights the risks of Facebook reducing kānohi ki kānohi (face to face communication). One particularly relevant whakatauki in the use of atua based information is:

*‘Te Torino haere whakamua, whakamuri’*

*At the same time the spiral is going forward it is going back’*

This whakatauki outlines the importance of utilising information from our past and future in order to survive. Another interpretation is Haka and karakia (self talk) as they represent very interesting interpretations of the sport psychology process of performance preparation. Both haka and karakia include positive self talk, attentional control, imagery and concentration as sport performance preparation. In the right context, to practice karakia may be to practice sport preparedness. In essence, a review of whakatauki, waiata, mōteatea, pakiwaitara, karakia and haka to determine what health and physical

activity lifeskills opportunities exist is yet to be 'fully' conducted but represents some useful leverage in the pursuit of authentic processes.

Below is a contentious piece of footage regarding the commercialization and commodification of cultural property. In this piece of footage Adidas have very cleverly connected haka to sport and selling clothing to engage with rugby. However, those aspects aside, the footage shows a very real connection between haka and psychological manipulation of a situation to improve a teams' outcome. This process is well known in Maori society and suggests a much earlier understanding of visualisation and self talk when compared to the more recent postulations in sport psychology circles.

<https://www.youtube.com/watch?v=GInerC8gtZA>

## 15. Matua connections to an environment

The selection of a specific environment (atua) and how that environment lends itself to health or physical activity highlights the matua or human perspective. For example, a matua connection to an environment might begin with a naturally recognised affinity for a particular environment (e.g., individuals that call themselves 'waterbabies') or through a connection that has been imposed through living in a particular environment (e.g., in an alpine environment). One particular Māori scholar, Te Miri Rangi suggests that

*'Fundamentally, only local knowledge would be the most compatible for individuals. The framework would achieve the best out comes if structured according to the individual's whakapapa....through this framework we are able to utilise Mātauranga at one level for the expression of whakapapa, use metaphor at the next level, and perform action that reflects all three: all connected through kōrero taketake (foundation language). This would create a whole other level of sequencing and highlight natural relationships to explain the rationale for performing particular actions.'*

In terms of a whenua based connection choosing a soil type to train on (e.g., clay, rock, sand) can also determine the level of health outcome achieved. More specifically, developing a body of mātauranga (knowledge) connected to a particular environment through an experiential interaction e.g., understanding Hine Oneone (goddess of sand) by running sand dunes can result in improved power training to lift up one's feet over a sand dune but also improves one's knowledge of a particular environment simultaneously. The whakapapa connection can be interpreted as Tāne procreating with Hine Tupari Maunga to produce Tuamatua (atua of all rocks and stones) followed by Rangahua who personifies smooth river rocks, Makatiti who personifies sand and gravel and Rakahore who personifies sea rocks. The metaphor is the use of different surfaces to improve running gait i.e., to improve running form, an understanding how a persons' feet interact with the whakapapa of rock, sand, or dirt surfaces.

Therefore, from a physical activity perspective, to encourage a whakapapa based programme that visits; dirt (oneone), sand (onepu), clay (keretu), alluvial soil (kenepuru), sea sand (onehunga), lumpy ground (onewawata), sea rocks (rakahore), river rocks (rangahua), and gravel (onepakirikiri) could be the focus rather than how many kilometers are run on a road surface. Although, a further 20 varieties of soil exist, the nine mentioned are those that could be easily accessed in most districts or at least five so that a Monday to Friday of running based on seeking and adjusting running gait to cope with the different demands of the surface. This approach could be seen as gait analysis or whakapapa analysis with equal success. Likewise, developing a connection to wai (water) can develop incidental physical activity outcomes. One example is to use a large rock as a weight and to train at running underwater to develop the ability to function underwater while engaging with strenuous physical activity. From a whakapapa perspective the ability to recite genealogy while performing kapa movements achieves a similar outcome with a mātauranga (knowledge) function included.

## **16. Matua interpretations of time frames**

This particular taumata (level) represents an often overlooked aspect concerning the rationale for how long a particular type of physical activity or health initiative might last. At present, a number of health initiatives choose random timeframes for how long they should be conducted e.g., a six week boot camp, a twelve week weight loss programme. This taumata is aimed at choosing timeframes that can be validated via Māori interpretations of time. At the celestial level, star movements have long been used as measurements of time i.e., daylight to daylight. In mātauranga Māori terms, the movement of Rā Kura (sun) during the day and Te Ikaroa (the Milky Way) during the night have been useful measurements of time i.e., due to the consistency of these two celestial bodies, the time during the day or night can be estimated. However, it is when we want to measure the smaller time frames that some challenges arise.

Some ingenious time measurement processes exist that connect mātauranga (knowledge) to whakapapa (lineage), to consequent huatautau (metaphor), and to whakapakari tinana (physical activity) connection. One such example is through a connection to wai (water) in the form of a wave, which can be manipulated further depending on the steepness of the beach i.e., a steeper beach may cause shorter wave action. Logically, this type of time measurement is useful for interval sprints timed to align with each successive breaking of a wave (short time interval). In whakapapa terms, a wave might be the expression of Kiwa (deity of the Pacific Ocean) but as a physical activity it is an interval training measure. Wave speed in deepwater ocean crossings was also used to determine current direction and speed. Alternatively, for medium length time measurements, the destruction of a spiders whare pungawerewere (Cob web) can be a useful measure as the time taken for the spider to rebuild the web may be a 4 hour process. Lastly, a measurement of a few days is something that hunters are well accustomed i.e., the degradation of plant life (Haumia Tiketike as atua of wild plants) might show that a fern takes seven days to turn white from green as a measurement of time. A wide range of environmentally connected options are available that give relevance at an environmental, ecological, cultural and physical levels regarding how long, or more importantly how a timeline is chosen for a particular activity.

Below is a piece of footage that shows a connection to Haumiatike (deity of uncultivated food), the degradation of plant life and how that degradation can be used as a

measurement of time. A multitude of time shifts have been provided above and many more remain to be created with some innovation in the field

<http://youtu.be/hKG06l8cJQ>

## 17. Matua interpretations of process

This taumata is of particular interest regarding not only what time of the day an initiative is conducted but also how that initiative is conducted i.e., what process is chosen. More precisely, what structure a particular training initiative may encompass can be aligned with the particular environment that it is conducted within. In this example we can look at the mātauranga associated with the interaction between Te Aitanga Pepeke and Tūmatauenga i.e., the clash between the insect world and the human world. In this example, mātauranga Māori tells us of the incident between Tūmatauenga (deity of human kind and war) and Namuiria (sandfly) in which the spiritual essence of Namuiria was damaged by Tūmatauenga to the extent that Namuiria did not recover. As a consequence Namuiria vowed vengeance by attacking all human kind from that point forward, a process that we experience regularly when sandflies bite.

In addition, Namuiria's brother, Waewaeroa (Mosquito or literally - long legs) also agreed to assist in retribution, hence the biting of humans by mosquitoes. The metaphor is in the different times of the day that the brothers pepeke agree to attack, Waewaeroa at night and with only two or three warriors with little noise and Namuiria during the day, en masse and with a large amount of buzzing. The physical activity interpretation is the options of training in the darker hours versus daylight hours. During early morning and night time, the movement of Waewaeroa (mosquito) suggests a process that values and utilises one on one training conducted with little noise to match the process provided from the ecological context. During the daylight hours however, physical activity is in the function of Namuiria so that exercise can be practiced in large numbers and with as much noise as is desired, again to match the process used by Namuiria. In this fashion, a physical activity process is garnered from our oldest connections to the environment, explained through mātauranga Māori, shown through whakapapa connections, expressed as the huahuatau or metaphor for when and how we should conduct ourselves and displayed in the concrete context of one on one training in the darker hours quietly or in large numbers during the day and with no noise restrictions.

## 18. Matua connections to tīnana, wairua, hinengaro

This area is concerned with expressing physical activity or the pursuit of health in terms of a physical, psychological or spiritual dimension. Ideally, any health or physical activity initiative would aim to influence all three aspects of the individuals being i.e, tīnana, wairua and hinengaro, however in the current format, even within kauapapa Māori driven organisations, tīnana or physical health is the focus. It is worth reiterating that the sequencing of the Matua form of the framework is laid out as a function of moving from Atua expression to human expression with less esoteric ethereal content and an increase in practical contemporary application. The **Atua Matua Framework** is the expression of one interpretation but each organisation or group can and should define the space they

are working within through adjusting some of the Matua taumata to reflect there specific needs.

In this example, there is little question that in the past (and still to this day), Māori began formal greetings with three repeats of a welcome e.g., Tēnā koutou, tēnā koutou, tēnā koutou, to acknowledge the importance of the total human form i.e., a holistic approach that addresses the physical, spiritual and psychological form in front of them. Therefore, any Māori health initiative that does not attempt to assist the whole person in all three capacities is destined to be 1/3 successful when it is aimed at the tīnana or physical form only. Likewise, wairua and hinengaro need equal consideration to that of the tīnana. This prospect may be somewhat easy to include in hinengaro terms as sport and exercise psychology from a Māori perspective have a large part to play e.g., a tīnana physical connection in a gym context might be to lift a heavy weight, a hinengaro psychological process might be to lift a small weight for a long period of time. In terms of the wairua of physical activity and health there is less of a clear pathway to determining what this process might encompass.

At a personal level, the term wairua can be connected to the semen of the male and the amniotic fluid of the female joining to form Wai Rua. More pertinent in this case though may be the wairua of place i.e., that through interactions with specific environments we engage with the wairua of that environment as the environmental deity. In effect this might be better explained as the sharing of the wai of the human form with that of the environment that we connect with to form an alternative form of wairua. In other words the mixing of the saltwater of Kiwa, Hinemoana or Tangaroa with the saltwater of the human form i.e., tears and or sweat. This new connection has not been explained in terms of what the human form looks for when seeking to connect to the environment but goes some way to beginning a deeper alternative understanding than is currently experienced i.e., using the above analogy to explain the inexplicable human attraction to the healths environment or a surfer's attraction to the ocean.

## **19. Matua specialist training for appropriate domain**

The following several taumata show a closer affinity with each passing level from the atua environment into the human 'Matua' form. From above we can ascertain the importance of including the three domains of tīnana, wairua and hinengaro and especially through wairua to a particular domain. This taumata is concerned with specialist training to exist in a domain or district that is particular to the area that the individual can show a whakapapa connection to. Interestingly in a mainstream context the move toward genetic mapping for training performance is a very recent area of interest to strength and conditioning providers. In more detail, specialist training for appropriate domains is recognition of the genetic material that has been selected by specific iwi through connection to highly specialised domains e.g., the ability to dive to great depths by women of the Ngāti Pōrou people as a genetic attribute selected to ensure iwi survival. Likewise there is cause for pondering the likelihood that each Māori individual we see is the product of the environment that they whakapapa to i.e., each district has perpetuated whakapapa (lineage) through a thorough understanding of the environment most pivotal in their groups survival.

Likewise, a coastal tribe will, subconsciously or consciously, know the personality traits and characteristics of the ocean deities more comprehensively than that of whenua deities

because their very lives depended upon this knowledge to prosper and sustain whakapapa. Those that were incapable of learning the required deity information ceased to exist and were selected out of existence. In a more intellectual process, one would also assume that the very physiology that we see in Māori communities has also been determined by the environment from which they come i.e., the length of the torso, stride length, skin colouration, overall height, agility versus muscular endurance. All of these attributes may have been already determined by the environmental deity deciding what was demanded to coexist in their closest environment. This process has occurred in other tribally based groups worldwide e.g., Tibetan ability to move across snowfields has resulted in large feet much like the body mass of Inuit people being small to retain heat. At its' core, this taumata is concerned with a review of the mātauranga of where an individuals' whakapapa connects to, using body type as a metaphor for the value that the environment has place on that form and actualising the metaphor by training in environments that are best suited to the body type that has been determined by whakapapa i.e., Māori genetic mapping for training performance.

## **20. Matua environmental skill acquisition (fitness in the human form)**

The acquisition of environmental skills or fitness as a consequence of being closest in whakapapa to certain environments (knowing how to survive in certain places), is already explained and pursued in mainstream processes by both Māori and non-Māori i.e., strength and conditioning training. However, Māori are currently questioning the relevance of physical activity for the sake of physical activity without the context of a fundamental knowledge base that authenticates the process i.e., Māori need to answer 'why' should we engage with fitness training before being told 'what' should be attempted. In addition, the provision of a rationale that is consistent with Māori aspirations i.e., mātauranga (knowledge) first, whakapapa (lineage) second, huahuatau third (metaphor) and whakapakari tinana (physical activity) last, also play a large part in environmental skill acquisition (a new term? Enviro-physiology).

At present the argument for engaging with physical activity is that if an individual doesn't, poor health will ensue. Not surprisingly, this approach removes the ability to be self-determining and consequently does little to encourage Māori toward strength and conditioning. Little wonder too that the health statistics of Māori continue to deteriorate. Unwittingly, Māori continue to engage with soulless exercise in the hope of avoiding Diabetes or Heart disease with little success, most probably because no other alternative that is acceptable to Māori consciousness exists. However, at another level, the ability to engage with specific health enhancing practices must be engaged and as such can be achieved through atua iterations of: power training, flexibility improvements, muscular endurance development, aerobic endurance development, muscle coordination, agility awareness, muscle recruitment balance (as a left right process versus consecutive muscle order firing patterns of muscle coordination), speed enhancement and reaction time training.

Interestingly each of these tasks can be connected to the **Atua Matua Maori Health Framework** with multiple outputs possible i.e., mātauranga first, whakapapa next, a consequent huahuatau (metaphor) connection and the whakapakari tinana (physical) expression of the aforementioned domains. For example, an individual may develop agility through mātauranga connected to the ocean. From this origin we can look at the whakapapa of Tangaroa (Ocean animal deity) to Poutu (deity of carving), Punga (deity of

reptiles) and Ikatere (deity of fish). In Ikatere we see the origin of the various fish types we find in the ocean (whilst Poutu is connected to carving and Punga to reptiles). In particular we are interested in the characteristics of the Kahawai (type of fast swimming fish). The Kahawai, when threatened uses its speed to evade danger, a trait that is copied by its' young to avoid an attack- er. Here we have the metaphor for the development of agility i.e., to avoid death the young Kahawai stays close to its' parents when the parents move. The physical activity form is for one individual to place their flat hand on the shoulder of another so that if the leader or matua Kahawai should change directions, then so will the follower or young Kahawai. In this example we see agility being developed through whakapapa obtained from the ocean i.e., move with the agility of the Kahawai in the human form, and, be more likely to survive.

## **21. Matua regional specialist**

The following, final four taumata (levels) 21 to 23 have a host of variations available, each of which are at the discretion and innovation of the health or physical activity practitioner. In this taumata we are focussed on the individual becoming more coherent in the language of their environmental differences e.g., the Tūhoe understanding of the forest versus a Waikato understanding of the forest vary widely but the development or awareness that differences exist provide a training opportunity to experience a variety of environments. It would not have probably been uncommon for an iwi to know where a people of a particular district are from based on how they move i.e., their environment has placed demands on body type and knowledge stores to ensure whakapapa to the point that they are visible embodiments of whakapapa. More specifically, from an outsiders perspective, a group swimming in a river may reflect the movement of the kaitiaki of the river they are associated with e.g., the river rat or kiore awa and more importantly because of that kaitiaki's success in that environment.

It would seem at present that Māori are prepared to have physical activity colonised to the point that there is no questioning of whether, for example, 'the freestyle swimming stroke' is a true and accurate reflection of what ensured whakapapa in a Māori context or whether we go about following the swimming instruction obtained from the USA because we have become disconnected from the knowledge that has helped maintain kiore awa (river rat) whakapapa for the last several centuries. Also, the collection and dissemination of iwi centric processes used for connecting to similar environments provides a useful platform for growing a body of knowledge, for example, ways to swim in a form most well known to a particular iwi. This could mean that at national events such as 'Iron Māori', to be a true reflection of Māori training processes each group of 10 or 20 swimmers entering the water should be identifiable by the 'way' in which they swim e.g., a Rāhui Pōkeka (Huntly) individual may swim in the form of the Kiore (rat) but an individual from Te Paina (Mercer) some distance further down the river may swim in the form of the Tuna (eel). The attributes of iwi centricism have been sidelined as peculiarities or novelties but may be the very core of understanding how to sustain effort and encourage recruitment at an iwi hapū (tribal and sub-tribal) level.

## **22. Matua variation at a whānau level**

At a family level it is interesting to note that particular skill bases have developed beyond those around them so that they become the authorities on particular situations that demand fine motor skill responses e.g., rescuing a fisherman who has been washed off the rocks in an area where local knowledge is key to rescuing the individual. Many of us know who those particular people are in our communities and those that have the requisite skills. However, very little of this information is acknowledged to ensure that these environmental specialists continue to be supported. More specifically this domain is interested in the development of particular locations within specific environments as knowledge particular to a whānau group. These could be skills such as; knowing the placement of rocks at the mouth of a harbour, knowing protection sites from poor weather in alpine environments, understanding weather tohu across specific lakes etc. The development of this knowledge ensures that the whakapapa of whānau (family) closest to that place are protected from the risks of interacting with that space as whānau or being able to assist those that venture into those places as manuhiri (visitors). One particularly well known example of the ability to care for others in risk laden environments was maintained by specially selected whānau members that could guide visitors through the thermal areas of the Whakarewarewa (thermal) district. It is important to note that this does not mean the dissemination of whānau information but the visible and overt celebration of whānau expertise within that district.

## **23. Matua differences at a gender level**

As above, this area highlights some of the traditional connections to particular activities that have become specialist fields in the practitioners domain e.g., Ngati Pōrou women being specialist seafood gatherers, a long line of Te Arawa women being known as guides through the thermal areas of Whakarewarewa. In essence, this taumata celebrates the idiosyncrasies of the female form versus the male form. This taumata demands further research and experience into the skill bases of the past to see what has been passed on from mother to daughter or father to son. Much like the female pearl divers of Japan, this area needs much more delving in to but hints at a large body of knowledge that could assist Māori. The vision here could be the development of wananga into the domains atua wahine and atua tāne as expressed through the matua form e.g., recent focus on Tāne at Wananga o Aotearoa (Māori University).

## **24. Matua as an individual**

This final taumata is important as the final level in 24 as opposed to being the first taumata offered in many mainstream models and certainly as the central aspect in most Māori health processes i.e., 'Its all about Whānau'. It is worth considering that there have been a large number of other whakapapa related connections that had to take place before the role of the current generation of Māori were exposed to the world as it exists now. For example, maunga, awa, whetu, whenua, all have been here for millions of years. To think or suggest that the current crop of Māori representations should take right of position in a health framework is not cognisant of the starting point from which we all originated. Fundamentally, why would ancestral Māori supply contemporary Māori with such elaborate

stories, knowledge, wisdom and enlightenment if the intent is not to use it. In addition, some would suggest that putting the human experience first is privileging those that have not proven themselves or at worst, hints at anthropological arrogance over ecological resilience. Having said that, this framework is intended to cause a wider range of considerations that may add alternative processes to what contemporary Māori are currently experiencing. It may be that the shift to mātauranga Māori first, will allow a focus on the strength of the environment to survive despite all best attempts to control and denigrate those oldest of Māori ancestors. Through a shift that starts with the celestial, oceanographical and the terrestrial we allow a strength-based outcome that removes the current hangups about poor health statistics and shifts Māori into a space of getting a foothold to begin realising their potential. The shift to a mātauranga stance first, followed by a whakapapa reflection with a relevant metaphor that can be turned into a physical activity form allows the shift away from a focus on what Māori are believed to be failing in to one that focuses on what Māori were the masters of i.e., understanding the characteristics and personality traits of atua that ensured their progeny stood a chance of surviving.

This final piece of footage shows a connection to one of our oldest but most important life sustaining atua -Tawhirimatea

<http://youtu.be/7ObzHwx6GAo>