
Kapo, Ka Pō Ka Awatea¹

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Abstract

New Zealand designer Stuart Foster and artist Kura Puke worked with digital technologies to create an animated semblance of a revered Māori *taonga* (treasure). The collaborative objective was to create portable artworks that contribute to new opportunities for visibility, modes of engagement, and revitalised presence within both the *taonga*'s community of origin and viewers across time and space.

In commemoration of a *tauīhu* (prow of a war canoe) that was included in the landmark *Te Maori* exhibitions in the United States (1984-1986), two artworks were created. *Tira Taonga* (2015) presented an audio-visual animation of the *tauīhu*; a reflection of the culmination of cultural protocol and technical applications that ensured understanding and agreement by the *taonga*'s guardians and artwork participants in investigating further digital processes and expressive iterations. *Te Mauri* (2016) developed the *tauīhu* animation from a two-dimensional flat surface into a three-dimensional space. *Te Mauri* was comprised of a hollow museum case in which a holographic *tauīhu* slowly appeared in a life-like illusion, alongside vocal ceremonial expressions.

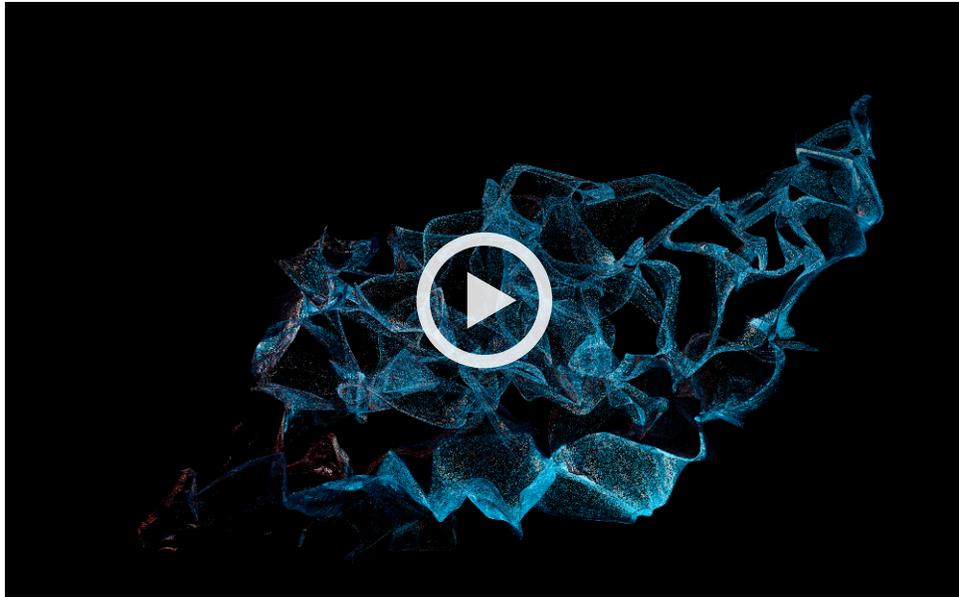
In a virtual revisit of the *tauīhu* to New York in 2016, *Te Mauri* sought to create an experience rejuvenating the memory of the *taonga*, the *Te Maori* event, and the elders who facilitated its realisation. In an artistic expression including a digital medium, *Te Mauri* represents *taonga* as a potent force of memory, its cues, agency, and continuum revealing the enduring momentum of Māori knowledge that integrates new experiences of *taonga*.

Keywords: Māori art, *taonga*, digital cultural heritage, *mātauranga* Māori, digital light technologies, memory, *Te Maori*

*Ka warewaretia e tatau
He aha rawa ngā kōrero aha atu rā
E hono a wairua, ka maharatia ake e tatau²*

*For all that is said or done
What we remember is how it made us feel*

Figure 1. Stuart Foster and Kura Puke with Te Matahiapo. Audio visual clip for *Te Mauri* (for projection within the cabinet). Audio: Kurt Komene and Hinemoa Edwards.



1_Te_Mauri_1080.mp4, duration 2 mins.

Vimeo: <https://vimeo.com/258751410/8b363b5239>

Te Mauri: An Artwork

From a wide, dark, empty display case *karakia* (chant) becomes audible; a male voice is recognised through the depth and timbre of words flowing out in an undulating incantation. The listener is taken on a spatial journey; beginning in the universe through the sky realms connecting to land, traversing the coastal tides, the seas, and out to the oceans. From there the mind alights to the concept of *tauihu*, a figurehead for travelling vessels of knowledge, and *mana* (authority). The clarity of intention and capacity is implicit within this oration—the *atua* (personification of Māori world view) and *tupuna* (ancestors) are present.

As the *karakia* concludes, a form begins to emerge from within the space, a high definition image of a *tauihu* reveals itself. The *tauihu* is bathed in blue light—illumination and shadow bringing into focus a sense of weight and solidity, enhancing the surfaces, texture, patterning, and traces of red-ochre hues.

A melodic *maioha* (call) follows; a female voice in lilting pitch and toning,

bringing texture to words and vowels. The image begins to slowly unfurl, wavering, folding out into fluid spiralling forms, dispersing into their smallest parts. Pixels, in soft vaporous whorls, twinkle with assuredness of the night sky. In alignment to the concluding *maioha*, the movements reverse, the stardust begins transforming back to the *tauihu*. Fading into darkness, the cabinet emptiness resonates with the inception of an organic, human, sensory experience.

This is a description of experiencing *Te Mauri* for the first time. The holographic image—an illusion of a real object—becomes present, in a form which dissolves to reveal perhaps its true self—its *tauihu* essence—as illuminated points of light. Alongside the voices in ancient incantation, visual symbolism elicits memory, emotion, and wonder. Both ephemeral and grounding in its effect, *Te Mauri* offers another threshold for new ways of engaging with *taonga*—digital technologies—to see how, or if, the virtual, *wairua*, and other unseen qualities may reveal themselves through these effects.

For this article, *Tira Taonga* and *Te Mauri* are defined by *mātauranga* Māori (Māori knowledge) that may reflect or offer an access to teachings passed down from ancestors and elders.

Figure 2. Stuart Foster and Kura Puke with Te Matahiapo, *Te Mauri*. For *Trigger Points* [group exhibition], Palitz Gallery, Joseph I. Lubin House, Syracuse University, New York City, US, May 19 - June 30, 2016. Photo: Kura Puke.



Introduction

This article delves into the inspirations for these artworks, *taonga*, and aspects of their underlying knowledge. The legacy of the 1984 *Te Maori* exhibitions continues to impact our contemporary experience of *taonga*, *mātauranga* Māori, and new modalities for aesthetic experiences that add to our understanding in our lives here in *Te Ao Mārama* (The World of Light). *Mātauranga* Māori ‘refers not only to Māori knowledge, ‘mātauranga’ encompasses not only *what* is known but also *how* it is known—that is, the way of perceiving and understanding the world, and the values or systems of thought that underpin those perceptions’.³

While *taonga* are entities in their own right, these ‘treasured possessions’ also have the revered role as holders and communicators of knowledge. Through the socially-activated presence of *taonga*, understandings defined by *mātauranga*

Māori are integrated within the lives of their communities. While adhering to the fundamental values that sustain environmental and cultural resilience, Māori knowledge continues to grow, extend, and expand through use of digital technologies. Since the time of *Te Maori* and preceding generations, digital technologies have become increasingly entwined in the social and cultural landscape, offering different experiences in engagement with *taonga*. Language, ceremony, and creative endeavour continue to nurture and enrich Māori knowledge, guided by cultural processes and protocol. Where knowledge is developed and expressed through the visual, aural, and performing arts, digital technologies are neatly enfolded within *mātauranga* Māori.

Mātauranga Māori is based on frameworks that function to explain the origins of life and cyclical processes of which underpin Māori philosophies. The creation phases begin in *Te Kore* (The Void), the emergence of ‘potency and potentiality’ through *Te Pō* (The Night).⁴ From these unseen realms, *Te Ao Mārama* manifests as the light from *Te Rā-ngī* (radiant Sun Father) and life from *Papa-tū-ā-nuku* (Earth Mother). These phases are understood as distinct within a whole: connecting the physical and the intangible in an integrated cultural knowledge system. Through ceremonial speech within specific *kaupapa* (purpose, objectives or reason) for an event, this tenet is metaphorically rendered in incremental developmental steps, from a learning phase toward realising higher consciousness or illumination through gaining understanding of the nature of reality itself. In extension, we are active ‘receivers and transmitters of ligh[t]’,⁵ in our time here in the physical realm. This foundational framework sets down a process that may guide the transitions within our bodies, minds, hearts, and souls in *Te Ao Mārama*—the realisation of knowledge and understanding, towards wisdom and illumination.

In this article we can only engage in abridged aspects of *mātauranga* Māori, as we discuss how the artworks offer aesthetic and communicative experiences that might resonate with descendants and wider audiences, and, may bridge understandings of the qualities and effects of digital tools as fitting within and relevant to Māori knowledge systems.⁶

Background: The Artworks in Context

Te Maori Exhibition

The year 2019 marks 35 years since the spectacular dawn opening of the *Te Maori* exhibition at the Metropolitan Museum of Art in New York. *Te Maori* travelled within the United States commencing in September 1984 and was shown in four major cities.⁷ The touring exhibition provided a rare, public encounter with Māori treasures not only experienced as artworks in themselves, but also as cultural, social, and spiritual entities. Through participation in *tikanga* (protocol) and *kawa* (ritual) a shift in perception occurred for the US audiences; from ‘seeing’ artworks

to ‘experiencing’ *taonga* that are regarded as ‘living’ intermediaries of physical and spiritual worlds. The public anticipation of experiencing a cultural encounter rather than viewing ‘art objects’, caused the museum to turn away 500 people having reached full capacity for the dawn opening.⁸

One hundred and seventy-four treasures left their holdings from New Zealand museum collections,⁹ under the secure guardianship of their descendants, and travelled immense distances, traversing many thresholds and boundaries, both physical and spiritual, to be welcomed into the international arena.

A significant aspect of these exhibitions were the *tira*, the *kaitiaki* or cultural entourage who accompanied their *taonga*. Definitions for *tira* include ‘a travelling group’ etc,¹⁰ a ‘choir’, ‘ray’, or ‘beam’.¹¹ In oral traditions *tira* can allude to the *mauri* or energetic ‘force of life’ of the collective who embody and reflect the cultural imperative of the specific *kaupapa* for an event.¹²

For each opening, tribal elders ceremonially rendered and illuminated space for each *taonga*, allowing each *mauri*, to be grounded and emitted through the performative articulation of *whakapapa*—a layered knowledge system identifying the connection of all things; people, nature, the cosmos.

The accompanying descendants or *tira* were integral to these events. *Te Maori* brought together some of the most highly regarded *tohunga* (experts),¹³ the highest calibre in ceremonial processes, genuine *aroha* for the *taonga* and warm engagement with the audiences. These events transformed public perceptions of Māori visual forms as dynamic entities in themselves, in which they also lived out identities entwined in their communities, land, genealogy and knowledge. Dimensions beyond the visual came into play, the intangible came into presence with these very tangible forms.

Figure 3. Still tauihu (middle distance) in *Te Maori*, Metropolitan Museum of Art, New York City, US, 1984. License: TVNZ Getty Images.¹⁴



Te Hokinga Mai Exhibition

In 1986 *Te Maori* returned home, and following a re-naming ceremony, *Te Hokinga Mai* toured four major New Zealand cities, within protocol that allowed the significance of the event to be reflected upon and experienced within an *iwi* (tribal) and national context.¹⁵

The unprecedented participation of *tangata whenua* (indigenous people of the land) demonstrated the *mana* or great authority, prestige, and importance of the opening and closing events. The depth of knowledge carried by the elders and their capacity to forge new knowledge was revealed in *reo pōwhiri* (ceremonial call), *karakia* (incantation), *whaikōrero* (formal speech), and *waiata* (song).

The *tauheke* (learned elders) and their respective *iwi* came in force, to bring the *taonga* in safety and to marvel at and reconnect to their *taonga*. The *taonga* were then settled back by *mana whenua* (tribal authority) into their respective ‘housings’, mainly in public museum collections. However, this return for the *taonga* was not back to obscurity; *Te Hokinga Mai* reconnected Māori to their *taonga*. The international exposure and recognition brought a ‘national’ awareness to the intrinsic relationships of *taonga* to *te ao* Māori (the Māori world).

Te Maori and Te Hokinga Mai: The Impact

Te Maori (1984-86) and the *Hokinga Mai* (1986-87) marked a turning point in the national identity of Aotearoa (New Zealand) and crystallised for *iwi*, the *mana* of their *taonga*, *mātauranga*, and *Tangata Whenua* status.

The preface to a 1994 *Te Maori* publication describes how:

Thousands of Māori, young and old, suddenly saw their arts and their traditions in a new light. It was a brilliant light that put a warm glow on everything it touched, that was then . . .¹⁶

Hirini Moko Mead reflected on both the gains of the profound rejuvenation for Māori culture and the challenges ahead. Much has been said and written of this paradigmatic shift, and the entwined political, cultural, and social complexities, and, the ongoing assertion of *iwi* self-determination. The establishment of the Waitangi Tribunal in 1975 to examine claims of breaches to the Treaty of Waitangi, has generated robust insights into the nature of *taonga*, requiring a shift and expansion in understanding, reflected in the use of Māori terminology. In regards to the long-standing declaration of guardianship and ownership rights, Amiria Henare wrote, ‘Māori are not only insisting upon but demonstrating the persistent salience and enduring vitality of their own concepts, and, by extension, of distinctively Māori ways of being’.¹⁷

Taonga

The meanings of *taonga* encompass everything that is of vital regard in *te ao* Māori, the Māori world. The Māori version of Article Two of the Treaty of Waitangi ‘guarantees “tino rangatiratanga” (full authority or chieftainship) over all “taonga” (treasures which to Māori include both the tangible and intangible, material and non-material)’.¹⁸

A Waitangi Tribunal Report (1990) stated:

Taonga are things valued and treasured. They may include those things which give sustenance and those things which support taonga. Generally speaking the classification of taonga is determined by the use to which they are put and/or their significance as possessions. They are imbued with tapu (an aura of protection) to protect them from wrongful use, theft or desecration.¹⁹

Amiria Henare dispels the tendency for ‘objectification’ in that,

taonga are not simply artefacts of individual subjectivity, nor of human agency in general; they are at once the product and fabric of dynamic relational matrices involving all manner of entities, that shift and transform over time.²⁰

In regards to responsibilities for *kaitiakitanga* (guardianship) and intellectual property rights, Wai 262, the most comprehensive Waitangi Treaty claim to date, concluded to make distinctions for *taonga* as ‘Taonga Works’ and ‘Taonga Species’. Taonga Works are defined as:

First, it is a creation of the pre-existing and distinctive body of knowledge, values, and insights we call *mātauranga* Māori. Secondly, it is a result of the effort and creativity of actual people whether in modern times or the distant past. Each taonga work has *kaitiaki*—those whose lineage or calling creates an obligation to safeguard the taonga itself and the *mātauranga* that underlies it.²¹

Taonga Species are less well defined, but refer to *taonga* that are environmental phenomena, such as land, seas, indigenous flora and fauna. It refers to *taonga* from which *mātauranga* is created from, rather than a creation by people.²²

The report contentiously stated Taonga Species have ‘property rights’ and Taonga Works have ‘*kaitiakitanga*’ rights. In this article we use this term ‘*taonga* works’ only to keep a distinction between the *tauīhu* (*taonga* works), the artworks (‘Taonga-derived Works’),²³ and *taonga* that pertain to the phenomena of the natural world such as forests and water, or—specific to this article—space and the electromagnetic spectrum (*taonga* species).

All *taonga* are understood to hold meaning and elicit affect. Paul Tapsell identifies interrelated qualities:

Mana (authority, power prestige); tapu (protected, sacred, prohibited) korero (oratory, narratives); karakia (recitation, incantation); whakapapa (genealogy,

systematic framework); wairua (everlasting spirit); mauri (life force, life essence); ihi (spiritual power); wehi (to incite fear and awe); and wana (authority and integrity).²⁴

Deirdre Brown questions ‘whether the inherent and essential qualities that give an object, person or environment their meaning can be transferred to a digital copy’.²⁵ This inquiry was a strong aspect in our work, whether on behalf of the *tauihu*, *Tira Taonga* and *Te Mauri* can transport or express those qualities to viewers.

Tauihu

Figure 4. *Tauihu*, A78_127, Matai wood, gifted by Mr Manu White for Manukōrihi people. Photo and caption: Puke Ariki Museum – with permission.²⁶



Exhibited in *Te Maori*, the *tauihu* is defined as a war canoe prow from the Taranaki region, carved within the Te Huringa 1 stylistic classification period between 1800 and 1900.²⁷ This *tauihu* was discovered in a swamp north of Manukōrihi Pā, Waitara, Taranaki, in 1938 and kept at Ōwae Marae. In 1960 it was transferred to the Taranaki Museum renamed Puke Ariki Museum (2003) and housed within the *iwi* gallery Te Takapou Whāriki o Taranaki (The Sacred Woven Mat of Taranaki). While there is *mātauranga iwi* (tribal knowledge), archival information from various publications are brief.²⁸

Figure 5-6. *Tauihu*, Te Takapou Whāriki o Taranaki gallery, Puke Ariki Museum, Ngāmotu New Plymouth, 2014. Photo: Kura Puke.



The Artworks: *Tira Taonga* and *Te Mauri*

The Process: *Tira Taonga*, 2015

Encased ‘safely’ behind glass with several other *taonga*,²⁹ the *tauihu* was reduced to an object for ‘museum viewing’, rather than presented in a way that may reveal its original purpose and associated values defined within *mātauranga* Māori. Brenda Tipene-Hook asserts that museum traditions have displayed *taonga*,

[w]ithout considering the role they played in the lives of those who used them, the role they have yet to play in the lives of their descendant communities, and the complexity of the whāriki upon which these *taonga* travel, does not allow them to tell their story as it should be told.³⁰

Since *Te Mauri*, new generations of *iwi*-connected *taonga* curators have been highly instrumental in maintaining these relationships. We spent time at the museum case and within *wānanga* (knowledge creation process) with members of our creative group, where we formed our proposal to the *kaitiaki* for permission to photograph the *tauihu* towards the creation of two artworks.³¹ One of the new works, *Tira Taonga*,³² was to mark the commencement of the retracing and return visit to New York in 2016, and the other, *Te Mauri*—a further technical development—was intended for the actual travel to New York. Through consent from Manukōrihi Pā Trust, the *tauihu kaitiaki* (guardians), we proceeded to work with the *taonga* at Puke Ariki Museum, in collaboration with Glen Skipper, an *iwi* member and *Pou Tiaki Taonga* (curator) for the Māori collection at that time.

For these artworks we investigated how three-dimensional scanning techniques and digital lighting, might enhance the *tauihu*'s visuality in order to create a malleable, high-definition image. The LED (light-emitting diode) lanterns utilised modulated sound and light waves to send vocals through the light. The vocals—either recorded or ‘live’ (via microphone)—manifest as both light and sound through the lanterns and speakers to light-sound-colour ‘wash’ the *tauihu*. The different qualities of the voice—such as pitch and tone—register in the qualities of the light-colour emitted. For example, very high voices with a wavering pitch of a call can send different colours and light effects from the digital lamp as compared to those of deeper voices in incantation. We played recorded *karakia* from our *tohunga* and via a microphone we sent *maioha* through during photographing. The *tauihu* was captured in blue, red, gold, and green tones. Our notion was that the immediate space and perhaps the *taonga* itself was resonating to the voice frequencies and to the intentions carried through those vocals.

Figure 7. *Tauihu*, for *Tira Taonga* (sound-carrying light: green) photographed at Puke Ariki Museum, Ngāmotu New Plymouth. August 17, 2014. Photo: Stuart Foster.



Figure 8. *Tauihu*, for *Tira Taonga* (sound-carrying light: green) photographed at Puke Ariki Museum, Ngāmotu New Plymouth. August 17, 2014. Photo: Derek Hughes.



Figure 9. *Tauihu*, for *Tira Taonga* (sound-carrying light: gold) photographed at Puke Ariki Museum, Ngāmotu New Plymouth. August 17, 2014. Photo: Stuart Foster.



The Process: *Te Mauri*, 2016

Photographs of the *taonga* covering a variety of angles were ‘stitched together’ digitally using photogrammetry techniques.³³ Through software, the image data was developed into three-dimensional ‘point clouds’.³⁴ As digital files, each pixel has an individual image identity. Through processing software,³⁵ we are able to work at the pixel level, re-coding the movement of the pixel or a group of pixels. The animated grouping and movements were choreographed to the ceremonial vocals as an entwined aural-visual entity. Our key objective was to lift the image from the confines of the screen within a space that provides a three-dimensional illusion. Our expectation was that this *tauihu* presentation would reveal or encourage other qualities to come into play.

Figure 10. *Tauihu* (for *Te Mauri*) accessible open-source 3D modelling software, 2015. Screenshot: Stuart Foster.

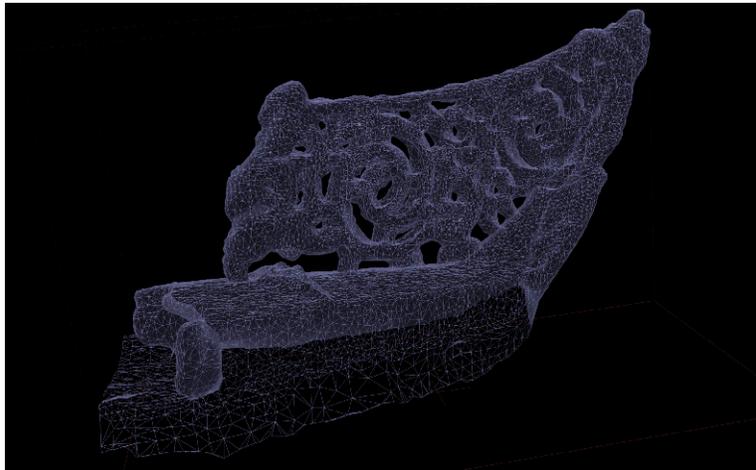
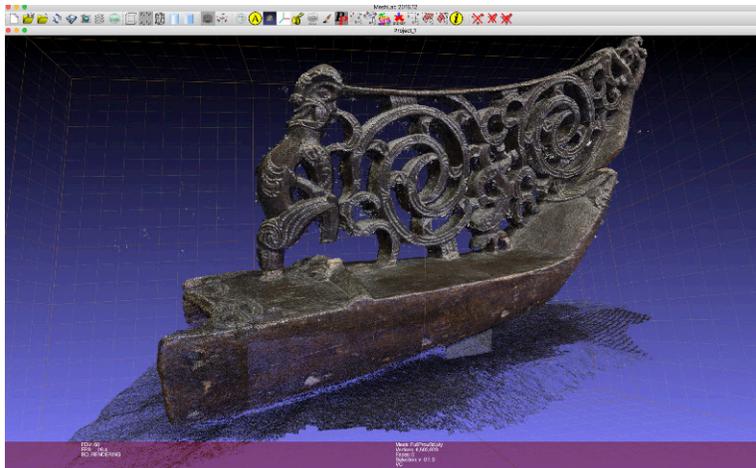


Figure 11. *Tauihu* (for *Te Mauri*) image software, 2015. Screenshot: Stuart Foster.



Tira Taonga and *Te Mauri* sought to commemorate the *tauihu* and its *tira* as a holographic form in an animated visual and aural expression. Our intention for these artworks was to bring together some of those qualities of a *taonga*, into a digital replication with Māori understandings or notions of digital qualities, and, that may also offer an experience that may support a bridging of knowledge systems.

Tira Taonga visually presented the *tauihu* through an initial photographic effect and *Te Mauri* extended that into three dimensions. A digital image symbolically transported into a new case offered a spatial capacity to produce a virtual *tauihu* form, with flexible and multiple viewpoints. Together with image and ceremony *Te Mauri* may contribute to the awareness of a Māori view of ‘*taonga* work’ and other ongoing creative expression.³⁶

Te Ao Māori: A Māori World View

Te māramatanga Ko tupua kawa, Ko tawhito kawa, Te matoe o te Rā-ngī, Te taketake o Rongo, i te whaea, Papa-tū-ā-nuku.	A new consciousness. This is the principle of life, The ancient principle of law, In the open space of radiant sun, of peace, balance for aio of nature, on revolving Earth Mother.
No konei tōku māramatanga, e aratakina nei tōku ngākau, e whiri nei i ōku whakaaro, e tau tika ai tōku māramatanga. Ko te tapu e here ana i āu. Kia tika! kia pono! tētehi atu māramatanga hou!	My conscience comes from here, guided by the processes of my mind-intuition, in the deliberation of my thoughts, to understand, to be enlightened. Bound by the tapu of Māori law . . . Honesty! belief! & integrity! of any new consciousness!

Te Huirangi Eruera Waikerepuru, 2013.³⁷

A Māori world view is defined succinctly by Reverend Maori Marsden as a series of interconnected realms in which the universe is and emerges from, a philosophy where the key principle is an ongoing ‘cosmic process unified and bound together by spirit’.³⁸ From a Māori understanding, the nature of reality is a dual-makeup of spirit/matter, seen and unseen.

The Māori world view has a holistic perspective that might underpin the response to all *taonga*, artwork and other creative cultural expression. This perspective is based upon the universe and all within it, as energies in constant flow. Energies are recognised to have different qualities and are conceptually ordered within three key states. The *tohunga* Maori Marsden, ‘describes holism as seeing the three realms of the Māori worlds as an integrated whole’.³⁹ He interpreted each of the three states of existence as *kete* or metaphorical baskets of knowledge. First, *Tua-uri*, ‘beyond in the world of darkness’: ‘This is the “real” world behind the world of sense perception of the natural world’ [and] ‘where cosmic processes originated and continue to operate in a complex series of rhythmical patterns of energy which operate behind this world of sense perception’.⁴⁰ Second, *Te Aro-nui*, the physical world, ‘that before us . . . the natural world around us as apprehended by the senses’.⁴¹ Third, *Te Ao Tua-*

ātea which represents the realities beyond *wātea* (space-time); it is the eternal realm, the ‘ultimate reality’.⁴²

Maori Marsden also asserts the addition of a fourth *kete*, ‘The world of symbol’ as ‘a deliberate creation of the mind’,⁴³ a vehicle to communicate knowledge including words, forms, ceremonies, and narrative ‘by which the human can grasp, understand and reconcile the worlds of sense perception and the real world behind that creation’.⁴⁴

These *kete* hold knowledge of *Te Kore*, *Te Pō* and *Te Ao Mārama*. This embodied knowledge, names entities in expansive genealogies that connect all energies, particles and matter, animate and inanimate. The knowledge is *tapu* (state of restriction, protection) requiring mindful regard and learned sets of protocol that ensure the spirit/matter connections remain clear and distinct. The charged state of *tapu* is acknowledged and negotiated through ritual processes of *kawa* and *tikanga* to ensure safety and wellbeing.

The value of *taonga* as genealogical connectors, affords *taonga* as having agency beyond its physical form, that may be symbolised, identified and brought into presence through ceremonial experiences. This presence may be registered virtually through the digital form.

To register qualities such as *mauri* and *wairua*, unseen but identified in a holistic capacity, extends further to make sense of these energies, their pathways genealogically mapped through space, and the qualities of space itself. This perspective might be aligned or applied to notions of the workings of the virtual. Technological tools are centred on utilisation of the electromagnetic spectrum of which the flow of data, is registered through computer networks.

Figure 12. Stuart Foster with first glimpse of *Te Mauri* in workshop studio, Wellington, 2016. Photo: Kura Puke.



Inhabiting Digital Space

William J. Mitchell proposes that we now function in ‘an era of electronically extended bodies living at intersection points of the physical and virtual worlds’.⁴⁵ Stephen Perella contends the ‘virtual is an extension of ourselves into a manufactured and constructed space. It is not a separate space but an extrusion of being’,⁴⁶ and, as Peter Anders asserts, ‘an extension of our consciousness’.⁴⁷

In regards to the technology that harbours digital space, we regard technology essentially as a tool, and as Michael Polyani states, tools form ‘part of ourselves, the operating persons’.⁴⁸ Digital technological tools are applied and operate through the electromagnetic spectrum, within and across space.

In a Māori world view, space is embodied in a genealogically framed world view, where space is itself an *atua*. Within *Te Ao Mārama*, the electromagnetic spectrum is situated within the realm of *Rā-ngī* (Sky Father) of which the atmosphere of *Papa-tū-ā-nuku* (Earth Mother) protects Earth from exposure to a range of higher energy and frequency. *Rā-ngī* and *Papa-tū-ā-nuku* are personified as parents who genealogically link all phenomena, nature, and people. To consider or embrace a holistic perspective may meaningfully shape our regard for space, for digital technological tools and the effects or meanings brought to virtual experiences via digital technique.

Māori View of *Te Tai Ātea* (space) *me Ira Ātea* (spectrum)

Te Huirangi Waikerepuru conceptualises layers within the universe as all ‘energy and matter’,⁴⁹ with ‘geological, biological, and genealogical inter-relationships’.⁵⁰ He offers examples such as ‘*wā* (time), *ātea* (space), *hihiri* (energy), *āwheko* (matter), *takitahi* (inter-relations), *wai* (water), *ora* (life), and *moengaroa* (deep sleep)’.⁵¹

For Te Huirangi Waikerepuru the understandings specific to the spectrum can be thought of as layerings and pathways of energies that ‘Māori people have always known and acknowledged’.⁵² The energies manifest between the *atua* *Rā-ngī-nui* and *Papa-tū-ā-nuku*,⁵³ in the *ātea* (space) of *Rā-ngī* and *Papa-tū-ā-nuku*.

Te Ara Tukutuku
Te Ara Tūnui
Te Ara Tūroa
Te Ara Tū Ātea Mutunga Te Kore
Te Māra Tū Ātea Mutunga Kore

In this *karakia* excerpt, Te Huirangi Waikerepuru translates ‘*Māra Tū Ātea Mutunga Kore*’ as within ‘the celestial gardens of infinite space’,⁵⁴ the gardens are a reference to space, as an organic, regenerating, flow of energies, and ‘the action of scattering the seed of *wai*’.⁵⁵

We talk to the spectrum through *karanga*, through *karakia* . . . this is the pathway for transmission . . . of sending the message, through space, through the sun. The spectrum is part of the parent of life, it is part of the universe'.⁵⁶

Te Huirangi Waikerepuru contributed much leadership and knowledge on the *tapu* nature of the electromagnetic spectrum during the Waitangi Tribunal process in regards to ongoing Treaty claims.⁵⁷ In Wai 776 the Tribunal found 'that electromagnetic spectrum, in its natural state, was known to Māori and was a *taonga*.'⁵⁸

Digital networks and virtual reality are seamlessly incorporated into a Māori world view understood within a *whakapapa* framework—but conceptualised as embodied realms where spaces continually open up, extend, or enclose; and where boundaries and thresholds are identified and potentially negotiated by way of *tikanga* Māori (protocols of safety and regard). *Tikanga* Māori upholds the sacredness of 'inter-relationships with *ā-atua*, potency and energy'.⁵⁹

Figure 13. Kura Puke behind *Te Mauri*, in *Trigger Points* exhibition, curated by Heather Galbraith and Andrew J. Saluti, Palitz Gallery, Joseph I. Lubin House, Syracuse University, New York City, US, May 19-June 30, 2016. Photo: Sasha Huber.



Co-Presence

A Māori sense of the intangible and virtual space can be registered through the body as a holistic experience of the corporeal, mental, spiritual, and aesthetic. In reference to Paul Tapsell's earlier description of the inherent or essential qualities of *taonga*, Deirdre Brown notes 'none of these qualities are visual, the property that digital visualisation might solely rely on although ideas of craftsmanship and beauty are inherent in all of them'.⁶⁰

Haidy Geismar draws on Eelco Runia's discussion of 'presence' as 'the affective sense of connecting to reality engendered by photographic technologies' [and that] 'the image draws and holds together the subject and viewer across both time and space'. But also there are other meanings beyond 'what they represent or show us about reality'.⁶¹ In regards to *taonga* and its digital replication, Haidy Geismar asserts the term 'co-presence':

The wairua or spiritual energies, channelled in Māori relationships as they are transmitted through important cultural treasures creates a profound experience of co-presence in which objects are understood as simultaneous links to the past, present and future.⁶²

Our collaborative project *Te Ara Wairua* (2014),⁶³ which made virtual connections between a cloak in a distant collection to *tangata whenua* in Aotearoa, led Haidy Geismar to explain this effect:

The digital images I have been working with constitute a powerful experience of co-presence—the recognition that image making and viewing are also intensely social activities, and that the image draws and holds together the subject and viewer across both time and space.⁶⁴

Taonga are portals to understandings, their knowledge ‘rehearsed and performed’ maintaining connection to lands and people.⁶⁵ Through digital modalities the *tauīhu* can be remembered and offer new insights. The proposition of *Te Mauri* was—through holographic image and ceremony—to investigate if a surrogate could elicit ‘co-presence’ or ‘evoke *ihi*, *wehi*, and *wana*’.⁶⁶ Digital technologies revealing aspects through the absence of the actual *taonga*—within the customary sanction of ceremonial ritual—provide a sense of intangibility through which we access the reality of extending beyond porous boundaries of the body into spaces that continually yield or make way to an ever-expanding consciousness. ‘Thus taonga are time travellers that bridge the generations, enabling descendants to ritually meet their ancestors face to face’,⁶⁷ writes Paul Tapsell metaphorically of a felt and known experience. Maybe through digital modalities in ceremonial space, we make those connections, irrespective of physical signifiers, distance or time.

A fundamental imperative of performative incantation is that it reflects and adds to an understanding of an ultimate reality, ‘*mauri*’ manifest in this physical realm of *Te Ao Mārama*. Participation in ritual allows the person to transit from a sense of being physically present to the notion of switching into *taha wairua* (spiritual side) or intangible awareness.

Revealing Itself

In regards to the digital makeup and effect of the artworks, Te Huirangi Waikerepuru observes:

[E]ach part of that is a separate identity, each of these particles, these pixels, is a separate image identity, but once that image is shaped and given an identity . . . once it is named, it becomes constant, and can be referred to as that. When you are talking about a picture, a photograph, an image; it is showing itself, showing up its own identity . . . it is reflecting itself, it identifies the actual image at a particular point in time’.⁶⁸

Te Mauri allowed or revealed aspects of the *tauihu* to occupy immaterial digital space. In extension to images made of light points, the configuration of the *tauihu*, revealed unseen aspects to come into being, through the digital modality. A new entity was created in digital space, of which a life force is felt, acknowledged, and named. While there remains an elusive quality in its ability to move in and out at any particular point in time: it exists, has the opportunity to be ‘itself’ and can be remembered. As Martin Heidegger proposed ‘the essence of technology is by no means anything technological . . . Technology is a way of revealing’.⁶⁹

As Peter Anders maintains, we are ‘increasingly dependant on . . . technology to sustain our social and cultural reality. [It is] part of being human in our time’.⁷⁰ It is significant to reflect on these vehicles and instruments for understanding from a Māori world view. It may be through a *wānanga* that an inspired individual or group accept that the agency within the ‘virtual’ or ‘digital space’ may or may not be meaningfully aligned in some way to *mauri* and *wairua*.

Concluding Thoughts

Our inquiry, summarised in this article, related *Te Maori* to the *tauihu* and to the unseen qualities that may be considered in new ways that extend our thinking and understanding of *taonga*. *Te Maori* is an artistic layering to meaning, response, ongoing acknowledgement of the *Te Maori* exhibition, and nurturing our engagement to a specific *taonga*. Through the generations, across time and space, *taonga* can continue to live out aspects of themselves, in new expressions of customary understanding.

Memory is also regarded as a *taonga* and a vital knowledge process performs here through digital image and ceremony in transpatial relational experiences that remind us of our dual-reality. *Tira Taonga* and *Te Mauri* both activate memory of a distant *taonga* in a past event and also create new memories and experiences of the *taonga*. If we are to consider the qualities identified by Paul Tapsell, these too may be ‘*taonga* works’ or ‘Taonga-derived Works’. It is ‘through *karakia* we re-remember, we are re-remembering who everybody [is]’.⁷¹ The ceremonial space is where the digital dusts of memory are cohered into a meaningful framework defined by *mātauranga* Māori and brought forward to the next generation.

Steeped in *karakia* from an early age, Inahaa Te Urutahi Waikerepuru responded to the digital works:

[P]oints of light, we are all light therefore we can shape light . . . Our ceremonial rituals guide us to re-remember that we are all light through connecting with the energy between Papa-tū-ā-nuku and Rā-ngī-nui ātea. This is our space, our waka, or, our physical presence and is what we choose to experience in Te Ao Mārama, literally The World of Light—illumination’.⁷²

Figures 14-16. Stuart Foster and Kura Puke (with Te Matahiapo), *Te Mauri*, (2016). Four stills from audio-visual clip (projected within cabinet).

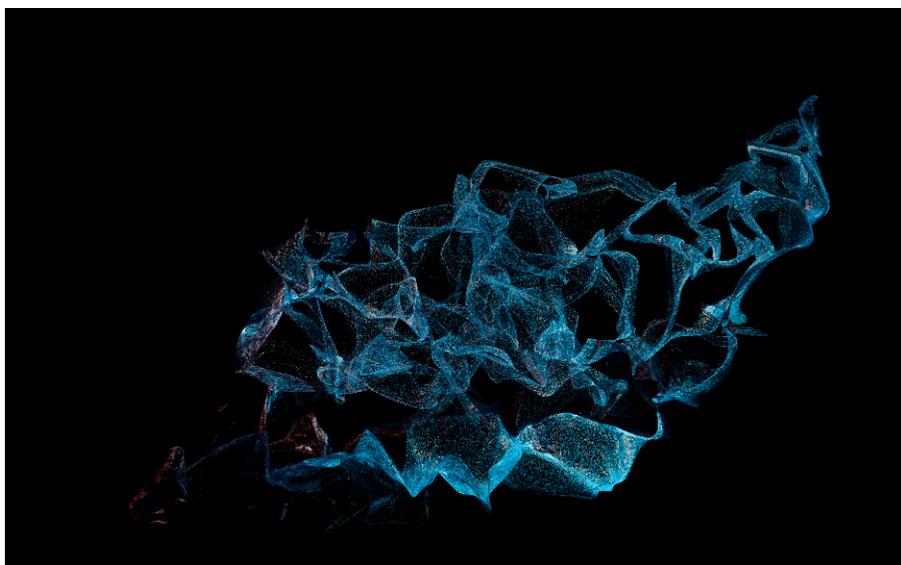
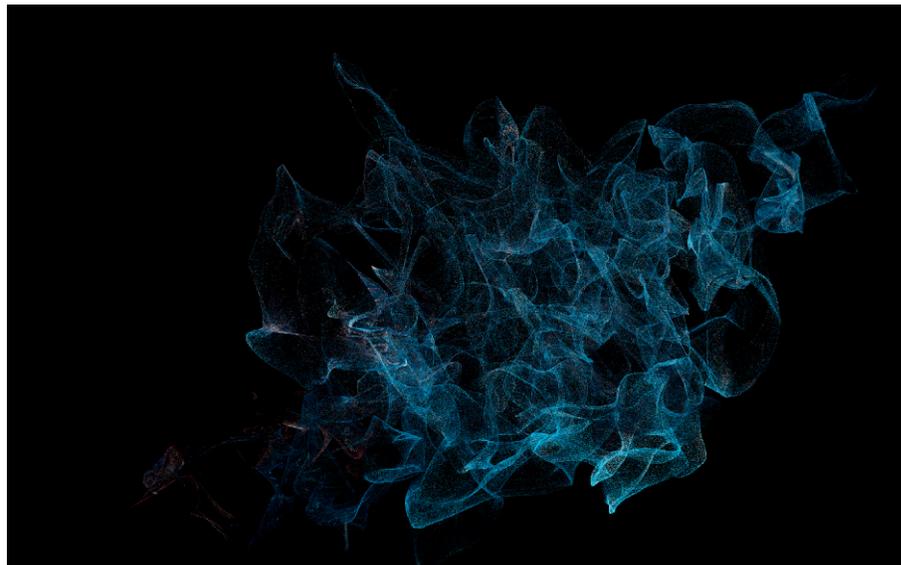
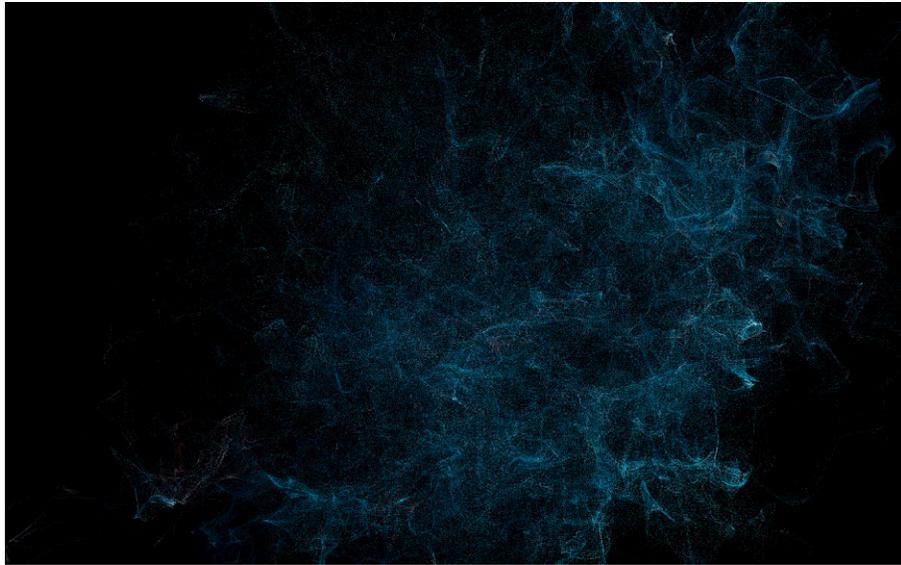




Figure 17. Stuart Foster and Kura Puke (with Te Matahiapo), *Te Mauri*, (2016). Still from audio-visual clip (projected within cabinet).

Re-remembering

The key desire behind exhibiting the work *Te Mauri* in New York City was to remind the descendants of Ōwae Marae that like their ancestors and elders who travelled with *Te Maori*, they too are the *tira* moving through *Te Ao Mārama* with sacred energy and conscious intention.

One afternoon, out on the Waikarepuru *papakāinga* (communal home base/land), Te Huirangi walked across the paddock to see the progress where we explained ‘We are testing the sound-carrying laser light, Koro’.

‘Ae’, Te Huirangi replied, ‘testing the technology and . . . the humanity behind it.’⁷³

In *karakia* the *waka* is metaphorically rendered as a vital embodiment of consciousness.⁷⁴ Voyaging through the ‘*wai*’ (water/energetic flow), the keel enables direction, the prow provides a clear signifier of identity, certainty, and *mana* (authority). *Mana* from the ancestors provides the grounding, agency and assurance that this space, *Te Ao Mārama*, offers us the ability to learn, build on what we know, towards new knowledge. Our intention was to create aesthetic experiences that may reflect this and resonate with the people, through time and space.

Ko te Kete Tūāuri, ko te Kete Tūātea
ko te Kete Aronui, ka tiritiria, ka poupoua
ki Papa-tū-ā-nuku ka puta te ira tangata
Ki te whaiao, ki Te Ao Mārama
Tihe mauri ora !⁷⁵

Endnotes

1. ‘The tapu will be lifted and darkness will be made into light’. This is an excerpt from a *karakia* (intoned incantation) recited by the *tohunga* (expert) entering *Te Maori*, Metropolitan Museum of Art, New York, 1984, in Ray Waru. *Koha- Te Maori*, a Cloak of Words (1984; NZ: TVNZ & Mobil, 1984), film, 02.44, accessed June 22, 2018.
2. Te Huirangi Ereuera Waikerepuru, personal communication, Pouakai, Taranaki, 2015. Māori translation of a well-known saying.
3. New Zealand Waitangi Tribunal, *Ko Aotearoa Tēnei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity*, Te Taumata Tuatahi WAI 262 Waitangi Tribunal Report 2011 (Wellington: Legislation Direct, 2011), 22, accessed August 3, 2018.
4. Te Huirangi Ereuera Waikerepuru, personal communication, Pouakai, Taranaki, 2015.
5. Inahaa Te Urutahi Waikerepuru, personal communication, Pouakai, Taranaki, 2015.
6. We are not experts in *mātauranga* Māori, some *kupu* (words) and *whakaaro* (ideas) which offer layered meaning and the potential to contribute further understandings, were guided by our *kaumatua* Te Huirangi Waikerepuru, the late Mereiwa Broughton and other experts and mentors within our research group Te Matahiapo Research Organisation, <http://www.tematahiapo.org/about-us/>.
7. *Te Maori* opening dates: Metropolitan Museum of Art, New York, September 10, 1984; Saint Louis Art Museum, February 21, 1985; M. H. deYoung Memorial Museum, San Francisco, July 10, 1985; and, The Field Museum of Natural History, Chicago, March 6, 1986, in Hirini Moko Mead, *Magnificent Te Maori: Te Maori Whakahirahira* (Auckland: Heinemann Publishers, 1986), 9, 13, 41, 75, 107.
8. Hirini Moko Mead, “Te Maori in New York,” *Art New Zealand*, 33 Summer (1984-85), accessed July 10, 2018, www.art-newzealand.com/Issues31to40/temaori.htm.
9. David R. Simmons, “Te Rarangi Taonga catalogue”, in *Te Maori: Maori Art from New Zealand Collections*, editor, Sidney Moko Mead (New York: Harry N. Abrams Inc. and The American Federation of the Arts, 1984), 175.
10. Te Reo o Taranaki, *He Pūranga Tākupu a Taranaki* (Taranaki, Te Reo o Taranaki Charitable Trust, 2008), 197.
11. John C Moorefield, *Te Aka Dictionary* (Auckland: Pearson, 2011), 211.
12. ‘Mauri is the force of life’ explained by the *tohunga* Papa Hohepa Delamere.2006. “Wātea.” Oral presentation, Massey University, Auckland, [25/7/06]
13. ‘A *tohunga* is not simply a knowledgeable person. Rather, a *tohunga* is above all a creative person, illuminated with an essential authority which allows him or her to bring new understandings and knowledge to benefit their community.’, Te Ahukaramū Charles Royal, *Wānanga: The Creative Potential of Mātauranga Māori* (monograph 4, 2011), 17.

14. The central tauihu is flanked by: Left, '12 He Pouwhakamaharatanga (Memorial Post), Waikato, Auckland Institute and Museum (25053)'. Right, '17 He Tahuhu (Ridgepole of a Chief's House), Ngati Awa, Auckland Institute and Museum (50434)'. This information for the three taonga was sourced in, Brian Brake, David Simmons and Merimeri Penfold *Te Māori : Taonga Māori = Treasures of the Māori* (Auckland: Reed with Auckland City Art Gallery & Māori Manaaki Taonga Trust, 2nd edition, 1994), 30, 40, 70. Further information can be sourced in Sidney Moko Mead, editor, *Te Maori: Maori Art from New Zealand Collections* (New York: Harry N. Abrams Inc., 1984), 193, 200, 227.
15. *Te Hokinga Mai* exhibition venues and dates: National Museum, Wellington, 16 August – 19 October 1986; Otago Museum, Dunedin, 29 November 1986 – 1 February 1987; City Art Gallery, Christchurch, 14 March – 17 May 1987; Auckland City Art Gallery, Auckland, 27 June – 10 September 1987, in Hirini Moko Mead, *Magnificent Te Maori: Te Maori Whakahirahira* (Auckland: Heinemann Publishers, 1986), 117.
16. Brian Brake, David Simmons and Merimeri Penfold *Te Māori : Taonga Māori = Treasures of the Māori* (Auckland: Reed with Auckland City Art Gallery & Māori Manaaki Taonga Trust, 2nd edition, 1994), 4.
17. Amiria Henare "Taonga Māori: Encompassing Rights and Property in New Zealand," in *Thinking Through Things: Theorising Artefacts Ethnographically*, eds Amiria Henare, Martin Holbraad, and Sari Wastell (New York: Routledge, 2007), 64.
18. The Law Library of Congress, *New Zealand Māori Culture and Intellectual Property Law* (December 2010), 1, accessed June 10, 2018, <https://www.loc.gov/law/help/nz-maori-culture/nz-maori-culture-and-intellectual-property-law.pdf>.
19. New Zealand Waitangi Tribunal *Report of the Waitangi Tribunal on Claims concerning the Allocation of Radio Frequencies - Waitangi Tribunal Report* (Wellington, GP Publications, 1990), 40, accessed June 8, 2018, https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_68476762/Allocation%20of%20Radio%20Frequencies%201990.pdf.
20. Amiria Henare, "Taonga Māori," 62.
21. New Zealand, *Ko Aotearoa*, 30-31.
22. New Zealand, *Ko Aotearoa*, ch.2, 63-84.
23. New Zealand, *Ko Aotearoa*, 47. Discussion where artworks may be classified as 'taonga-derived works.'
24. Paul Tapsell, "The Flight of Pareraututu: An Investigation of Taonga from a Tribal Perspective," *The Journal of the Polynesian Society* V.106, no.4 (1997), cited in Deirdre Brown, "Te Ahua Hiko: Digital Cultural Heritage and Indigenous Objects, People, and Environments," in *Theorizing Digital Cultural Heritage: A Critical Discourse*, editors, Fiona Cameron and Sarah Kenderdine (Cambridge, MA: MIT Press, 2007), 78-79.
25. Deirdre Brown, "Te Ahua," 78.
26. *Tauihu* caption and image can be seen in the online Heritage Collections

- catalogue, Puke Ariki Museum, Ngāmotu New Plymouth, accessed June 10, 2018, <https://collection.pukeariki.com/objects/21894>. An earlier photograph of the tauihu c.1930s, before damage to the forward facing figure at the front of the prow, accessed 19 June 2018, <https://collection.pukeariki.com/objects/145275>.
27. Stylistic categories for *taonga* in Sidney Moko Mead, editor, *Te Maori: Maori Art from New Zealand Collections* (New York: Harry N. Abrams Inc. and The American Federation of the Arts, 1984), 34-35. A fuller explanation can be sourced in Sidney Moko Mead, *Māori Art on the World Scene: Essays on Māori Art* (Wellington: Ahua Design and Illustration Ltd & Matau Associates Ltd, 1997), 61-64.
 28. Information sourced through Puke Ariki Museum, online Heritage Collection and publications: Kelvin Day, *Taranaki Wood Carving of the Taranaki Region* (Auckland: Reed Publishing, 2001), 72., Terence Barrow, *Maori Wood Sculpture* (Japan: Charles E. Tuttle, 1969), 132., Brian Brake, David Simmons and Merimeri Penfold *Te Māori : Taonga Māori = Treasures of the Māori* (Auckland: Reed with Auckland City Art Gallery & Māori Manaaki Taonga Trust, 2nd edition, 1994), 70. Gilbert Archey, *Whaowhia: Maori Art and its Artists* (Auckland: Collins, 1977), 60. Sidney Moko Mead, *Te Maori: Maori Art from the New Zealand Collections* (New York: Harry N. Abrams, Inc., 1984), 227.
 29. The presentations of the *taonga* have since been refreshed and refurbished at Takapou Whāriki o Taranaki gallery, Puke Ariki Museum. (2018)
 30. Brenda Tipene-Hook, “Kanohi ki te Kanohi: A Journey towards Repatriation” MPhil. Thesis, Massey University, 2001, 32, accessed June 24, 2018, <https://mro.massey.ac.nz/handle/10179/3438>.
 31. Te Matahiapo Research Organisation <http://www.tematahiapo.org/about-us/>. For these artworks we consulted and collaborated with members Te Huirangi Waikerepuru and Inahaa Te Urutahi Waikerepuru.
 32. Stuart Foster and Kura Puke (with Te Matahiapo), *Tira Taonga*, 2015, audio-visual 'moving pixel' animation. For, 'reflex*figment' a group exhibition curated by Heather Galbraith, Engine Room (Gallery), Massey University, Wellington, NZ. September 1- 18, 2015.
 33. Photogrammetry: a method of 3D scanning to produce surveying and mapping imagery for the creation of 2D or 3D digital models.
 34. 'Point cloud' is one of the outputs of photogrammetry: to create and measure a large number of data points on the external surfaces of the object being photographed. These points can be moved, made malleable, which in turn changes the form of the model.
 35. Accessible open-source 3D modelling software include 'VisualSFM', 'MeshLab' and 'Blender'.
 36. Stuart Foster and Kura Puke (with Te Matahiapo), *Te Mauri*, 2016, audio-visual holographic effect sculpture, 'point-cloud' 3D Scan animation, 4K HD LED screen, custom-designed display case 1200mm x 800mm x 800mm. For 'Trigger Points' group exhibition and catalogue. Curated by Heather Galbraith and

- Andrew Saluti, Pallitz Gallery, Joseph I. Lubin House, Syracuse University, New York City, US, May 20- June 30, 2016. US. 2006 ISBN 978-0-9836525-4-0.
37. Te Huirangi Ereuera Waikerepuru. 2013. “Te Māramatanga.” Unpublished paper.
 38. Reverend Maori Marsden, in T. A. C. Royal, editor, *The Woven Universe: Selected Writings of Rev. Maori Marsden* (Ōtaki: Estate of Rev. Maori Marsden, 2003), 31.
 39. Reverend Maori Marsden cited in Nathan Kennedy and Richard Jefferies, “Kaupapa Māori Framework and Literature Review of Key Principles.” PUCM Māori Report 4. Edition 2. (Hamilton: IGCI, The University of Waikato, 2009), 119, accessed June 24, 2018, <https://researchcommons.waikato.ac.nz/handle/10289/6104>.
 40. Royal, *The Woven*, 60.
 41. *Ibid.*, 60.
 42. *Ibid.*, 60.
 43. Royal, 61. Rev. Maori Marsden did not offer a Māori term for the fourth *kete*.
 44. Royal, 62.
 45. William, J. Mitchell, *City of Bits: Space, Place and the Infobahn* (Cambridge, Mass: MIT Press 1995), 24.
 46. Perrella, Stephen. 1997. *Hypersurface Architecture and the Question of Interface*. PDF. Rotterdam: Interfacing Realities : V2 _Lab for the Unstable Media. v2.nl/archive/articles/hypersurface-architecture in Stuart Foster, “Being @” MDes. Thesis. Massey University, 65, accessed June 10, 2018, <https://mro.massey.ac.nz/handle/10179/12612> (A full bibliographic note for Perrella is supplied here, as differences are noted in Foster, *Being @*, 73.)
 47. Peter Anders, “Anthropic Cyberspace: Defining Electronic Space from First Principles,” *LEONARDO* 34 issue 5 (Cambridge: The MIT Press 2001): 78, in Foster, *Being @*, 19.
 48. Michael Polyani, *Personal knowledge: Towards a post-critical philosophy* (London: Routledge 1962), 61, in Foster, *Being @*, 29.
 49. Te Huirangi Ereuera Waikerepuru. 2011. “Te Taiao Māori” powerpoint, for keynote presented at Wgtn:LUX2011, Massey University, [09/07/11].
 50. Waikerepuru, *Te Taiao*.
 51. Waikerepuru, *Te Taiao*.
 52. Te Huirangi Ereuera Waikerepuru, personal communication, Pouakai, Taranaki, 2012.
 53. “Atua are sacred elements . . . personifications of natural universal law”, Waikerepuru, *Te Taiao*, 2011.
 54. Te Huirangi Ereuera Waikerepuru. 2012. “Tapu me ōna tikanga : Boundaries and Laws of Safety.” Unpublished paper.
 55. “wa-i-ru-a” , “wai-ru-a” , Te Huirangi Ereuera Waikerepuru, personal communication, Pouakai, Taranaki, 2012. The term *wai* and *wairua* connote both *wairua* as ‘intangible’ energy, and, manifest as water in *Te Ao Mārama*. In this context *wai* is an energy.
 56. Te Huirangi Ereuera Waikerepuru, personal communication, Pouakai, Taranaki, 2012.

57. New Zealand Waitangi Tribunal. 1990. “Report of the Waitangi Tribunal on Claims Concerning the Allocation of Radio Frequencies Waitangi Tribunal Report”, Wellington: GP Publications, accessed June 8, 2018, https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_68476762/Allocation%20of%20Radio%20Frequencies%201990.pdf
58. New Zealand Waitangi Tribunal, *The Radio Spectrum Management and Development Final Report Wai 776 - Waitangi Tribunal Report 1999* (Wellington: GP Publications), 59, accessed June 10, 2018, https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_68205950/Wai776%20final.pdf.
59. Waikerepuru, *Te Taiao*.
60. Brown, “Te Ahua,” 78.
61. Haidy Geismar, “Post-Photographic Presences, or How to Wear a Digital Cloak,” *Photographies* 8, no. 3 (2015), 305, accessed June 10, 2018, <https://www.tandfonline.com/doi/pdf/10.1080/17540763.2015.1102760>.
62. Geismar, “Post-Photographic”, 305.
63. Stuart Foster, Haidy Geismar and Kura Puke, *Te Ara Wairua: Pathways of the Intangible*, 2014, site-specific installation and virtual ceremonial exchange of a *kakahu* (cloak) with sound-carrying LED lights in a custom designed case, screens, speakers, broadband connection. A virtual *powhiri* between Te Matahiapo, Taranaki and University College London, UK. Octagon Gallery, June 18-19, 2014, and exhibition, North Lodge (gallery), University College London, UK., June 20-29, 2014.
64. Geismar, “Post-Photographic”, 306.
65. Tapsell, “The Flight,” 332.
66. Tapsell, 332.
67. Paul Tapsell, *Maori Treasures of New Zealand: Ko Taura* (David Bateman & Auckland War Memorial Museum Tamaki Taenga Hira, 2006), 117.
68. Te Huirangi Eruera Waikerepuru, personal communication, Pouakai, Taranaki, November, 2013.
69. Martin Heidegger, *Being and Time*, trans, John Macquarrie and Edward Robinson (San Francisco: Harper and Row, 1962), 12, in Foster, *Being @*, 19.
70. Anders, “Anthropic Cyberspace”, 59, in Foster, *Being @*, 9.
71. Te Huirangi Eruera Waikerepuru, personal communication, Wellington, January 1, 2014.
72. Inahaa Te Urutahi Waikerepuru, personal communication, Pouakai, Taranaki, 2015.
73. Te Huirangi Waikerepuru, personal communication, Pouakai, Taranaki, February, 2014.
74. We acknowledge Te Ahukaramū Charles Royal, who has often used the waka as a metaphor for tradition and creativity. Such as, *Wānanga: The Creative Potential of Mātauranga Māori* (monograph 4, 2011), 50.
75. Excerpt from *karakia* composed by Te Huirangi Eruera Waikerepuru. This part of the *karakia* locates the phase of the birth of humanity and the crystallisation of human purpose, punctuated with the customary utterance, ‘Tihe mauri ora!’ – The Sneeze of Life!

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Glossary

<i>Aotearoa</i>	New Zealand - Land of the Long White Cloud
<i>aroha</i>	unconditional love, respect, compassion, empathy
<i>ātea</i>	space
<i>atua</i>	personification of Māori world view
<i>iwi</i>	tribe
<i>kaitiaki</i>	guardian of a <i>taonga</i>
<i>kaitiakitanga</i>	guardianship
<i>karakia</i>	chant, intoned incantation
<i>karanga</i>	ceremonial chant – <i>wāhine</i> (women)
<i>kaupapa</i>	purpose, objectives, reason
<i>kawa</i>	ritual or process (embodiment of the principle of Māori law)
<i>kaumātua</i>	elder
<i>kete</i>	baskets, containers
<i>maioha</i>	a type of chant/call, without prescribed actions to indicate your presence or appreciation, and/or to beckon
<i>mana</i>	prestige, authority
<i>mana whenua</i>	tribal authority within a specific area
<i>marae</i>	tribal courtyard and complex
<i>mātauranga Māori</i>	Māori knowledge
<i>mauri</i>	the force of life, the life principle
<i>mouri</i>	the spiritual principle
<i>papakāinga</i>	communal home base/ land
<i>reo pōwhiri</i>	ceremonial call – <i>wāhine</i> (women)
<i>taha wairua</i>	spiritual side
<i>tangata whenua</i>	indigenous people of the land
<i>tapu</i>	state of restriction, protection, principle of Māori law
<i>tātai whakapapa</i>	lineage, genealogy, cosmological knowledge framework
<i>tauheke</i>	learned elders
<i>Te Ao Mārama</i>	The World of Light, the World of Life
<i>tikanga</i>	protocols to maintain boundaries of respect and regard

<i>tohunga</i>	expert
<i>tupuna</i>	ancestor/s
<i>waiata</i>	song
<i>wairua</i>	spirit—non-physical
<i>wānanga</i>	knowledge creation process
<i>wātea</i>	space-time
<i>whaikōrero</i>	formal speechmaking – <i>tāne</i> (men)
<i>whakapapa</i>	knowledge origins and layers such as genealogical links or cultural concepts
<i>whāriki</i>	mat, floor or ground covering, sea bed, platform, base
<i>whenua</i>	land, placenta

Biographical Note

Stuart Foster is a Senior Lecturer at Nga Pae Mahutonga School of Design, Toi Rauwharangi College of Creative Arts, Te Kunenga ki Pūrehuroa Massey University, Whanganui-a-Tara Wellington, Aotearoa New Zealand. Stuart's work reflects a design-led, spatial practice centred on the creation of spatio-temporal narrative environments infused with digital technologies. Presented in public and/or site-specific environments, the research focused on the communication of cultural and social connectedness through the innovative use of digital technology, interdisciplinary aesthetics and ritual performance.

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