

HISTORICAL AND TECHNICAL REPORT

HEI MATAU POUNAMU

GREENSTONE HOOK NECK PENDANT

Da8332

BRISTOL MUSEUM & ART GALLERY



**REPORT PRODUCED BY
BRENT KEREHONA PUKEPUKE-AHITAPU BA, MTeach
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KUPUTAKA/GLOSSARY

Kupu ē-kaupapa/Term

Aho
Aho poka (also known as Tīhoi)

Ariki
Awiri (also known as Tuwiri)
Haerenga
Hapū
Harakeke
Hei
Hieke

Hiku
Hītori
Hoanga
Iwi
Kaiwhakairo
Kaumātua
Kawa

Onepu
Pounamu
Pūrākau
Mana
Mata
Matau
Mātauranga
Rangahau
Rangatira
Tāhuhu
Taura
Tikanga
Tinana
Tūpuna
Te Ao Māori
Upoko
Uri
Waha
Whakanakonako
Whakairo
Whakapapa
Whānau/Whanaunga
Whatu
Whau

Whakamāramatanga/Definition

Horizontal or weft threads
Additional aho, shaping inserts, which create contouring for a closer fit i.e. custom fit
Paramount Chief
Traditional hand drill
Journey
Sub-tribe
Phormium tenax or New Zealand Flax
Neck pendant
A rough type of cloak, with shredded harakeke the exterior surface
Tail
History
Sandstone
Tribe
Carver
Respected elders
Protocols of practice, how things are done (see also tikanga)
Sand
Nephrite jade
Stories, Oral History
Prestige
Eye/s
Hook
Traditional knowledge
Research
Chief or chiefly in nature
Kōrero
Cord used to secure pendants
Correct procedure or custom (see kawa)
Body
Ancestors
The Māori World or Māori worldview
Head
Descendants
Mouth
Embellishments
Carver
Genealogy
Relative/s
Hand-twining technique
Chisel

KUPU WHAKATAKI/PREFACE

‘Ko te manu e kai ana i te miro nōnā te ngahere, ko te manu e kai ana i te mātauranga nōnā te ao.’

The forest belongs to the bird who feasts on the miro berry, the world belongs to the bird who feasts on education.
Māori Whakatauki/Proverb

The *whakapapa* and *hītori* of *taonga*, or the provenance and history of cultural treasures, are as important as the items themselves. Whenever the term *taonga* is used within this report, the author is referring to cultural treasures, although Western practice usually refers to them simply as artefacts or objects.

Mātauranga (knowledge) of who the *kaiwhakairo* (carver) was, the *iwi* or *hapū* (subtribe) from which they affiliate, the identity of the receiver, and the reasons for the gifting – are also *taonga* and unfortunately, far too much of this information has been lost to time.

Māori *taonga* rest in countless institutions around the world, museums, galleries, libraries, and private collections, and although the author does not take issue with this as such; he does feel that far too many *taonga* are displayed, or held, without an appropriate level of cultural and historical context. After visiting several museums in Europe, the United States of America, Australia, and the United Kingdom, the author noticed that several of our *taonga* had either minimal information, no cultural context, or worse, some information panels bore the terms ‘Unknown’ or ‘Unidentified’ and the name of the collector or collection was more prominent than the *taonga* itself.

As a weaver, a novice carver, and a Māori historian, the author felt that he was able to examine select *taonga* from institutions in countries to which he travels and produce documents that would provide these institutions with a general level of historical and technical information. The author has been fortunate to have undertaken extensive international travel, for work, research, and holidays, and has recently begun integrating museum and gallery visits into these trips; contacting institutions prior to any of his *haerenga* (journeys), to ascertain what *taonga* they have, and what he might want to access and examine – or what they would like to know more about.

By no means does he claim to be an expert in the study of Māori *taonga* and feels that there are others of greater standing within the field; however, he offers his knowledge, as best as he is able, to produce research documents that provide substantially more information than is currently held on these specific *taonga*.

The compilation and provision of these reports serve several purposes: to do the *taonga* justice by visiting and spending time with them; to examine them and promote their whereabouts; make their locations known to Māori (and other interested persons); and to uncover their *pūrākau* (stories) and bring them back to life. This third practice of uncovering their *pūrākau* achieves several outcomes, these being: to reunite them with *uri* (direct descendants) and *whanaunga* (relatives); to provide the institutions with a credible and informative record of the respective *taonga*; and ensuring their stories are not forgotten – *ka maumahara tonu tātou kia rātou*.

This particular *pūrākau* tells of a *hei matau pounamu* (greenstone hook neck pendant) which found its way into a geology collection, where it would stay for decades; before concerns were expressed in 2001 and 2021, about its lack of cultural context. Further research by the author identified additional cultural context, and it was then classified and exhibited in a manner more befitting its *mana* (prestige).

HAURONGO/BIOGRAPHY



The author's cultural background sees him affiliated with the *iwi* (tribes) of Ngāpuhi, Ngāi Tūhoe, Te Whakatōhea, and Te Whānau-a-Apanui, as well as having connections to Alveston in Gloucestershire, Bloomsbury in London, and Helsingborg in Sweden – all of which he has visited.

He is ex-military, having served in the army as a paratrooper and then military police officer; before studying a Bachelor of Arts, and then a Master of Teaching degree, and becoming a history teacher, and a military and Māori historian.

The author is a cultural practitioner: *kairaranga* (weaver), novice *kaiwhakairo* (carver), and *kaihaka* (performer).

He is a published author, producing articles, reports, and story books; produced a historical short film; delivered lectures around the world; and contributed towards exhibitions in institutions in Aotearoa New Zealand, and Australia.

The author's research has been referred to in the media; mentioned in legal cases; used on government websites; presented in museums; stopped the sale of *taonga* at auction and assisted in the repatriation of *taonga* back to Aotearoa New Zealand.

He has also appeared on television and radio in Aotearoa New Zealand and Australia, as a *tumu kōrero* (historian), in documentaries, news, and cultural programs.

The author is a husband, father, and grandfather, who believes in the importance of teaching his *whānau* (family) *mātauranga* and *toi Māori* and including them in his *kaupapa rangahau* (research projects); taking them with him on these *haerenga* (journeys) if the opportunities allow.

It is his goal to contribute toward *Māoritanga* and *Te Ao Māori* (The Māori World) in a positive and impactful manner and hopes that this report goes some way towards achieving this objective.

ARA RANGAHAU/RESEARCH METHODOLOGY



The author with Lisa Graves – Curator of The World Collection, and Deborah Hutchinson – Natural Sciences (Geology) Curator.

This report was compiled by the author, utilising: online and library/archive-based research; consultation with curators; conducting interviews with *kaiwhakairo* (carvers), *kaitoi* (artists); as well as carrying out a physical examination of the *taonga* itself. The physical examination of the artefact was undertaken at the Bristol Museum & Art Gallery, on 24th January 2024. The online and library-based research was undertaken between March 2024 - August 2024. The consultation process and interviews with Māori academics and *kaumātua* began in May 2024, and are ongoing, as per Māori *kawa* and *tikanga*.

Facsimiles of original documentation, provided by the Bristol Museum & Art Gallery during the research process, included: Bristol Museum documentation¹. Information from, and images of these documents, are provided by permission of the Bristol Museum & Art Gallery. All physical descriptions, including measurements, and any condition notes, were obtained during the author's examination of the *taonga*.

Thanks, and acknowledgment goes to the following people and institutions for their support and assistance: Bristol Museum & Art Gallery (Lisa Graves – Curator of World Culture, Deborah Hutchinson, Natural Sciences (Geology Curator); Turumakina Duley – *Kaitā* (tattoo artist); and George Nuku – Māori practitioner (carving, painting, weaving).

PŪRONGO KŌRERO O NEHE HISTORICAL REPORT

TĀHUHU KŌRERO/BACKGROUND STORY

*'Ko Poutini te ingoa o te taniwha e kauhoe ana ki te Tai Hauauru o Te Waipounamu e tiaki ana i te iwi me te mauri o te pounamu.'*ⁱⁱ

Poutini is the name of the *taniwha* swimming up and down the West Coast of the South Island protecting both the people and the spiritual essence or *mauri* of *pounamu*, greenstone. Poutini guards the *mauri* within the treasured stone. The *mana* or spiritual force of *pounamu* comes from Kahue (or Ngahue), an *atua*. Poutini as protector of the stone is the servant of Kahue. Poutini once abducted a woman, Waitaiki, from the North Island and fled south pursued by her husband. He hid with his captive in the bed of the Arahura River but Waitaiki's husband pursued them. Poutini transformed Waitaiki into his own spiritual essence — *pounamu* — and fled downriver to the sea. Waitaiki became the 'mother lode' of all *pounamu*. The husband went home grieving.



ⁱⁱⁱ'Poutini and Waitaiki'

Poutini was a *taniwha*, a giant water being. He was guardian for Kahue (Ngahue), the *atua* or deity of *pounamu*, greenstone. The only being that Poutini feared was another *taniwha* named Whatipū, the guardian for Hinehōaka, the *atua* of *hōaka* (sandstone). Grinding with sandstone 'knives' was the only way the *tūpuna* could cut the tough *pounamu* stone.

Once, when Poutini was being pursued in the oceans by Whatipū, he took refuge in a shady corner of a bay at Tūhua (Mayor Island). It was early morning. Lying quietly in the still morning water, Poutini saw a beautiful woman coming down to the water's edge to bathe. Her name was Waitaiki. He watched as she removed her clothes and slipped into the sea. He lusted after her.

Disregarding the danger of being discovered by his enemy, Whatipū, he slipped through the waters of the bay and with a swirl of water — and not a sound — he caught Waitaiki and fled with her across the sea towards the mainland.

Meanwhile, back at Tūhua, Waitaiki's husband, Tamāhua, woke and called to his wife. No answering call came and, disturbed, he went looking for her. He found her clothes at the water's edge and knew that some dreadful fate had befallen her. Distraught, he went to his *tūāhu* (place of ritual) and sought to discover her fate by the powers of *karakia* (incantation) and divination. He used a *tekateka* to gain the knowledge he sought. A *tekateka* is a small, dart-like spear. He hurled it in the air and it hung there quivering and pointing to the mainland in the direction taken by Poutini and his beautiful captive, Waitaiki. Rushing to his canoe, Tamāhua paddled off in pursuit.

Poutini had stopped at Tahanga on the Coromandel Peninsula and lit a fire on the beach to warm Waitaiki. Then he fled across the land to Whangamatā on the western shore of Lake Taupō where he lit another fire for Waitaiki. Meanwhile, Tamaāhua landed on the beach at Tahanga and discovered the fire, but the ashes were cold. Using his *tekateka* again to divine the direction of his quarry, he took off in pursuit, eventually arriving at Whangamatā. He discovered the remains of the second fire and, again resorting to use of his *tekateka*, travelled on in pursuit of Poutini and Waitaiki, still ignorant of what had happened or who was involved.

The chase went on — fires and *tekateka* at every pause. To Rangitoto or D'Urville Island, to Whangamoā in the hills above Whakatū (Nelson) and to Onetāhua or Farewell Spit. Then down the western coast of the South Island to Pāhua near Punakaiki and on past Māwheranui, past Taramakau and Arahura, right to Mahitahi where the tūpuna when travelling south left the land and took to the sea using canoes. As he crossed the mouth of the Arahura River, Tamāhua noticed the water was not as cold as the water of other rivers he had been crossing, but he was too hot in pursuit to waste time — the *tekateka* was drawing him southwards.

By canoe he paddled south from Mahitahi to Takiwai at the mouth of Piopiotahi, Milford Sound. Here he found the *tekateka* hovering in the air and pointing back along the route he had just come. Frustrated and angry, he headed north again following the *tekateka*. It paused, waiting for him, at the mouth of the Arahura River, where he had noted the water was warmer on his journey south. By incantations he knew that his beloved Waitaiki was in distress up the Arahura River valley. He prepared himself, as a warrior, for battle.

Poutini was indeed hiding in the upper Arahura River, by a stream which flows into the main river. That stream we call today Waitaiki. He knew, because he was of the *atua*, that Tamaāhua was coming up river, prepared to kill him. He knew he had little chance of escape should he be found, but he did not want to leave his beautiful captive. Deciding that if he couldn't have her then no-one else would either, he changed her into his own essence — *pounamu* — and laid the woman-stone in the bed of the river, just by the junction of the stream now called Waitaiki with the main river. Then he slipped silently away downstream, right past the wrathful husband, Tamāhua, striding up intent on destruction. Poutini swam to the coast and ever since he has cruised its waters as the *kaitiaki*, guardian spirit, of the land and its sacred stone.

That is why the coast is known as Te Tai Poutini, 'the tides of Poutini'.

Tamaāhua found his beautiful wife Waitaiki. She was lying in her final bed, all grey-green and smooth — *īnanga* stone. He began to tangi for her and for himself at his loss. When his tangi was complete he looked around him and named two hills, Tūhua after his island home, and another Tamāhua after himself. He then began the long return journey whence he had come. He married another woman and

had many children and is known in the traditions of several tribes of the Coromandel coast/northern Bay of Plenty region.

Ever since those ancient times, when the winter snows melt in spring and the waters tumble down the wild Arahura gorges, pieces of *pounamu* are broken off the great body of Waitaiki and make their way down the riverbed. These are the *uri*, children, of Waitaiki, the mother lode of the stone and the parent of the *mauri* that lies within *pounamu*.

This story is really an oral map of the ancient quarries from which the *tūpuna* took their valued stones. Tūhua gave them Mayor Island obsidian, a volcanic glass with its own special colour; Tahanga was the great quarry for basalt used in making adzes; Whangamatā takes its name from *matā*, the ordinary black obsidian. The obsidians were used for sharp knives — the throw-away razor blades of those times.

*This *pūrākau* (mythological account) is sourced from *Poutini - A Guardian Taniwha: A tale from He Korero Pūrākau Mo Ngā Taunahanahatanga a Ngā Tūpuna* (Place Names Of The Ancestors) - A Māori Oral History Atlas.^{iv}

PŪRONGO KUPU Ā-KAUPAPA TECHNICAL REPORT

Taipitopito tirohanga/Examination

Pūrongo o naianei/Existing Report

Bristol Museum Object Catalogue (museum plus)

Some of the terminology here may come from historical records and thus be outdated.

This catalogue information is for research only and the PRM retains copyright over its contents.

Description:

Neck pendant. Stone. Fish-shaped, and green in colour.

Object numbers: Da8332

Geographical provenance: Aotearoa New Zealand

Cultural group: Māori

Local name: Hei Matau

Persons: Unknown Maker. Field collector: Unknown Field Collector.

Date collected: Prior to 1884

Provenance:

Acquisition date: Gifted by Dr A. L. T. Beddoe, on 19 April 1948.

Collection: Geology collection.

Date / Period: Date made: Circa 1700s.

Dimensions: Length: max 90 mm mm Width: max 90 mm.

Weight: 108 grams.

Responses and research:

In 1978, David Simmons recorded the holdings of Māori material in a number of museums in Europe and North America including, in May 1978, the Pitt Rivers Museum. (For copies of his notes and related correspondence, see RDF: Researchers: Simmons.)

Literature:

Keywords: Pendant. Hei Matau. Pounamu. Greenstone.

Class: Clothing Class: Geology.

Material / Technique:

Material: Stone – Bowenite.

Process: Traditionally shaped and drilled.

Primary documentation:

Taipitopito whakawhiwhinga/Accession Number: Da 8332

Momo taonga/Type of taonga: Hei matau pounamu (greenstone neck pendant)

Initial Examination Date: 24th January 2024

Staff present at examination: Lisa Graves – Curator of the World Collection, Deborah Hutchinson – Natural Sciences (Geology) Curator, and Eleanor Hasler – Paper Conservator.

Pinetohu/Labels, tags: An extremely small yellow rectangle label has been affixed directly onto the rear surface, near the outside curved edge of this *hei matau*, and bears the following details 'Da 8332' written in black ink.



Whakaahuatanga/Description:

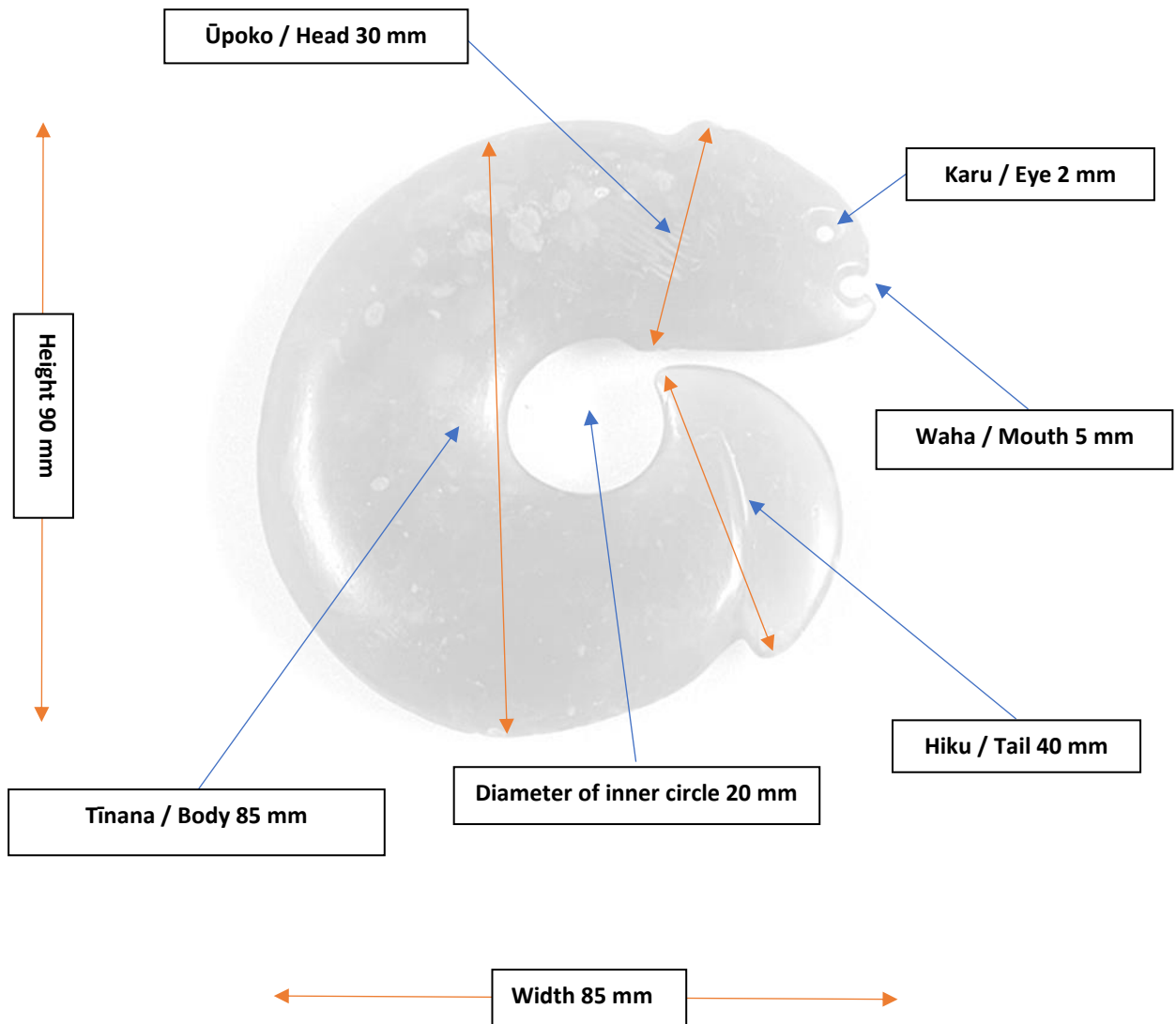
A pre-contact artifact, this is a sizeable example of a *hei matau*. It is translucent green in colour, with a portion of darker-coloured speckles (in a diagonal band) running through from the top of the *ūpoko* (head) to the outside curve of the *tīnana* (body) and touching the top inside curve of the *taonga*. The surface appears quite smooth for the most part, however, there is a portion near the neck which show irregular-shaped, shallow indentations.



The author holds the *hei matau* up to the light to observe the level of translucency.

Inenga/Dimensions:

The width at the widest point (from the outside curved back to the mouth) is 85 mm, whilst the height (from the bottom of the tail to the top of the *ūpoko* or head is 90 mm. The diameter of the eye is 2 mm, with the large inside hole around which the *tīnana* (body) is carved is 20 mm in diameter. The width of the *ūpoko* (head) is 30 mm, whilst its height is also 30 mm. The tail is 40 mm in height.



Taimaha/Weight: 108 grams.

Rauemi/Materials:

This variety of stone is known as *Tangiwai* is clear like glass, and ranges from olive-green to bluish-green in colour. Also known as Bowenite, is an ancient form of *pounamu* and has a different composition to nephrite.^v The name *Tangiwai* translates as ‘tears that come from great sorrow’ and comes from the combination of *tangi* meaning ‘to cry’, and *wai* meaning ‘water’ or ‘tears’. *Tangiwai* can be sourced at the entrance to Piopiotahi - Milford Sound.^{vi}



Map showing sources of nephrite and *tangiwai* (bowenite) in Te Wai Pounamu (South Island), Aotearoa.^{vii}



Milford Sound.^{viii}

Te Whakaahuatanga me te whakamāramatanga/Design and meaning:

‘The form of this type of *Hei Matau* is derived directly from the process in which it is carved - the large central hole dictates the eventual shape. These types of *matau* are purely ceremonial and are associated with Maui when used for ritual purposes by Tohunga. The symbolism of the form represents 'Te Ika ā Maui' - The North Island - The fabulous fish of Maui. - The fish/denizen form also related to the various narratives pertaining to 'Poutini' the fabulous mythological pet fish of the ancestor Ngahue. They were pursued across the *moana* (sea) by Hine-Tu-Hoanga...^{ix}



The whare nui Tūhuru, on Arahura Marae, north of Hokitika on the West Coast of New Zealand. The carved posts and tekoteko depict the story of the abduction of Waitaiki by the taniwha Poutini, who turned her into pounamu (greenstone).^x

For a detailed account of this *pūrākau*, refer to the *Tahūhū Kōrero – Background Story* section earlier in this report pp. 8-10.

Ngā tukanga/Processes

Shaping process:

Pre-1800s, *pounamu* and *tangiwai* was crafted by Māori into tools, weapons, and items of adornment. They were suspended from flax cord as *hei tiki*, *kapeu*, and *hei matau*, and worn as a connection to ancestors. The three materials or substances required to shape, work, and carve *pounamu*, and *tangiwai* (Bowenite), are *hoanga* (sandstone or other sedimentary rocks), *onepu* (sand), and water. *Taonga* were usually made by cutting and grinding the stone. Boulders or slabs were cut using pieces of hard sandstone, greywacke, or schist as saws. Deep grooves were sawn on each side of the rock, which was then snapped along them. Quartz sand was then used as an abrasive to shape and smooth the stone.



Screenshot of Māori *Tohunga Kaiwhakairo* (carver), cutting *pounamu* using a *hoanga* (sandstone knife).^{xi}



Screenshots from a video by *Tohunga Kaiwhakairo*, Layton Robertson, showing different processes of shaping of a *hei matau* using traditional tools and methods.^{xii}

The drilling process for the *karu* (eye) and *waha* (mouth) was undertaken by utilising a tool known as an *awiri* or *tuwiri* (also known as the *pirori*) which was a cord drill that Māori used to create holes in hard materials such as basalt, *pounamu* (greenstone) or bone. The holes were made by applying downward pressure and a twirling motion by pulling cords, creating friction at the drill point to bore through solid material. Making holes in hard materials is especially important in the manufacture of *pounamu* adornments and suspension holes in wrist weapons.^{xiii}



A *pirori* (cord drill), used by Māori to create holes in weapons, adornments, etcetera.^{xiv}

It is evident that these two small holes for the *karu* (eye) and *waha* (mouth) were bored with traditional tools, as there is a recess on each side of the holes (as can be seen in the images below). From the late 19th century through to the current period, in *taonga* where the holes were created using modern drills and drill bits (such as a Dremel), these holes are symmetrical and have no recessed area, just a clean cylinder-like tube.



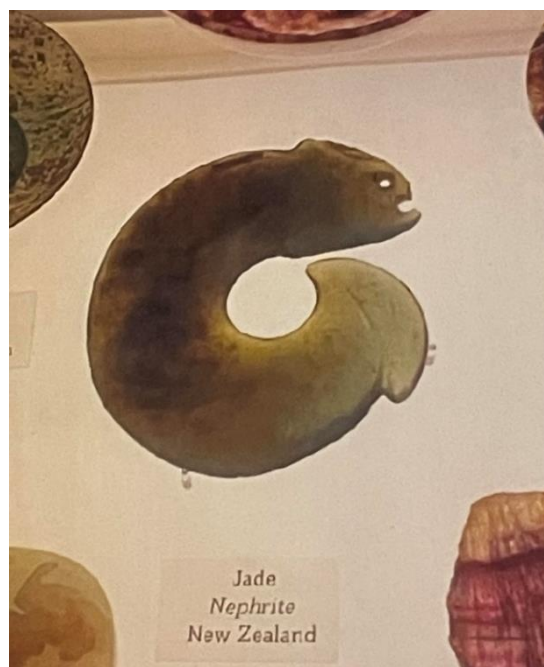
Pakarutanga/Condition:

This *taonga* appears to be in good condition, with no cracks or other blemishes except for eight small scrape marks on the lower-rear jaw area which may be intentionally placed (as gills or a fin). On closer inspection, there may be a minute amount of damage at the extremities of the mouth (especially the upper lip), however, this could be intentional and created as such. Whatever type of *here* (tie) was used to suspend the *hei matau* no longer remains, and there is no evidence of where it may have been affixed.



Whakaaturanga, Whakahaumarutanga rānei /Display, Storage:

Previously to 2023, this *taonga* was displayed in the Geology Minerals gallery (on the First Floor), as an example of nephrite; as the Bristol Museum & Art Gallery wasn't aware of the significance of this as a *taonga*.



An image of the *hei matau* as it was displayed previously within the Geology Minerals gallery.

In 2000, and 2001, there were concerns expressed that there was no Māori context to this *taonga*, and it was subsequently removed from the Geology Minerals gallery and placed into storage until the present time.^{xv}

During his visit to Bristol Museum & Art Gallery, on 24th January 2024, the author was asked to examine this *taonga* with the view that additional contextual information could be discovered.

At the time of examination, this *hei matau* was being stored in a small rectangular cardboard box, lined with thin pieces of plasterzote, with a recess cut (in the corresponding shape) into the bottom portion of plasterzote, to enable it to sit securely within that space.



The box is labelled both on the outside, front, top-right corner, as well as on the top-right corner of the plasterzote packing foam inside.

This *taonga* has previously been stored in the Geology store, with a view that it will be displayed in the World Cultures store in the future.

Ngā tuhinga a te Kaituhituhi/Author's notes:

Initially, I thought the *hei matau* might have been a *tuna*, which is a generic Māori word for freshwater eels; as its simplified shape resembled a New Zealand Shortfin eel. During further research, however, it was confirmed that this, in fact, symbolises a *taniwha* known as 'Poutini'. I had not been aware of the mythology regarding Poutini, and so, I sought additional information from various carvers, artists, and academics.

Tiakanga/Preservation

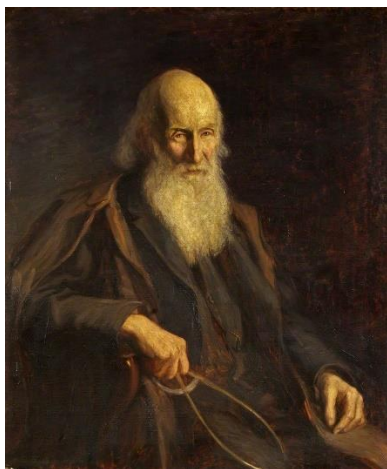
It has long been recognized that art and archaeological collections in museums may need specialized conditions and conservation to survive. However, until relatively recently, geological collections have not had the same level of care. Perhaps, it was thought that rocks, minerals and fossils that had already survived millions of years do not need any particular attention. Although geological material may appear strong and durable, there are factors that can lead to the deterioration and even the complete destruction of specimens.

Environmental factors, including temperature, humidity, light and pollution, can be major threats to geological material. Temperature alone does not usually cause damage to specimens, but it can speed up the rate of deterioration and changes in temperature can affect relative humidity (RH). There are no ideal levels of temperature and relative humidity suitable for all geological material, but the commonly accepted parameters are 20oC plus or minus 2oC, and 50% plus or minus 5% RH, and air-conditioned stores are set at these.

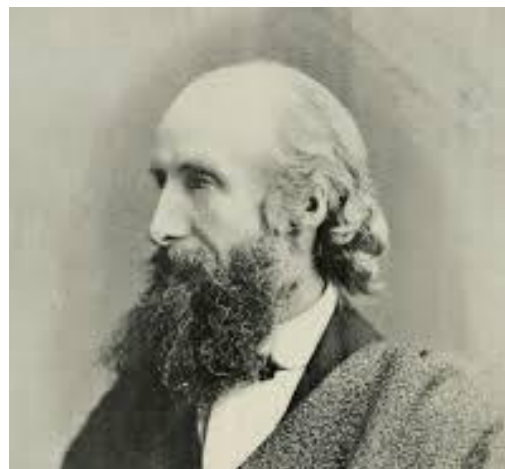
Light is well known to affect sensitive watercolours and textiles, but it can also be a problem for some geological specimens. Ultra-violet radiation has sufficient energy to cause chemical changes in susceptible material and this can be seen by the fading, colour change and deterioration of some minerals. Certain minerals, for example realgar (AsS), need to be stored permanently in the dark to preserve them. The specimens are not the only thing that can be damaged – the ink on labels on display in bright sunlight can fade completely leading to the loss of valuable information. *The above information was sourced from the Deposits website.^{xvi}

Whakapapa/Provenance

The earliest records (MAORI CARVED JADE FROM THE A.R.J. BEDDOE COLLECTION AC. NO. 42/1948. Notes made by Sue Giles 31 August 1984) of this *taonga* which the author could source from the Bristol Museum & Art Gallery, indicate this was part of a collection belonging to John Beddoe MD, FRS; who was a Physician and Anthropologist, a prolific author, and who had also been a lecturer in Chemistry at Oxford.



John Beddoe, MD, FRS.^{xvii}



Dr John Beddoe^{xviii}

Dr John Beddoe passed away on 19th July 1911,^{xix} and his collection was bequeathed to his son, Dr A. R. J. Beddoe; who then gifted it to the Bristol Museum on 19 April 1948.

This *taonga* was then placed into the Geology collection, where it would stay for the next seven decades; until it was removed from that collection in 2022, and placed in storage, due to concerns expressed by two visitors in 2001, and 2021.

Rārangi pukapuka/Bibliography and End Notes

ⁱ Printed sheet MAORI CARVED JADE FROM THE A.R.J. BEDDOE COLLECTION AC. NO. 42/1948. Notes made by Sue Giles 31 August 1984.

ⁱⁱ Poutini is the name of the *taniwha* swimming up and down the West Coast of the South Island protecting both the people and the spiritual essence or *mauri* (life force) of *pounamu*, greenstone. Toitū Te Whenua Land Information New Zealand. Poutini – A Guardian Taniwha. <https://www.linz.govt.nz/our-work/new-zealand-geographic-board/place-name-stories/maori-oral-history-atlas/poutini-guardian-taniwha> (accessed 11th May 2024).

ⁱⁱⁱ New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa. Artwork by Cliff Whiting. <https://teara.govt.nz/en/artwork/21068/poutini-and-waitaiki> (accessed 6th November 2024).

^{iv} Toitū Te Whenua Land Information New Zealand. Poutini – A Guardian Taniwha. <https://www.linz.govt.nz/our-work/new-zealand-geographic-board/place-name-stories/maori-oral-history-atlas/poutini-guardian-taniwha> (accessed 11th May 2024).

^v Museum of New Zealand Te Papa Tongarewa website. Tangiwai pounamu. <https://collections.tepapa.govt.nz/topic/1965> (accessed 10th May 2024).

^{vi} Nuku, G. Social media comment. Facebook. 25th January 2024. George Nuku, is a Māori artist of great renown, who has produced countless art projects around the world over the past two decades. <https://www.facebook.com/search/top/?q=Brent%20Kerehona%20Bristol%20Museum> (accessed 13th February 2024).

^{vii} Te Ara The Encyclopedia based on Beck, Mason (2002) p. 26. <https://teara.govt.nz/en/map/7649/new-zealandspounamu-deposits> (accessed 10th May 2024).

^{viii} Journeys International. Milford Sound Adventure Tours. <https://www.journeysinternational.com/destination/pacific/new-zealand/milford-sound/> (accessed 12th May 2024).

^{ix} Nuku, G. Social media comment. Facebook. 25th January 2024.

^x Arahura Marae Tūhuru MRD. https://commons.wikimedia.org/wiki/File:Arahura_Marae_T%C5%ABhuru_MRD_02.jpg (accessed 10th May 2024).

^{xi} layton_robertson_kaiwhakairo. Pounamu Toki (greenstone adze) made the traditional Māori way using different grades of Hoanga (sandstone) and Onepu (sand). 28th February 2024. <https://www.instagram.com/reel/C33vkz3vXle/> (accessed 11th May 2024).

^{xii} Layton Robertson. Pounamu Hei Matau. Instagram account. 17th June 2023. https://www.instagram.com/layton_robertson_kaiwhakairo/reel/CtIFlvLgrgl/?locale=French (accessed 11th May 2024).

^{xiii} Museum of New Zealand Te Papa Tongarewa website. Pirori (cord drill). [https://collections.tepapa.govt.nz/object/131778#:~:text=Awiri%20or%20tuwiri%20\(also%20known,New%20Zealand%20greenstone\)%20or%20bone.](https://collections.tepapa.govt.nz/object/131778#:~:text=Awiri%20or%20tuwiri%20(also%20known,New%20Zealand%20greenstone)%20or%20bone.) (accessed 11th May 2024).

^{xiv} Museum of New Zealand Te Papa Tongarewa. Pirori (cord drill). <https://collections.tepapa.govt.nz/object/131778> (accessed 11th May 2024). Layton Robertson. Pounamu Hei Matau. Instagram account. 17th June 2023. https://www.instagram.com/layton_robertson_kaiwhakairo/reel/CtIFlvLgrgl/?locale=French (accessed 11th May 2024).

^{xv} Verbal or written complaints lodged by visitors. Information shared with the author through a personal conversation with Lisa Graves on 24th January 2024.

^{xvi} Deposits website. Preserving geological museum collections. Dr Caroline Buttler. <https://depositsmag.com/2016/05/24/preserving-geological-museum-collections/#:~:text=To%20prevent%20pyrite%20decay%2C%20material,will%20stop%20the%20oxidation%20reaction>. (accessed 8 August 2024).

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^{xix} John Beddoe, M.D., LL.D., F.R.S., F.R.C.P., Foreign Assoc. Anthropol. Soc., Paris; Corr. Member Anthropol. Soc., Berlin; Hon. Member Anthropol. Soc., Brussels and Washington, Soc. Friends of Science, Moscow. By John Gray, B.Sc. <https://therai.org.uk/archives-and-manuscripts/obituaries/john-beddoe> (accessed 8 August 2024).

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Tūtohu/Sign off:

Ingoa/Name: Brent Kerehona Pukepuke-Ahitapu *BA, MTeach*
Historian, Author, Weaver, and Educator

Tohu/Signature: _____

Rā/Date: 7 November 2024