

Porotaka hei matau – a traditional Māori tool?

Chris D. Paulin

Museum of New Zealand Te Papa Tongarewa, PO Box 467, Wellington, New Zealand (chrisp@tepapa.govt.nz)

ABSTRACT: Distinctive greenstone artefacts catalogued in museum collections as ‘hei matau’ (stylised fishhooks) were manufactured by pre-European Māori. However, some of these taonga lack characteristics found on matau and are not hei matau. They possibly represent artefacts in their own right, kept and worn as hei kakī (pendants worn around the neck) when no longer used after their function was replaced by European metal tools.

KEYWORDS: Pre-European Māori fishing, hei matau, stylised fishhooks, pendants, curio trading, New Zealand.

Introduction

The wearing of hei matau, or stylised traditional Māori fishhooks manufactured from bone, ivory or pounamu (greenstone) in the late twentieth and early twenty-first centuries, has become a symbol of traditional Māori cultural revival. This custom is partially based on European interpretation of artefacts worn as pendants, which included both functional fishhooks and items described as hei matau or stylised fishhooks by historians in the early twentieth century. However, some of these artefacts, referred to here as ‘porotaka hei matau’ (Best 1924) to distinguish them from true hei matau, may not be stylised fishhooks or personal items, but instead may represent traditional tools of which knowledge of the original function has been lost.

In a previous study of matau (traditional Māori fishing hooks) in museum collections, it was noted that many items catalogued as hei matau lacked a number of features characteristic of matau (Paulin 2007). Ethnographic observations of Māori pendants in the early 1900s noted that greenstone tools were often worn as personal ornaments; however, no observations have been recorded indicating that ‘porotaka hei matau’ were used as tools.

Discussion

In 1893, Augustus Hamilton noted that Māori, as seen by Captain Cook, early voyagers and missionaries, were not in the habit of wearing elaborate necklaces. He observed that

although numerous examples of greenstone pendants are represented in museum collections, necklaces made from strings of perforated stones were virtually unknown and did not come into fashion with the adoption of European customs and habits (Hamilton 1893: 491), although strings of human teeth, shark teeth, stone and/or ivory ‘reels’, sections of albatross bone and tusk shells (*Dentalium* spp.) were worn (Forster 1777: 187; Skinner 1916: 129; 1933: 208; 1936: 127; 1943: 256; Anderson *in* Beaglehole 1967: 810; Davidson 1984: 82).

Early explorers and traders in taonga (artefacts) exchanged European metal tools and weapons for traditional Māori wood, stone, bone and shell implements and pendants (Skinner 1943: 132; Day 2005: 93), many of which are now in museum collections around the world (Kaepler 1978: xiii). Skinner (1933: 1, 191; 1936: 127; 1943: 132) made a comprehensive study of Māori amulets, most of which were singular and had a wide variety of forms, including representations of bats (pekapeka), lizards (moko), fish (ika), humans (tiki) and one-piece fishhooks (matau). Hiroa (1949: 286) and Tregear (1902: 76) observed that authentic spiral forms such as koropepe (eels) or manaia (serpents or seahorses) were rare.

Best (1924: 535) noted that neck ornaments were limited in range and reported hei tiki, koropepe and pekapeka, commenting that, inasmuch as Māori garments lacked pockets, it was quite a common practice to carry small implements or tools suspended from the ears or on a string

around the neck. He also noted that small stone chisels were often carried this way, and if the chisel was made from greenstone, then the pendant was viewed as a desirable adornment apart from its usefulness. This tradition of wearing valuable tools, including fishhooks, for safekeeping and decoration, was widespread throughout Polynesia and the wider Pacific. Best (1924: 535), Hiroa (1949: 286) and Golson (1959: 51) illustrated a wide range of tools that were worn as neck pendants, including kākā rings (pōria, or bird leg-tethering rings) and fishhooks (matau), as well as a flat, wide, circular pendant that was described as porotaka hei matau on account of its form (porotaka = ‘rounded’). Some porotaka hei matau were fashioned from bone, ivory or common stone, though most were of greenstone.

Other authors have noted that hei tiki and kuru (ear pendants) may be post-European in origin, and that they were rare and crudely made until the availability of diamond-tipped drills after European contact made manufacture easier (Groube 1967: 453; Orchiston 1972a: 135, 1972b: 161). Skinner (1933: 202; 1936: 127; 1943: 132), Orchiston (1972a: 99) and Davidson (1984: 84) noted that historical records clearly showed that hei tiki and kuru forms were pre-European, but that there was neither historical nor archaeological evidence for some of the rarer and more distinctive ornaments, including hei matau.

Traditional Māori artefacts, including numerous fishhooks, were traded extensively and have been incorporated into many museum collections. Consequently, they have often lost their context and their cultural significance (Māhina-Tuai 2006: 14), thus lapsing into ‘unmeaning collections of curiosities’ (Hector 1870: 2). Museum collections contain many examples of cultural artefacts catalogued as hei matau. These forms have been interpreted as stylised fishhook breast pendants (Hamilton 1908: 18; Best 1924: 540; Beasley 1928: 109; Skinner 1936: 131; Davidson 1984: 84). The demarcation between hooks produced for fishing (matau) and stylised or replica hooks produced for trade or personal wear (hei matau) is difficult to determine, in part because of the unusual hook design of matau, which is related to the ‘rotating’ manner in which the circle hook functioned (Paulin 2007: 28).

Traditional hooks

Traditional matau hooks were made in all sizes, and are distinctive but seemingly highly variable in shape. Fishhooks made of greenstone were usually less than 60–70 mm in

length (e.g. Figs 1, 3; Paulin 2007: Fig. 24B), while larger hooks consisted of wooden shanks made from binding saplings to create the required shape, and bone points (e.g. Paulin 2007: Figs 8, 9).

Early explorer Pottier de l’Horme, an officer on board de Surville’s ship *St Jean Baptiste* in 1769, commented on the odd shape of the Māori hooks: ‘their hooks, are pieces of root ... to one end they attach a very sharp fish bone, the point of which bends inwards following the shape of the wood; I doubt whether they catch great quantities of fish with this implement’ (de l’Horme in Ollivier & Hingley 1982: 134). William Anderson, ship’s surgeon on board the *Resolution* during Cook’s third voyage to New Zealand in 1777, made a similar observation: ‘They live chiefly by fishing, making use ... of wooden fishhooks pointed with bone, but so oddly made that a stranger is at loss to know how they can answer such a purpose.’ (Anderson in Beaglehole 1955: 811).

Joseph Banks, naturalist on board Cook’s ship *Endeavour* in 1768–71, also commented on the pronounced curved shape of the Māori hooks, noting that they lacked a barb and were, in his view, ‘ill-made’ (Banks in Beaglehole 1962: 26), while early settlers and historians suggested that many of the hooks were ‘odd’, ‘of doubtful efficacy’, ‘very clumsy affairs’ or ‘impossible looking’ (Polack 1838: 26; Baucke 1905: 187; Hamilton 1908: 202; Beasley 1928: 9). Recent archaeologists (e.g. Leach 1998) have also noted and commented on the traditional hook: ‘shaped in a manner which makes it very difficult to imagine could ever be effective in catching a fish’, despite Cook’s observation in November 1774 that Māori ‘were far more expert in catching them [fish] than we’ (in Beaglehole 1961: 288). Paulin (2007: 14, 42), in a study of Māori fishhooks and their function, noted that many of the early European observations were incorrect and that Māori fishing technology was superior to that of the European explorers and settlers. Indeed, today the ‘circle-hook’ design of the Māori fishhook has been readopted by commercial and recreational fishermen.

Following European contact, the perceived superiority of metal for working implements soon became apparent, and redundant stone, wooden or bone tools as material symbols of Māori culture were discarded in a feverish desire that spread like a pandemic (Hiroa 1949: 236). Although carving was rendered easier through the introduction of steel tools, it also became overelaborate and ornate, which spoiled artefacts for actual use but improved them for trade purposes (Hiroa 1949: 197). Rare and valuable tools manufactured

from greenstone or nephrite jade were often kept or traded, without their original function being noted:

Too little has been said and too little is known of the way in which stone implements were made and used ... When the savage acquires an axe of steel his beautiful but ineffective stone weapon becomes useless, and falls from his hand ... by the time a man who not only feels a little curiosity on the subject but desires to impart a little information to his curious countrymen dwelling in the remote Old World comes round, the savage and his savage children have gone to shadow-land. (Chapman 1881: 57)

Because of the rapid adoption of metals by Māori to replace traditional materials, many artefacts manufactured from stone, wood, bone, shell and the like were discarded during the early years of contact between Māori and European, particularly in the period from 1790 to 1840, when numerous sealing and whaling expeditions visited the coast. These traditional items were either traded for metal implements, or simply thrown away (Hiroa 1949). In the acidic New Zealand soils, flax lashings and wooden components soon decayed (Best 1929: 179). Bone and shell components may have persisted for a few years or even decades, but ultimately they too decayed, leaving only stone components such as adze heads and minnow shank lures (Hiroa 1949: 197; Hjanao 1967: 22). Valuable items made of greenstone were, however, often kept and worn as personal items.

Curio trading and hei matau

In the late 1800s, the demand for 'curios' from European collectors increased, leading to the manufacture of replicas solely for trade purposes (Beasley 1928: 15, 111; Skinner 1933: 202; 1966: 12; Hiroa 1949: 301; Day 2005: 97; Paulin 2007: 38). Skinner (1933: 202), in a comprehensive study of Māori amulets, noted that European lapidaries produced imitation or decorative greenstone hei matau using the spiral fishhook pattern in large numbers, and that 'fakes' in bone were also excessively common. Hiroa (1949: 286) also observed that hei matau pendants made using the incurved spiral design were rare, but 'appealed strongly to European makers of greenstone "curios"', and noted that European manufacturers of fakes would frequently employ Māori on commission to sell their 'valuable family heirlooms' to unsuspecting collectors.

Hamilton (1908: 18), Beasley (1928: 108) and Smith (*in* Trewby *et al.* 2004: 20) suggested that some hooks were manufactured for use as ornaments or as charms for

ceremonial purposes, including magico-religious objects (Leach 2006: 131), and were not intended for use in fishing. However, Best (1924, 1929, 1976, 1982) and others (e.g. Taylor 1855; Colenso 1869, 1891; Tregear 1904: 189) documented known Māori narratives, rituals and karakia (ritual chants used by Māori to pass traditions between tribal areas and across generations) associated with fishing, and made no mention of the manufacture or use of symbolic hooks. Mauri (talismanic objects) and certain tapu (sacred) stones, known as manea, were employed as a form of shrine or resting place for gods by sea fishermen (Hamilton 1908: 22; Best 1924: 305; 1929: 3; Hiroa 1949: 98), but the use of ceremonial hooks with no practical function has not been documented.

Māori fishing rituals recorded by Best (1929: 1; 1982: 600) were closely linked to the hooks and lines that were used in fishing activity, and there was much ceremony in particular associated with the first use of a new fishing tackle. Beasley (1928: 114) noted that various ceremonies were undertaken prior to fishing activity, and that these ceremonies were based around the hooks that were to be used, as observed by Taylor (1855: 197). Many matau have small, detailed carvings on the outer loop where the bait string (pākaikai) was attached, or at the snood end of the shank where the hook was lashed to the line (koreke), and these have been interpreted as symbolising Tangaroa, the god of the sea (Beasley 1928: 14). Beasley (1928: 114) also described several unusual slender hooks that he considered to be for ceremonial purposes; however, Hamilton (1908: 39) and Hiroa (1949: 98) stated that these hooks were made to catch seabirds such as albatross and were perhaps restricted to the East Cape region.

Archaeological evidence for the use of matau as a necklace ornament was first reported by Hamilton (1893: 492) from a site near Lake Manapouri. The wearing of matau as pendants was noted by Best (1924: 212; 1942: 340) and Skinner (1936: 129), both of whom also recorded rare examples of 'stylised fishhooks' or porotaka hei matau (Fig. 2) manufactured from pounamu (nephrite jade) and tangiwai (bowenite greenstone) or bone, which were worn as decoration. Rather than being variable and stylised, the porotaka hei matau show a consistency in design and are U-shaped with a broad outer leading edge and broadly notched shanks at either end, one or other of which has a drilled suspension hole. The internal section generally has a narrow gap, flanked by a shallow notch on one or both sides; this superficially resembles the double internal barb (kāniwha) design of



Fig. 1 Matau. Functional matau can be distinguished by the very narrow hook gape and a transverse groove for the snood attachment, which provided leverage to rotate the hook. Small matau were manufactured with double internal barbs (maker unknown; date unknown; Te Papa, OL000097; 21 × 31 mm).

small (c. 25 mm) fishhooks (Fig. 1), which are rounded in cross section. Porotaka hei matau (Fig. 2), however, are generally large (80–110 mm wide), are flattened in cross section and have a sharp leading edge.

Matau, particularly those manufactured entirely from stone such as pounamu, were made to a circle-hook design that related to an unusual method of snaring fish, in which the hook rotates away from the direction of the point (Paulin 2007: 30). Traditional fishing matau can be distinguished from hei matau or porotaka hei matau in that they are rounded in cross section to provide strength and were manufactured with a groove at the base of a knob on the snood end of the shank as an attachment for the line. This groove is always placed at right angles to the direction of the point of the hook and provides leverage when a fish is hooked. Some valuable greenstone matau have a hole drilled at the top of the shank in addition to the groove (Fig. 3), and when not being used were suspended on a string and worn as personal adornments as a means of safekeeping (Best 1924: 205, 213). The suspension holes of porotaka hei matau are generally well worn and many examples have

a second hole, apparently drilled after the first has worn through, indicating that they are of considerable age, but they lack the angled groove characteristic of matau.

Porotaka hei matau

Porotaka hei matau are predominantly found in southern areas, but are known from all regions of New Zealand. Unfortunately, provenance details of many early examples in museum collections do not record collecting localities, and do not distinguish examples found in archaeological sites from those traded by Māori. The similarity of the design throughout New Zealand suggests that some means must have been in place to achieve this consistency. If porotaka hei matau were 'stylised', it would be expected that the design would vary between districts unless some method of passing on the design was available. However, no karakia associated with hei matau have been recorded or commented on by Colenso (1891), Best (1903, 1924), Hiroa (1949) or other authors.

Hamilton (1908: 20) commented that it had been suggested that these porotaka hei matau were used in some manner along with a piece of sharp obsidian to cut hair. However, he also noted that he had been unable to get any direct testimony from Māori on this, and considered it unlikely that such a valuable object would be used in cutting hair as Māori culture demanded that it would have to be destroyed afterwards. Shortland (1865: 56) and Best (1976: 329) described the extreme tapu nature of the haircutting pure, or ceremony, but made no mention of the use of haircutting tools other than sharp flakes of obsidian or sandstone. It would appear to be unlikely that a haircutting artefact would be worn and openly displayed as an ornament.

If porotaka hei matau represent tools, and their function was replaced by the use of steel implements shortly after European contact, we can only speculate on their use. For example, the overall shape of the outer edge of porotaka hei matau is similar to the outer curve of the shell of the kuku, or green-lipped mussel (*Perna canaliculus* (Gmelin, 1791)), used by Māori to prepare flax for net-making or weaving. The large (palm-size) pre-European porotaka hei matau may have been manufactured specifically for a task such as scraping flax and would have been of particular value in inland regions, or where mussel shells could not easily be obtained, such as areas without rocky coastal reefs. The internal opening, with its notched ends, could have functioned as a gauge, ensuring that strips of flax required for



Fig. 2 Porotaka hei matau have been interpreted as ‘stylised fishhooks’, but they differ significantly from matau and are considerably larger, flattened rather than rounded in cross section, and lack a groove for attaching a line. It is possible that these items represent tools whose original function has been lost (maker unknown; 1500?; Te Papa, OL000096; 83 × 103 mm).

net-making or other purposes were uniform in width. This would help to explain the similarity of form of porotaka hei matau throughout New Zealand, achieved through sharing common knowledge in the use of the tool. Alternatively, the predominance of these artefacts in southern areas may be associated with scraping fat from seal skins.

Conclusions

Valuable greenstone fishing matau had a dual purpose, being worn for safekeeping as items of personal prestige when not in use. This secondary purpose eventually gave rise to the development of often highly stylised hei matau in the late twentieth century, which are worn as a symbol of Māori cultural revival. Today, hei matau are considered to be symbolic representations of the fishhook used by the ancestral



Fig. 3 Hei matau. Valuable greenstone matau were worn as pendants for safekeeping when not in use, as Māori garments lacked pockets. The hook was suspended on a cord threaded through a secondary hole drilled at the top of the shank, adjacent to the angled groove (Ngāi Tahu, Kaiapoi; 1500–1800; Te Papa, ME000608; 60.5 × 46.5 mm).

Polynesian cultural hero Māui. According to metaphorical narrative, Māui hauled up the North Island of New Zealand, Te Ika-a-Māui (the Fish of Māui), from the depths of the ocean during a fishing expedition with his brothers. Hei matau also denote the importance of fishing to Māori, and their relationship to Tangaroa, the guardian of the sea and its environs.

Large greenstone artefacts known as porotaka hei matau, which were manufactured by pre-European Māori, lack characteristics found on matau and are not stylised fish-hooks. Hence the term porotaka hei matau for these taonga is misleading, as they possibly represent artefacts in their own right that were kept and worn as adornments when no longer required as tools.

Today, porotaka hei matau are purely ornamental and have no known functionality. It can be speculated that these artefacts may have been made for the purpose of scraping and shredding flax, or for scraping seal skins, but the knowledge of their true function was lost following the introduction of steel tools after 1769. Such conclusions are based solely on ethnographic accounts and require further study and interpretation, including discussion with contemporary Māori weavers. A comprehensive study of porotaka hei matau in museum collections (including microscopic examination for use wear marks) is required, particularly of examples collected prior to the late 1800s, when numerous artefacts were manufactured for the curio trade by both Māori and Europeans.

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