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Susan Bulmer, Garry Law and Douglas Sutton (eds), *A Lot of Spadework to be Done: Essays in Honour of Lady Aileen Fox*

A LOT OF SPADEWORK TO BE DONE

Essays in honour of Lady Aileen Fox

Edited by Susan Bulmer
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AN UNUSUAL AND PREVIOUSLY UNRECORDED STONE REEL FROM WHAKATANE

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While I was Rhodes Visiting Fellow[1] at St Hilda's College, Oxford in 1980-81, I was fortunate to be invited to visit the home of one of the Fellows, Miss Celia Sisam, in St Mary's, Isles of Scilly. Miss Sisam had inherited a reel ornament from her New Zealand-born father, Kenneth Sisam, who had a distinguished career in England after winning a Rhodes Scholarship to Oxford in 1910. Born at Opotiki in 1887 to a farming family, Kenneth Sisam lived his early years at Whakatane (about 1890-1898) and then the family moved to Opouriao some 19 km inland in 1898. After winning a scholarship to Auckland Grammar School in 1900, he went on to gain a scholarship to Auckland University College in 1906. During this period school and university holidays were spent chiefly in the Bay of Plenty and according to Kenneth Sisam's own notes attached to the artefact, written on May 1, 1965, the reel was found during one of these holidays.

The location is given as follows:

> "This was found on the high sand bank of the Whakatane river estuary, west of the Maori pah, between 1900 and 1910. The banks were an old burial ground. The local natives had no idea of its use."

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[1] Lady Aileen Fox gave me invaluable support in my application for this Fellowship and I acknowledge this with sincere thanks.

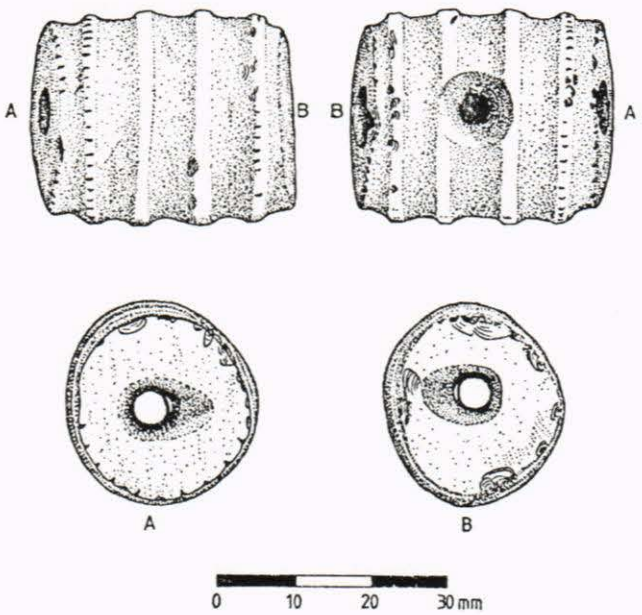

Fig.1 Notched stone reel from Whakatane.

At the time of writing Kenneth Sisam knew of other specimens in various museums and of the discovery of necklaces of ivory and bone reels at Wairau Bar. He did not know whether any of these examples possessed the feature of a laterally as well as longitudinally bored hole which characterizes this find.

The Sisam reel (Fig. 1) is 3.5 cm long and because it is a little asymmetrical has a maximum diameter of 2.6 cm and a minimum diameter of 2.4 cm. It has been drilled longitudinally and the internal bore diameter is approximately 0.7 cm. A second hole has been drilled through one side to meet the central shaft at right angles. This has an entrance diameter of 1.1 cm and is about 0.32 cm where it intersects the longitudinal hole. The weight of the artefact is approximately 45 gm.[2] Four narrow ridges run around the outside of the reel and the two ridges adjoining the end faces show traces of notching. In view of the evidence for a long period of wear (which will be discussed in relation to the suspension technique below) it seems probable that the inner two ridges were also notched but have been worn smooth. Where the end faces adjoin the sides there is also evidence of notching on the undamaged sections of the rim.

Without detailed petrographic examination it was difficult to assess the material from which this reel was made. It is dark-grey, very fine-grained, and fractures conchoidally. When polished by contact with the skin, as on the circumferential ridges it has become black and mirror-like. The two end faces were originally polished on a grind-stone and are slightly faceted towards their edges. These surfaces are reminiscent of the ground facets of black metasomatised argillite adzes from the D'Urville area. Most other stone reels are described as having been made in serpentine, but it is interesting to note that two found at Oruarangi were regarded by Skinner (1934) as made of fine black basalt.

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[2] I did not have access to an accurate balance at the time of recording, hence the weight must be given as approximate.

The longitudinal hole would have been bored at the time of manufacture. It displays very clear evidence that a cord was passed through it and the artefact worn for a long period, because the friction of the cord has polished the inner surface of the hole. Rather more noticeably still, the cord has worn away the entrances of the longitudinal hole so that they are markedly elliptical. To produce this effect the reel would have been worn as a single pendant with the cord curving sharply upwards as it emerged from the longitudinal hole. Of course this does not preclude possible earlier wear as one of several units in a necklace.

The laterally-drilled hole shows contact polish around the outer edges, even where the hole intersects the groove between the ridges. This means that a cord has passed through this hole as well. It is hard to imagine how it could have passed through into the longitudinal cavity with a necklace cord already in place, so it seems reasonable to suggest that this cord was the sole method of attachment at the time that the lateral hole was used, and that the reel was serving as a toggle. Toggles of the Classic Maori period were usually shaft sections of bone (often albatross or mollymawk) with a single perforation midway along the shaft. The edges of the bone were frequently notched. In addition to several bone examples, Skinner (1974:97) figured stone toggles of various shapes; in view of this the conversion of a stone reel into a toggle is not totally unexpected.

How does this newly reported stone reel add to our knowledge of the ornament type and its distribution? Before answering this question it is useful to examine previous publications dealing with this artefact type. It is clear that stone reels had been found in the latter part of the 19th century because Hamilton figured a four-ridged and notched example in 1900, with the following caption.

> "This is a good representative of a number of worked stone relics which have been found in various parts of New Zealand. They are usually cut from a dense, hard, black stone, and are perforated from end to end. It is not definitely known what they were used for, but an old Maori in New Plymouth called it a tunapaheke, and said that it was part of a drill. Other Maoris have suggested that the notches were used as the pegs on a whakapapa, or genealogical staff, for marks or aids in reciting pedigrees"
>
> (Hamilton 1901:406)

Best reproduced the same place (or at least the same artefact) with the caption "Stone artifact of unknown use" in his two volume work "The Maori" (Best 1924, Vol. I:19) but wrote in the text: "Numbers of small stone, spool-like objects found seem to point to them having been formed into necklaces" (Best 1924, Vol. II:543). Although Skinner had figured one from the Moa-bone Point Cave area without interpretation in 1923 (Skinner 1923: Plate XIX No.6), by 1934 he was prepared to consider the possibility that they had sometimes served as drill weights as well as amulets (Skinner 1934: 108). This dual function was opposed by Archey who in 1927 had published a note on a notched reel found at Tairua (Coromandel) which instead of having a single longitudinal hole had been drilled as follows:

> "A hole has been bored in for a short distance from each end, while on a flattened portion of the side of the article a groove has been sunk, each end of which communicates with the corresponding end hole"
>
> (Archey 1927:73)

Obviously such an artefact could not be slipped on to the central shaft of a drill. Despite this evidence, the debate reached the columns of the Gisborne Times in 1933 when a Mr W.E. Goffe reported that he had been presented with a stone reel at Tokomaru Bay

in 1905 which the donor had seen in use as a drill weight many years before. When this report was repeated in the Journal of the Polynesian Society in 1934, the Editor J.C. Andersen pointed out several inaccuracies in Goffe's statements. Later Roger Duff (1956:87) concluded that the story of the reel's prior use as a drill weight was "an amiable fabrication" and reminded his readers that after all the artefact had been ploughed up (c.f. Andersen (1934) who noted it had "turned up in a kumara patch").

The discovery of two stone reels at Oruarangi was first reported by Skinner (1934:Figs. 99, 100). The larger which he thought was of fine-grained black basalt had four notched ridges broken on one side by a shallow groove. His illustration showed that two shallow pits had been drilled adjacent to the two end ridges and fitted with paua inlays. I suspect his figure and description were drawn from a photograph which showed only two inlays, because Fisher's more detailed analysis of the material, published in 1936 comments that "Paua shell discs are also found at two other points in the outer grooves" (Fisher 1936:26) thus making a total of four. It is interesting to note that the Otago Museum cast of this reel does indeed have four paua inlays; surprisingly Skinner did not correct his error in his revised paper on Maori Amulets (Skinner 1974:87, Fig. 4:160). Fisher's publication gave a further opportunity to refute the drill weight hypothesis because the smaller Oruarangi reel was asymmetrically drilled from each end and could not have fitted over a central spindle.

The hypothesis became even more untenable in 1939 when Jim Eyles discovered a burial at Wairau Bar which was accompanied by a moa egg and a necklace of whale ivory reels with a central whale tooth pendant. Andersen (1940:595-9) published the discovery with obvious satisfaction, though Skinner (1943:132-3) would still not abandon the possibility that some stone examples had been used as drill weights. Wairau Bar eventually yielded just over a hundred reel ornaments of

which two were of glossy serpentine and eleven of limestone. The remainder were of bone and ivory (Duff 1956:135). In his study of Moa-hunter material culture from this and other sites, Duff assembled the first comprehensive list of finds of reel ornaments. From this list, to which the recently discovered stone reel from Hot Water Beach can be added (Leahy 1974:40-2), we can draw some conclusions about the distribution of stone reels and their variations in design.

It would of course be desirable to have details of the other 30 or so stone reels which have been found in New Zealand. However the 16 reels listed in the tables fall into two interesting categories, which deserve some consideration. With one exception, all the notched reels have more than one medium ridge and appear to be concentrated in the Bay of Plenty and adjoining regions of the North Island. The unnotched reels generally have only one median ridge and occur throughout New Zealand. There is no obvious difference in the range of lengths or diameters.

The significance of the Sisam reel lies not only in its conversion from reel to toggle, but in the clear evidence that for most of its long functional life it was worn not as a unit in a necklace of reels, but as a single neck pendant. It seems possible that the other notched stone reels were never intended to jostle for attention with similar reels in a single necklace, but were also designed to be worn alone. Notching, the addition of extra median ridges to carry notches, and sometimes other features, obviously made these reels more decorative and eye-catching.

Unfortunately not a single notched stone reel was recovered from a dated context. Of the unnotched type the Hot Water Beach reel was dated to about 1300 A.D. (Leahy, 1974), while the Wairau Bar burial specimen must be of comparable age or earlier. It is possible that the notched stone reels evolved from the plain form and occupy the time slot during which the Archaic Maori preference for necklaces

TABLE I: NOTCHED STONE REELS

(For which dimensions are available)[1]

	Length (cm)	Max. Diameter (cm)	No. of Ridges	Other Features
Sisam reel, Whakatane	3.5	2.6	2 end, 2 median	(additional lateral hole
Oruarangi (larger)	4.3	4.8	2 end , 2 median	(4 paua insets)
Tairua, Coromandel	4.5	3.5	2 end , 1 median	(shallow intersecting holes through side and ends)
Opito, Coromandel (D43.1432 Otago Mus.cast)	5.7	3.7	2 end , 4 median	(double unit, incised lines on end faces)
Tokomaru Bay (D34.634b)	4.6	5.6	2 end, 2 median	
Waimea, Nelson[2]	6.4	broken	2 end, 2 median	
[Hamilton 1901:496]	3.9	4.5	2 end, 2 median	

[1] (where not indicated, measurements are from published sources except for the Sisam reel: Leahy (1974); Skinner (1923),(1934), (1936), (1974); Fisher (1936); Archey (1927); Anderson (1933); Duff (1956); Hamilton (1901).

[2] (measured from cast in Otago Museum (D37.461). The Nelson Museum has the original (K21.72) which is 6.27 cm long and is not attributed specifically to Waimea.)

TABLE II: UNNOTCHED STONE REELS

(for which dimensions are available)[3]

	Length (cm)	Max. Diameter (cm)	No. of Ridges	Other Features
Hot Water Beach,Coromandel	4.5	3.6	2 end, 1 median	
Oruarangi (smaller)	3.9	2.6	1 median	
Pakuku, Cape Turnagain (cast in Otago Mus. D35.1413)	8.4	c. 7.0	1 end, 2 median	(over 50 pits drilled in each end face)
Porirua	1.3	2.0	2 end, 1 median	(one in six)
Ngaruru Bay, Arapaoa Is.	6.6	5.8	2 end, 1 median	(not drilled)
Wairau Bar, Burial 14	3.8	2.9	2 end, 1 median	
Nelson (K242.72)	1.2	1.7	2 end, 1 median	
Moa Bone Point Cave Area	4.1	3.8	2 end, 1 median	
Nr. Gray's Hills, Mackenzie Country	4.4	3.8	1 median	(not drilled)

[3] The sources of measurements are the same as for Table I

of several units was changing to a Classic Maori desire for single pendants, a trend noted by Duff (1956:83), Golson (1959:63) and Groube (1969:2). It is to be hoped that other finds and a more comprehensive analysis of this uncommon amulet type will make the issue clearer.

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