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DECORATED ADZES FROM THE NORTH ISLAND EAST COAST

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Napier

INTRODUCTION

The existence of Hawke's Bay adzes with decorative features on the butt has been generally known for some years. In a review of his Cultural Areas in New Zealand, Skinner (1974:23-24) recognised the decorated adze as an important cultural element for his Area 6 (East Coast) and described and illustrated seven such adzes: four from the East Coast, one probably from the same area, one from Taranaki and one in the Smithsonian Institute stated to be from Easter Island.

Ten years later Cox (1984:104) drew attention to the frequency in museums of Hawke's Bay adzes with decorated butts. She listed 60 of these adzes and provided a distribution map for examples of known provenance. Eight museums had contributed information on these adzes and some examples in private collections were also mentioned.

In her preliminary account Fox noted that, "...it is highly probable that there are other specimens to be located in museum stores and in private collections on the east coast." How true.

Initially, Fox listed 11 such adzes known to be in the Hawke's Bay Museum collection, however recent reorganisation of adze storage and documentation in the museum and a request from an overseas researcher for information on decorative butt adzes, resulted in 39 such adzes being located. With considerably more of these adzes now available for study, it was felt that a more detailed description was warranted.

The following notes, based primarily on the Hawke's Bay Museum collection, will generally confirm Fox's initial findings, though perhaps provide some detail not previously available.

These adzes have variously been referred to as 'a Hawke's Bay type..' (Fox 1984:104), '..highly typical Hawke's Bay pieces..' (Skinner 1974:24), '..highly characteristic Hawke's Bay adzes..' (Prickett 1990:14). In Skinner's classification of New Zealand adzes (Skinner 1938:142-72), these adzes qualify as Type 1. Fox refers to them as Duff's Type 2B, however the majority of these adzes do not match totally the characteristics of either Skinner's Type 1 or Duff's Type 2. These notes are not intended to provide a typological classification but rather to indicate the general features of these adzes.

Adze numbers referred to in this paper are the Hawke's Bay Museum accession catalogue numbers.

GENERAL DESCRIPTION OF ADZES

The adzes are relatively large ranging from 363 mm to 152 mm in length and without exception have a quadrangular or trapezoidal cross-section. The majority (77%) are deep sectioned adzes having a low width to depth ratio. When viewed from the front, the outline of the adze is uninterrupted by any lateral reduction of the butt. Hawke's Bay Museum exceptions are number 383 and 37/713. Rounding of the edges of the butt frequently occurs. Over half of the adzes (54%) exhibit reduction of the front surface of the butt while nine (23%) possess a 'shoulder ridge' between the front and the butt of the adze. A 'chin ridge' between the back and the bevel occurs on four adzes. Only three of the 39 adzes appear to be without a clearly defined grip.

In profile the adzes have a more obtuse bevel angle than usual and this blunt appearance is accentuated in a number of cases by secondary angular grinding of the last few millimetres of the back of the bevel. Although this feature in most adzes would appear to be re-sharpening of a blunted tool, in these adzes it is likely to be a deliberate precaution against unnecessary chipping of the cutting edge. This angular grinding of the bevel is more common on adzes with the 'double spiral decoration' on the poll.

Several pre-forms in the museum collection show that these adzes were usually made from large carefully selected water worn river stones of greywacke. These pre-forms exhibit hammer-dressing as the only form of initial shaping and surface reduction. 'Hammer-dressing' also known as 'pecking', refers to the grooving or overall surface reduction of stone by the repeated impact of a stone of different density known as a hammer-stone.

On visual inspection all the adzes appear to be made of greywacke. In addition to visible colour and grain size differences it seems likely that many of these adzes differ in hardness. Experimentally this has been confirmed with a range of Napier foreshore stones - some selected stones of greywacke being hard enough to use as hammer stones on less dense greywacke.

With the exception of the butt, all surfaces are usually ground smooth. All except one adze show signs of use, either dull edged striations or rounded and polished edges of small chips on the cutting edge.

Adze L85/31, shows no sign of wear and may have been used solely for ceremonial purposes.

It is apparent that the adze makers had a clear understanding of the characteristics and limitations of the stone being used. The less predictable fracturing features of greywacke and the need to use more demanding

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hammer-dressing techniques in preparing pre-forms, meant that careful selection of suitably shaped water-worn stones was essential. This generally meant that deep sectioned stones were chosen to ensure adequate thickness which would resist fracture during adze use.

DECORATION

The predominant method of decorating the adze butts has been hammer-dressing. Only two adzes, (78/149 and 94/3) appear to have been decorated by grinding alone and although the stylised head adze (52/64), exhibits fine grinding to finish the work, it is likely that initial grooving was by hammer-dressing.

The shaping of these well formed greywacke adzes by hammer-dressing, was undoubtedly more time consuming than manufacturing adzes in more readily workable argillite or basalt and the decoration of these adzes may have simply been a visual expression of the adze maker's sense of accomplishment. It seems more likely however that there were deliberate cultural reasons for the embellishment of these adzes.

Decoration has been limited to the poll of the adze in all cases, except two where motifs have extended to the front or lateral surfaces of the butt.

Table 1 provides basic information on each adze.

Decoration can be categorised as follows:

Group	A	Stylised human head	1 adze
Group	B	Double spiral	15 adzes
Group	C	Single spiral	7 adzes
Group	D	Concentric ellipses	3 adzes
Group	E	Parallel lines	12 adzes
Group	F	Oval enclosed lines	1 adze

GROUP A

The Hawke's Bay Museum accession register shows the provenance of this adze (52/64), as 'Martin's Bay, S.I.' making it the sole South Island decorated adze in the collection, however its similarity to another from Mahia Peninsula (Skinner 1974:25) warrants its inclusion and description here. This is the only adze (Figure 1a) which has the decorative feature extending from the poll downwards on the front of the adze butt. The form is aesthetically striking, well proportioned and technically very well executed. A low knob (topknot) occurs on the centre of the poll, then below and forward a series of four converging curved ridges (of eyebrow like appearance). The grooves between

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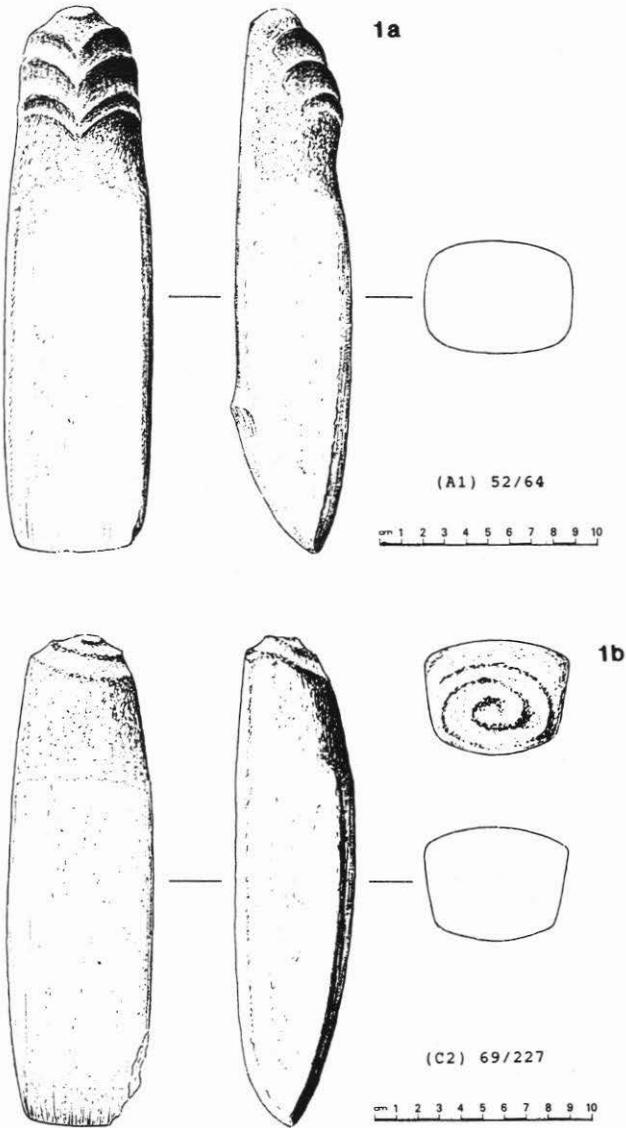


Figure 1a. Adze with the decorative feature extending from the poll downwards on the front of the adze butt. 1b. Adze with spiral line of two revolutions

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the ridges may have initially been formed by hammer-dressing but the smooth surface (almost polish) of these grooves is indicative of careful grinding and possible burnishing.

Below the lowest ridge where the lashing would have been, the hammer-dressing becomes considerably deeper with no sign of grinding. The overall appearance is clearly a stylised form of the upper part of the human head. The balanced design and skill of execution have a strong visual appeal. The adze has a well formed 'chin ridge' at the top of the bevel and is noticeably more blunt in the bevel angle of the cutting edge. A small chip on one end of the cutting edge exhibits 'edge wear' confirming that the adze had had some use. Skinner (1974:25) refers to an adze of similar decorative design from Mahia Peninsula (present location of adze unknown) and notes this design as present in Chatham Island and Easter Island adzes as well.

GROUP B

These adzes feature two spirals on the poll. The largest adze 357 (Figure 2) exhibits on opposing lateral surfaces of the butt, spirals which join smoothly from one to the other in the form of an S. I have applied the term 'linked reverse spirals' here. Three adzes 357, 38/370 and 844/1, exhibit this form. All other adzes in this group are either 'top linked spirals' or 'unlinked adjacent spirals.' (See Figure 5)

In this group, two adzes E.174.148 and 844/1 have not only a high polish on the poll but also on all other surfaces, suggesting that the burnishing may be the result of extensive handling rather than merely the effect of the lashing cord which attached the blades to the wooden hafts. Some ceremonial importance for these adzes seems highly probable.

Adze E174.148 from Ruataniwha, southern Hawke's Bay has been crafted more extensively than most other adzes. Of dense, dark grey greywacke this exceptionally deep sectioned adze has a sharp angled trapezoid cross-section with the front wider than the back. The front of the butt of the adze only has been reduced to form a pronounced grip. Converging surfaces meet sharply and have been extensively ground to a smooth dull polish. At the top of the back bevel a prominent crescent-shaped 'chin' occurs. A concave indentation has been ground below this chin. Close to the cutting edge the last few millimetres of the bevel have been ground flat to form in profile, a blunt angle to the cutting edge. The double spiral on the poll has been well executed by hammer-dressing and subsequent grinding.

GROUP C

These adzes feature a single spiral on the poll. With the exception of adze

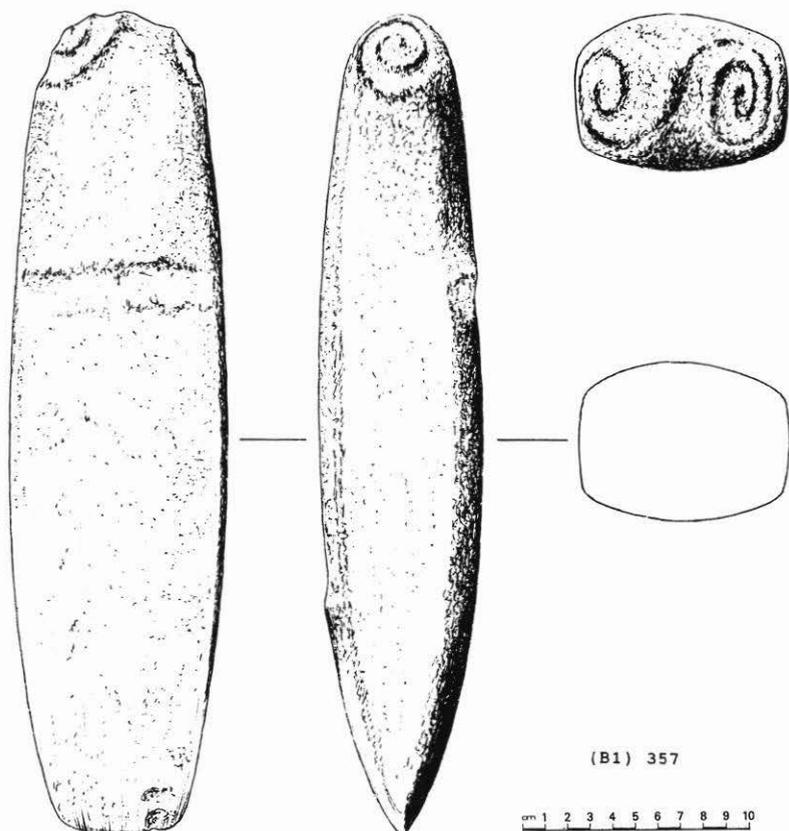


Figure 2. Adze with linked reverse spirals

69/277 (Figure 1b), which has a spiral line of two revolutions all others have a line of one and a half revolutions.

GROUP D

Concentric elliptical grooves on the poll form the decoration on three adzes (Figure 3a). This is a simplified form of the grooved decoration common on the butt end of patu onewa.

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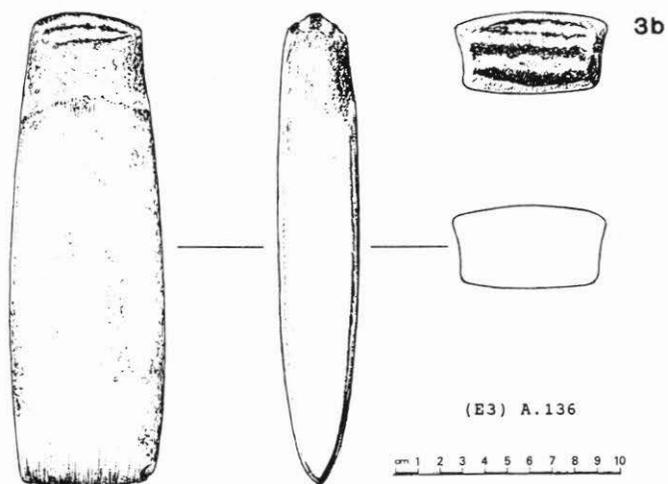
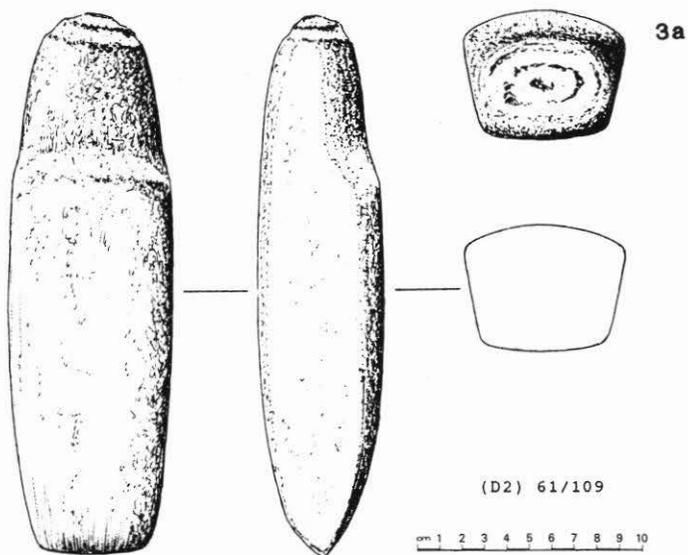


Figure 3a. Adze with concentric elliptical grooves on the poll. 3b. Adze with hammered shallow lined grooves across the poll.

GROUP E

Eleven adzes are decorated by the hammering of shallow lined grooves across the poll (Figure 3b). Slight convergence at the ends is evident in some cases but most of the grooves are roughly parallel. Five adzes have three longitudinal grooves, five have two grooves and one adze has only one groove. Because of intentional or functional wear, the ridges between the grooves often form darker more visible lines.

GROUP F

One adze 94/3, shown in Figure 4, features two straight grooves encompassed by an elliptical groove. In this case the grooves have been ground after hammer-dressing, making for a dark polished decorative butt which is in contrast to the hammer-bruised surface of much of the rest of the adze.

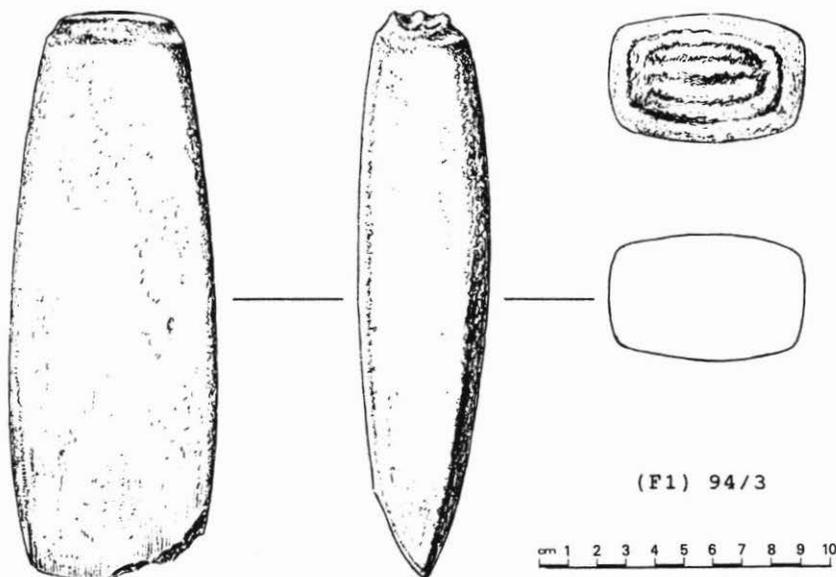
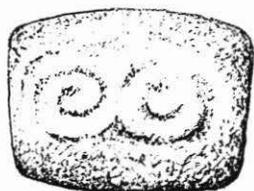
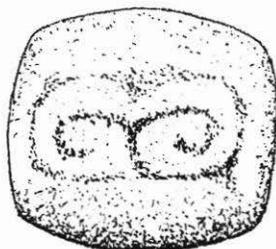


Figure 4. Adze featuring two straight grooves encompassed by an elliptical groove

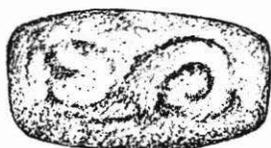
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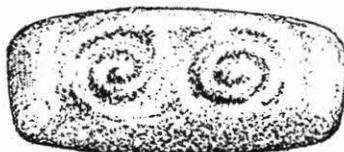
(B4) 37/713



(B6) 927



(B7) 844/1



(B12) 38/365

Figure 5. Examples of double spiral decoration

DISCUSSION

The presence in the Hawke's Bay museum of 39 adzes with decorated features on the poll, strengthens the view that these adzes have originated in the region. The most common motif on these adzes is the spiral - a motif which is rarely seen on adzes or patu onewa from other parts of the country.

Though few, the existence in the museum collection of greywacke adze pre-forms which exhibit only hammer-dressing as the means of shaping, raises the question of whether there were significant regional differences in the methods employed to manufacture adzes from greywacke. The presence of flaked greywacke pre-forms and significant debitage at Motukorea in the Auckland area (Fredericksen 1991:91) is indicative of flaking as the initial method of shaping adzes there, while at the headland pa of Kauri Point, Prickett (1989:197) notes that greywacke is recognised as a good cutting and scraping material and that the predominance of waste greywacke flakes from that site

may well be from adze manufacture. Future archaeological field work on the East Coast may reveal greywacke flaking techniques similar to those evident at Motukorea and Kauri Point, however, greywacke adzes in the Hawke's Bay Museum collection show no vestiges of deliberate flaking. Present evidence suggests that on the East Coast hammer-dressing was the primary (and perhaps only) technique used prior to surface finishing by grinding.

The East Coast is not well endowed with sources of good quality stone such as argillite and basalt for adze manufacture. The early use of silicified limestone from Owahanga (Simcox 1993:3-4) is indicative of the search for local stone with characteristics similar to the argillites from the Nelson mineral belt. However the scarcity of such stone and the abundance of the hard, less compromising greywacke may well have forced local iwi to develop new or more sophisticated techniques for the working of this abundant stone.

Examination of the surface of some East Coast greywacke adzes and the pre-forms in particular, shows a distinct variation of hammer-dressing according to the reason for reduction. In a number of cases, unground adze surfaces show a deep-pitted effect whereas decorative grooving has much finer indentations into the stone. It seems likely that surface reduction by hammer-dressing may have been more efficient and rapid than has been previously realised.

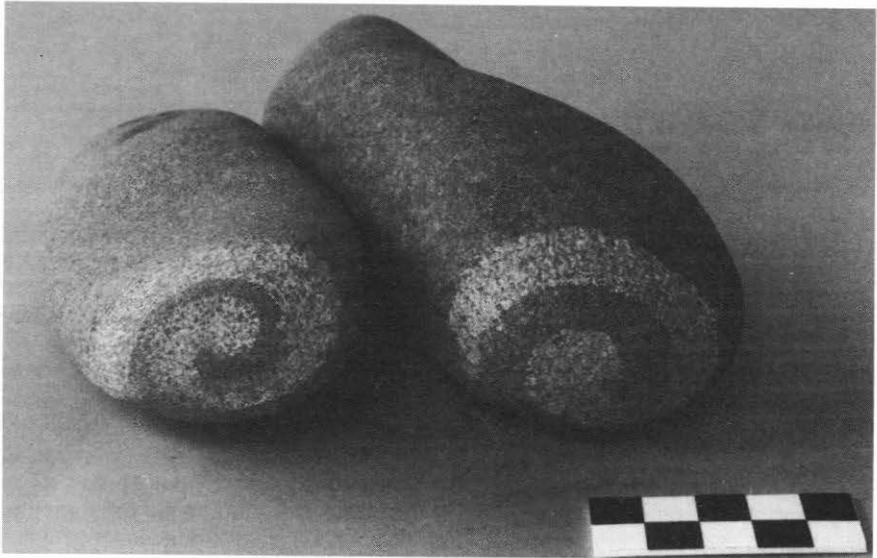


Figure 6. The results of recent experiments hammer bruising greywacke stones.

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Recent experiments with large greywacke stones and makeshift hammer stones from the Napier foreshore have shown that decorative hammer bruising was not a laborious process (Figure 6). Production of a trial single spiral of one and a half revolutions, spanning 50 mm and to a depth of 1.5 mm took 15 minutes to complete and although the motifs on the adzes are more finely executed, it is unlikely that these would have been difficult or time consuming for skilled craftspeople.

From an aesthetic point of view, several adzes stand out. In these cases the stone is a dark grey almost black greywacke which has been subjected to a comparatively high level of polish on all main surfaces. Though no weight density tests have been carried out these adzes seem to be heavier than others. These features suggest a common lithic source. Decorative features are well executed and although pattern types vary, there is the possibility that these may have been the work of one person or specialised iwi. Unfortunately only one of this group has the generalised provenance of Hawke's Bay, the remainder are unprovenanced. These adzes include: 52/G4, 67/396, 69/277, 61/109, 53/194.

The ten additional provenanced adzes which have come to light include one which is from North Auckland. The others are all from localities on the North Island East Coast. Though there is no certainty with the additional unprovenanced adzes, their East Coast origin is highly probable when one considers that the donors in most cases were people who lived in the region.

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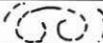
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Table 1. DECORATED BUTT ADZES IN THE HAWKE'S BAY MUSEUM

Museum No.	Provenance	Measurements				Decoration
		L	W	D	C	
Group A 52/64	Martin's Bay S.I.	248	068	053	054	
Group B 357	Unprovenanced	363	093	070	055	
94/2	Unprovenanced	285	074	058	052	
38/370	Waiputaputa Wairoa County	277	074	046	053	
37/713	Pakowhai Hawke's Bay	256	066	057	042	
E174.148 L85/31	Ruataniwha Onga Onga	302	066	065	040	
927	Poukawa	257	062	056	036	
844/1	Unprovenanced	246	066	040	049	
2030	Te Mahanga Hawke's Bay	228	067	049	051	
67/396	East Coast	229	059	052	040	
844/5	Unprovenanced	210	073	052	051	
51/89	Opoutama	208	069	034	068	
38/365	Mangatokerau	204	071	032	067	
A.123	Unprovenanced	194	057	047	042	
37/503	Gisborne	285	068	034	066	
E.403	Unprovenanced	171	064	032	067	

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Group C A.89	Unprovenanced	234 055 043 042	
69/277	Unprovenanced	226 066 053 050	
383	Unprovenanced	206 069 049 053	
53/180	Unprovenanced	177 062 042 054	
38/368	Omanuka Waiapu County	169 065 031 063	
38/371	Taraingahoe Waipare	293 077 046 059	
94/10	Waipawa	329 069 064 046	
GROUP D 38/361	Hawke's Bay	252 065 057 053	
61/109	Unprovenanced	238 072 055 052	
1019	North Auckland	152 054 036 046	
GROUP E 53/194	Unprovenanced	276 066 060 046	
78/149	Unprovenanced	251 067 054 050	
A.136	Unprovenanced	208 067 034 058	
A.99	Unprovenanced	216 065 051 042	
49/77	Unprovenanced	182 061 034 056	
38/366	Tangoito Tokomaru Bay	180 069 035 065	
38/364	Rotoahi Tokomaru Bay	173 073 035 ?	
78/157	Unprovenanced	276 078 065 053	
38/451	Unprovenanced	225 067 062 ?	
844/2	Unprovenanced	223 070 041 067	
65/270	Unprovenanced	224 072 058 ?	

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94/31	Unprovenanced	243 067 046 055	
GROUP F 94/3	Unprovenanced	194 069 044 058	

KEY: Measurements in millimetres

L = maximum length

W = maximum width

D = maximum depth

c = width of cutting edge