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HARD ROCK AND THE CLASSIC ADZE

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Abstract

A rock used in the manufacture of 'Classic' adzes is identified and described, and the distribution of adzes in the material shown. Tests of the rocks strength indicate that this may have been the quality most prized by the Maori. More distribution patterns in later adze material must exist and would repay examination.

The high value put on fine-grained easily flakeable rock as adze material by the early Maoris has long been realised. The 'distinctive' appearance of some of the D'urville Island argillite in polished form has enabled an extremely widespread distribution pattern to be traced, although the reliability of macroscopic identification of this rock has yet to be determined.

A fine-grained basalt, from Tahanga Hill, Opito, has been studied by Shaw (1963) Moore (1975) and Best (1975). Using C^{14} dates and/or associated cultural assemblages from excavated sites containing this material, and relying on typology in other cases, it appears certain that the distribution of the basalt was widest in the early period; very few Duff 2B or Classic Adzes having been found in this material, even on the Coromandel Peninsula itself.

The volume of waste rock, number of broken or discarded roughouts, and the general extent of the Tahanga and D'urville Island quarries, together with the visibility of the rock in adze form indicate the importance attributed to such rocks by the early Maori.

With the 2B adze however no such evidence has been available. No extensively used quarries have been found, and no widespread distribution patterns described. Both these may be products of the assumption that almost any river pebble of the right size was considered suitable as adze material (Baucke 1928:8). However the importance of a specific rock for Classic adzes is clearly recorded:

"Thus the Tuhoe, or Urawera Tribe, who have in their own Tribal domain no stone suitable for manufacturing into the best type of adzes, were wont to obtain such from the Wai-kato and Poverty Bay districts. In the former case it was probably obtained by barter, but in regard to the latter locality we are informed that parties of Tuhoe used to make occasional expeditions to a famous quarry on the headwaters of the Wai-paoa River, in the Poverty Bay district, where, from the living rock, they obtained pieces of stone to be worked into implements when they returned home".

(Best 1912:24)

Recent work (Best 1975) has shown however that, in the Northland-Auckland area at least, the distribution of a specific rock, used exclusively for 2B adzes, can be plotted.

It was pointed out to the writer by D. Simmons, Ethnologist at the Auckland Museum, that many 2B adzes from Northland were of a distinctive and possibly similar rock. Inspection of the adze collection at the museum revealed several hundred such adzes. A programme of thin-section study indicated that the rock was indeed distinctive, that adzes made from it were found from North Cape to the Bay of Plenty, and that the hand-specimen appearance was a reliable guide to identification. Two hundred and twelve adzes, of which 34 had been examined in thin-section, were identified as being made in this material.

Characteristics

The rock is a gabbro, with a distinctive hand-specimen appearance caused by slim interlocking felspar laths, most apparent when the surface of the adze has weathered, but still visible under a high polish.

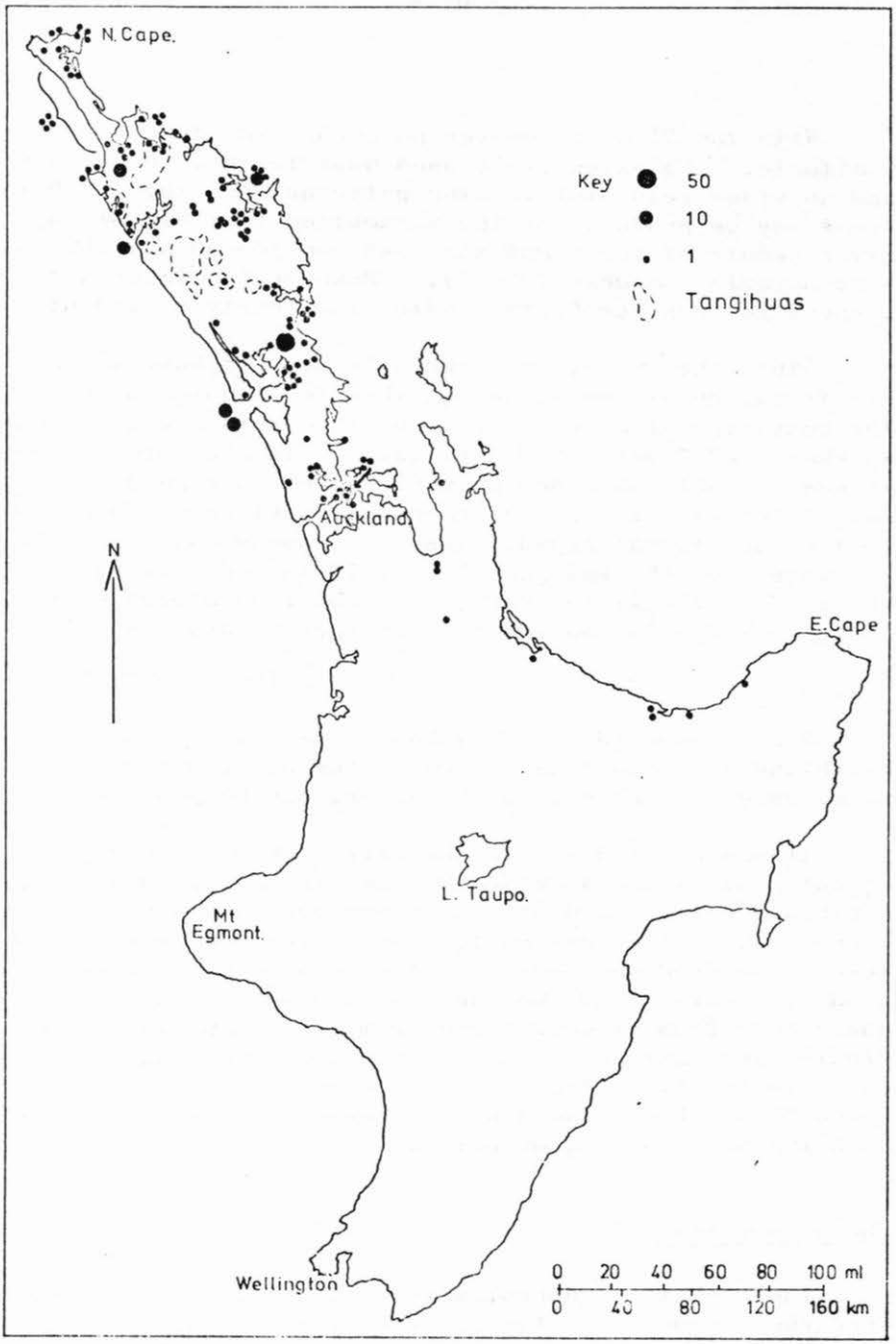

Fig.1. Distribution of Northland gabbro adzes.

Colour of weathered surfaces varies considerably, with extremes of dark greenish grey, greyish black, light olive grey and pale olive (Rock colour chart 1963).

Microscopically the texture is hypidiomorphic-granular. Major minerals are plagioclase, augite, chlorite, hornblende and opaques. Minor minerals include sphene and apatite (R. Briggs, pers. comm.).

The field experience of the above geologist enabled him to suggest a possible source for the rock, it being similar to dyke material occurring in the Tangihua massifs. The large opaques, and the alteration of augite to hornblende, are typical of, and possibly unique to, some of the Tangihua intrusives. Two further features however, a blue fringe to the ends of the hornblende crystals, and a high chlorite-hornblende percentage, made it different from any of the dyke material yet examined in the above area.

The distribution of these adzes is shown in Fig. 1. The source of the rock has not yet been found, but geological evidence, which is not refuted by the adze distribution, indicates that the most likely source area is somewhere in the 60% of the Tangihuas not yet studied by geologists.

No time depth exists for the use of this rock. All specimens are from surface collections, and no early form of adze has yet been found in the material.

The presence of a wide-spread distribution pattern in the rock indicates that the material was highly prized, for aesthetic or functional reasons, by the Maori.

Edge-damage and cross-section tests comparing adzes in gabbro, basalt, argillite and greenstone indicate the gabbro to be far superior to the basalt and argillite (Best 1975) and at least equal in strength to the greenstone adze used in the test.

The above work has described the distribution pattern of a 2B adze material, and has indicated that it was the working performance of the rock that caused it to be actively sought after and traded. It is only to be expected that a strong rock able to hold an edge would have been prized and that, political systems permitting, such a rock would have travelled far from its source.

Petrological examination of Classic adzes in other materials will almost certainly lead to the recognition of other distribution patterns. When these are given a third dimension by excavation the archaeologist has a useful tool with which to examine trade systems; their extent, time depth, changes in the relative importance of distribution centres, and use as chronological markers. Changes in economy or technology may also become apparent, as may the movements of men themselves.

I thank D. Simmons for permission to sample the adzes, and G. Irwin for comments.

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