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USE OF INLAND TARANAKI ROCK SOURCES FOR ARTIFACTS

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SUMMARY

Indurated sandstone/greywacke lithic material from inland Taranaki river exposures was a local source of raw material. In particular, a hard greenish impure chert had wide use.

INTRODUCTION

This paper draws attention to the use of additional local rock materials for Taranaki artifacts. Previously the only local rock type to be regarded as significant in the prehistory of the area was the abundant, hard, dark-grey, hornblende-augite-andesite from the older flows of Mount Egmont and from eroded remnants of earlier local volcanoes. Because of its coarse crystalline nature, this material was restricted primarily for artifacts that did not require a sharp cutting edge like pounding implements. For adzes however (where a sharp cutting edge was required) use of a range of imported fine-grained metasomatised rock types from the Nelson-Marlborough "Mineral Belt" can be recognised amongst archaic types. Apart from other artifacts made from imported serpentine, nephrite and obsidian, use of indurated rocks of sandstone/greywacke composition for adzes, both of archaic and classic type, occurs frequently.

The source of much of this greywacke material has generally been placed beyond the Taranaki region to areas like the North Island axial ranges and the South Island where many of these indurated wacke-type rocks can be matched. Recently however, with the examination of a range of Taranaki artifacts and through correspondence with Messrs R. H. Hooker (lately of Stratford) and G. Watemburg (of Waitara) who have been conducting archaeological field work in inland Taranaki and examining material supplied by them, it is now possible to place many of the cherty and sandstone/greywacke rocks that were used for artifacts in a local setting and not necessary to attempt to match them with similar rock-types beyond the region.

GREEN IMPURE CHERT SOURCE

In 1969, Mr D. R. Simmons mentioned to the writer that while examining artifacts in the collections of the Taranaki Museum he had noted that a hard greenish rock had been used in the manufacture of many local artifacts and suggested that a local source could be a possibility (though none was known). Since then artifacts from various inland northern Taranaki localities (Tarata and Purangi areas) have been examined that were made from a greenish chert which confirmed that it was a rock material of local archaeological importance. Its source still remained in doubt until Mr Watemburg first collected loose rocks of similar lithology along the roadside at Purangi (a small inland settlement on the south bank of the Waitara River; Grid Ref. N109/074807 2nd edit.) and later collected identical material as pebbles from the Waitara River. Later he was able to match these specimens with exposures in two local quarries; one situated several miles to the north (Grid Ref. N109/077831) of Purangi and the other immediately south-west of Purangi sited in a Reserve (Grid Ref. N109/082798). In both quarries the rock has been exposed as a broad outcrop where it is associated with beds of fine indurated sandstone/greywacke conglomerate. It is also naturally exposed in nearby creeks which flow into the Waitara River. The rock type can be described as a hard greenish (from pale green to dark blue-green) fine grained impure chert (varying towards a cherty mudstone) with a subconchoidal to splintery fracture. It possesses all the requirements of good adze making material. Further exposures of a similar rock could occur in other parts of the district but it is likely that creek exposures along the Waitara River adjacent to Purangi were the source of the stone used by the Maori in North Taranaki. It could have been collected in place or as boulders either in the side streams or along this stretch of the Waitara River.

SANDSTONE-GREYWACKE TYPES

In the course of his field-work in the Mangaehu Valley (the main tributary of the Patea River which drains the Matemateaonga Range), R. H. Hooker (see this issue) recovered a range of artifacts - from broken adze roughouts to numerous flakes. He also collected from the stream gravels and, from exposures along the stream banks, a range of rock types that were identical with the material used in the artifacts he found as well as others that seemed to be of potential archaeological interest. (In the latter category may be mentioned a schist similar to the "green schist facies" of North-West Nelson and a harzburgite serpentine, known to occur north-east of Aria, one mile south-east of the Wairere Falls). The wacke-type rocks covered a range of well-indurated

dark grey fine to coarse grain mudstones and sandstones, silicified (cherty) greenish mudstones and sandstones and grey argillaceous chipwacks. Many of these lithologies match those of artifacts held in private and museum collections, thus making it likely that suitable rocks exposed along the banks of or in stream gravels of many of the inland Taranaki rivers were employed for artifacts.

ORIGIN AND INTERPRETATION

The surface rocks of the inland Taranaki area were first mapped by Morgan and Gibson (1927) as Urenui Beds and later by Hay (1967) as Urenui Siltstone. These rocks are predominantly soft micaceous siltstones but contain conglomerate bands of greywacke pebbles. Because of the mica present in the siltstone, Morgan and Gibson (1927: 34) believed the sediments were originally derived from an old land mass of Paleozoic rocks (like North-West Nelson) that lay to the west (Cope and Reed, 1967: 66), thus making it possible that old Paleozoic rocks could also form some of the boulders in the Urenui Siltstone. Morgan and Gibson (1927: 34), however, compared indurated greywacke pebbles in the Urenui Siltstone conglomerates with Mesozoic greywackes, and Hay (1967) recognised the conglomerate boulders as being derived both from older Tertiary formations as well as from Mesozoic rocks. The source of many of the stream boulders used for artifacts could therefore be from older rocks forming conglomerate lenses in the Urenui Siltstone (originally derived from erosion of Mesozoic greywackes), or could be from underlying basement rocks of Mesozoic age being eroded by streams. Triassic and Jurassic greywacke type rocks are exposed in the eastern highlands (Hay, 1967) and are known to underlie the Tertiary sediments (Cope and Reed, 1967: 65-66). All artifacts and river samples examined from the Mangaehu area are of grey indurated sandstone/greywacke and silicified mudstone rock type. These, along with the green impure chert from Purangi, have a decided lower Mesozoic appearance (? Triassic) and are thus derived from Mesozoic basement rocks.

It seems then that rocks exposed in inland rivers were selected and used by the Taranaki Maori for artifacts, and this rock source provided a local secondary supply of raw material for the region.

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