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# A RECORD OF ABORIGINAL IMPLEMENT SITES IN THE OUEENSTOWN AREA, TASMANIA

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(with one text figure)

#### ABSTRACT

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Sites containing aboriginal flaked stone implements have been discovered in the Queenstown area, some 30 km inland from the west coast of Tasmania. The sites occur mainly on low ridge tops along the East Queen River and Reservoir Creek, and have been exposed only after removal of the original cover of rainforest and peat around the mine area. They suggest extensive inland habitation by the aborigines prior to the establishment of the now-widespread rainforest.

#### INTRODUCTION

Numerous aboriginal flaked stone implements were discovered by the author during geological mapping of the Cambrian volcanic rocks around Queenstown (1450 33'E. 420 5'S) in 1975-76. Since there are no previous records of aboriginal habitation in the area (e.g. Sutherland 1972), the sites are herein recorded with a brief discussion of their significance. It must be emphasised that the site map (fig.1) is not meant to be comprehensive, but merely records those places where the author happened to find implements in the normal course of his mapping. There are undoubtedly many other sites in the area which have not been seen, and in adjacent areas which have not yet been mapped in detail. Mr. S.F. Cox (pers.comm.) has discovered more sites further north on the East Queen River. The site beside the access road to the Prince Lyell open-cut was drawn to the author's attention by Mr K.O. Reid of the Mt Lyell Company.

# TOPOGRAPHY AND GLACIAL FEATURES

Queenstown is situated some 30 km inland from the west coast, at an altitude of 150 m. It lies at the western foot of the rugged West Coast Range, which locally rises to 1100 m on Mt Owen and 900 m on Mt Lyell. A low ridge at about 500 m (Philosophers Ridge) separates these two mountains, and a broad east-west valley cuts through the range just north of Mt Lyell (Comstock Valley) to connect with the King River valley to the east.

The country around the aboriginal sites represents the inland edge of an irregular erosion surface (Henty Surface) which extends westward to the coast. The surface has been heavily dissected to produce numerous small steep-sided ridges and hills with more or less flat tops. There are many small creeks and gullies which drain into the Queen River and its tributaries. The Queen River flows south for about 10 km before joining the King River, which cuts through the range and debouches into Macquarie Harbour.

Evidence from erosional and depositional features strongly suggests Pleistocene glaciation of the Queen River valley between the Mt Lyell Company mill and south of Lynchford, and of the valley of Conglomerate Creek. Evidence includes U-shaped cross-section, planed-off spurs, and deposits of coarse bouldery gravel "plastered" on the valley sides. The bouldery material, which occurs up to 50 metres above the present

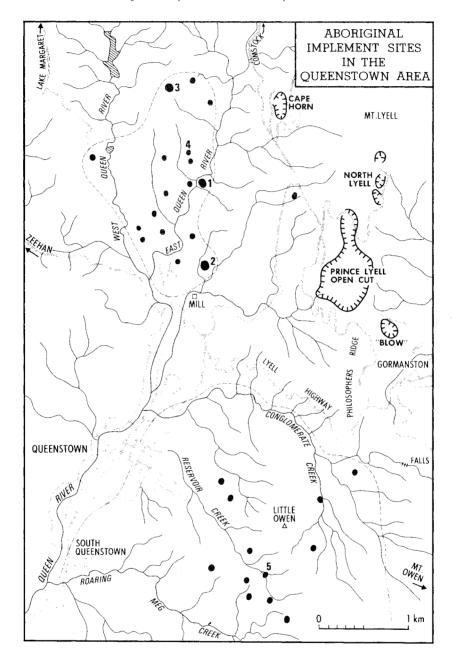


FIG. 1.- Map of aboriginal implement sites recorded in the Queenstown area. Large black dots indicate major sites. Numbers are referred to in text. Dashed line indicates approximate limit of detailed geological mapping by the author.

valley floor (Corbett, 1979), contains rounded blocks of Owen Conglomerate up to 1.5 m across, as well as irregular lenses of brown sandy clay with dispersed clasts. The deposits overlie weathered Gordon Limestone in the lower part of Conglomerate Creek and just west of the Mt Lyell mill, and in both areas the black limestone clays show considerable contortion. The highly disturbed (but still more or less in-situ) black clays at Conglomerate Creek are irregularly penetrated by gravelly material in places, probably due to glacial over-riding. A few remnants of similar bouldery material were noted in the middle reaches of the East Queen River, but evidence for glacial erosion in this area is not obvious.

Considerable stream dissection of the glacial topography appears to have occurred in Conglomerate Creek, resulting in a series of small overlapping spurs below the level of the original glacial valley floor. At least one of the aboriginal sites lies close to the present valley floor, suggesting the occupation post-dates the glaciation.

# VEGETATION HISTORY AND SITE PRESERVATION

That the sites have been discovered at all is mainly a consequence of the lack of vegetation in the area. The original rainforest which blanketed all but the higher peaks in the area when white man first arrived was mostly killed off by sulphur fumes from the early pyritic smelting around the turn of the century. Clearing for timber, together with frequent bushfires, accounted for the rest (Kirkpatrick 1977 a, b). Frequent fires since those early days, and erosion of much of the soil cover, have prevented the re-establishment of the forest. The present vegetation consists of sparse colonizing shrubs, with scattered dense thickets, or is virtually non-existent.

The peat layer below the forest cover has been burnt and/or removed by the erosion consequent on the high rainfall, and much of the underlying soil has also been stripped off. The artifacts which remain, therefore, represent a lag deposit preserved on the flatter areas where runoff erosion has not been so effective. Their relationship to the original soil and peat layers is not known. Any original charcoal or other light organic material would also have been destroyed or removed.

The vegetation cover becomes considerably denser to the west and south of the recorded sites, so that recognition of sites in these areas would be much more difficult.

# DESCRIPTION OF THE SITES

Of the 30 sites recorded, 18 lie to the north of Queenstown and are concentrated along the East Queen River, and 12 lie to the southeast of the township, mostly in the vicinity of Reservoir Creek. Most of the sites are on the flat crests of ridges, or on saddles, or on small flat areas above creek level. There are no significant natural caves or rock shelters in the area mapped. The majority of sites merely represent a few implements scattered over a small area, with an occasional core stone or rounded cobble. The artifacts are easily recognizable because they normally consist of non-volcanic rock-types (usually pink quartzite) which are exotic to the site. The implements show the typical flaked structure recorded from elsewhere in Tasmania.

Three major sites have also been identified. These contain many implements, usually scattered over an area of several hundred square metres, and appear to have been relatively major habitation sites. Site 1 (fig.1) is situated on a flat, partly scrub-covered area on the nose of a small ridge about 30 m above the East Queen River on its east bank. A quick survey of this site showed about 55 flaked stone implements (probably including some discard flakes), 22 core stone, 3 roundstones (pounders?), 1 flat stone, and numerous bits of worked vein quartz, scattered over the area. Site 2 is located on the top of a low bare ridge about 400 m north of the Mt Lyell Mill.

Several dozen flaked implements occur at this site, as well as core stones and round cobbles. Site 3 is located on the watershed between the East and West Queen Rivers, near am old tramway cutting. It contains several dozen implements and some core stones.

#### ROCK-TYPES USED FOR IMPLEMENTS

The rock types represented in the implements and core stones mostly indicate derivation from the Queenstown area. The most common rock is pink or white quartzite derived from rounded pebbles and cobbles which occur in the creek beds and in glacial (?) deposits fringing the major stream valleys. Many of these were derived as rounded clasts weathered out of the Owen Conglomerate (Cambro-Ordovician) on the adjacent mountains, although ultimately derived from the Precambrian area to the east. In some cases, river cobbles of silicified sandstone and fine conglomerate derived directly from the Owen Formation have been used.

A few implements made from fine-grained cherty volcanic rock were also noted, including some of banded volcanic hornfels. In only one case, however, at Site 4, did it appear that these were derived from an outcrop rather than from stream gravels. In this case, small fragments of hard cherty material occurring as clasts in a volcanic agglomerate had been worked. A few poorly-preserved bone fragments also occurred at this site.

The only implement rock type which was clearly exotic to the Queenstown area was one of black vesicular volcanic glass (tachylite) at Site 2. This material is only known in association with the Tertiary basalts of Tasmania, the nearest occurrence of which is some 50 km to the northwest in the Granville Harbour area.

Fragments of white vein quartz occurred at many of the sites, but as this material is almost ubiquitous in the area it was seldom possible to establish whether or not its occurrence was fortuitous. The vein quartz is derived from numerous veins up to a metre thick which intrude the acid volcanic rocks and which weather to produce a lag deposit which blankets many of the low hills and ridges in the area. The material is hard and fine-grained, but breaks into irregular-shaped pieces. Its abundance and ease of procurement suggests it was probably used by the aborigines, but there is no clear distinction between implements and the naturally-occurring fragments. Clear, well-formed crystals of quartz, up to a few centimetres long, occur in some of the veins. At least one of the sites (Site 5 near Reservoir Creek) was situated adjacent to a deposit of these quartz crystals, suggesting the natives may have quarried them for ornaments.

## DISCUSSION

The presence of abundant flaked stone implements around Queenstown indicates that the area was frequented by the Tasmanian aborigines at some stage prior to the arrival of white man in Tasmania. It seems unlikely that the natives would have penetrated the dense rainforest which clothed the area, extending almost to the coast, at the time of white settlement, and there are no historical records of natives in the area. Hence the habitation sites may pre-date the establishment of the forest. The sites probably post-date the known glacial activity in the area, but no attempt has yet been made to date the glacial deposits.

The discovery of the artifacts was a fortuitous result of the removal of the vegetation and the peat layer from the area by the activities of the early miners. It seems highly likely that many other sites lie buried beneath the peat, rainforest and scrub in surrounding areas. If access to the Queenstown area was possible, there

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seems no reason to suggest that the valleys further inland were not also frequented. Aboriginal artifacts have recently been discovered in Late Pleistocene cave deposits in the Florentine Valley in central Tasmania (Goede and Murray 1977). This area is now occupied by rainforest but was probably open savannah woodland at the time of aboriginal occupation, which was prior to the climatic warming and invasion of forest at about 11 000 years B.P. (Macphail 1975).

Part of the reason for aboriginal habitation in the Queenstown area may well have been the occurrence of mineral deposits. The weathered ironstone gossans covering some of the copper orebodies on Philosophers Ridge (e.g. The Blow) would have provided an abundant source of ochre, and there could well have been brightly coloured secondary copper minerals which were mined for ornaments.

#### ACKNOWLEDGEMENTS

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