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A POLISHED NEPHRITE KNIFE FROM ARTHUR'S PASS, NEW ZEALAND

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Polished stone knives of circular to rectangular outline, given the Inuit name "ulu" by H.D. Skinner (1974), are restricted to southern New Zealand. Their geographic distribution is very similar to that of South Island moa-hunting sites and indeed many of them were found in such sites (especially Waitaki River Mouth, Shag River Mouth, Hawkesburn, etc. See Anderson 1989:158, Skinner 1974:115).

The results of a microwear analysis carried out by Lawrence Buckley (1978) are consistent with the earlier suggestion by Skinner (1974:115) that these artefacts were used for skin cleansing and tendon and gristle cutting on dog, seal, moa and other animals. Buckley (1978:56), however, extends the likely functional range to include "cutting up carcasses, cutting skin free, scraping down fresh and dried skin, cutting up skin for clothing ...In other words, the ulu was probably a multifunctional tool, as it was for the Eskimo".

The association of ulus with moa-hunting sites leads Atholl Anderson (1989:158) to include them in the range of stone tools likely to have been used in processing moa carcasses. Slate is the material most commonly used for the manufacture of these artefacts, but schist, argillite and occasionally nephrite are also used.

In August 1989, Mr B. Sykes of Christchurch found a polished nephrite knife very near the summit of Arthur's Pass. It was found amongst vegetation-covered scree a few metres from the Arthur Dudley Dobson monument, just north of Highway 73, at 920 m above sea level (Fig. 1). At 80 x 60 x 15.5 mm, it is of average size, although somewhat thicker than most, with a pronounced bulge on one side (Fig. 2). It appears to have been made from a piece struck from a larger block of nephrite. It has been ground over much of its surface; mostly as part of the process of producing the very convex, almost half-moon shaped cutting edge characteristic of most of these tools. The only areas not polished are hollows and rough edges which did not require grinding to produce a working tool. The artefact shows some similarities to an ulu found at Coal Creek in Central Otago (Anderson and Ritchie 1984).

Nephrite is very difficult to source routinely using analytical techniques (Ritchie 1976:Ch.6). However, even by

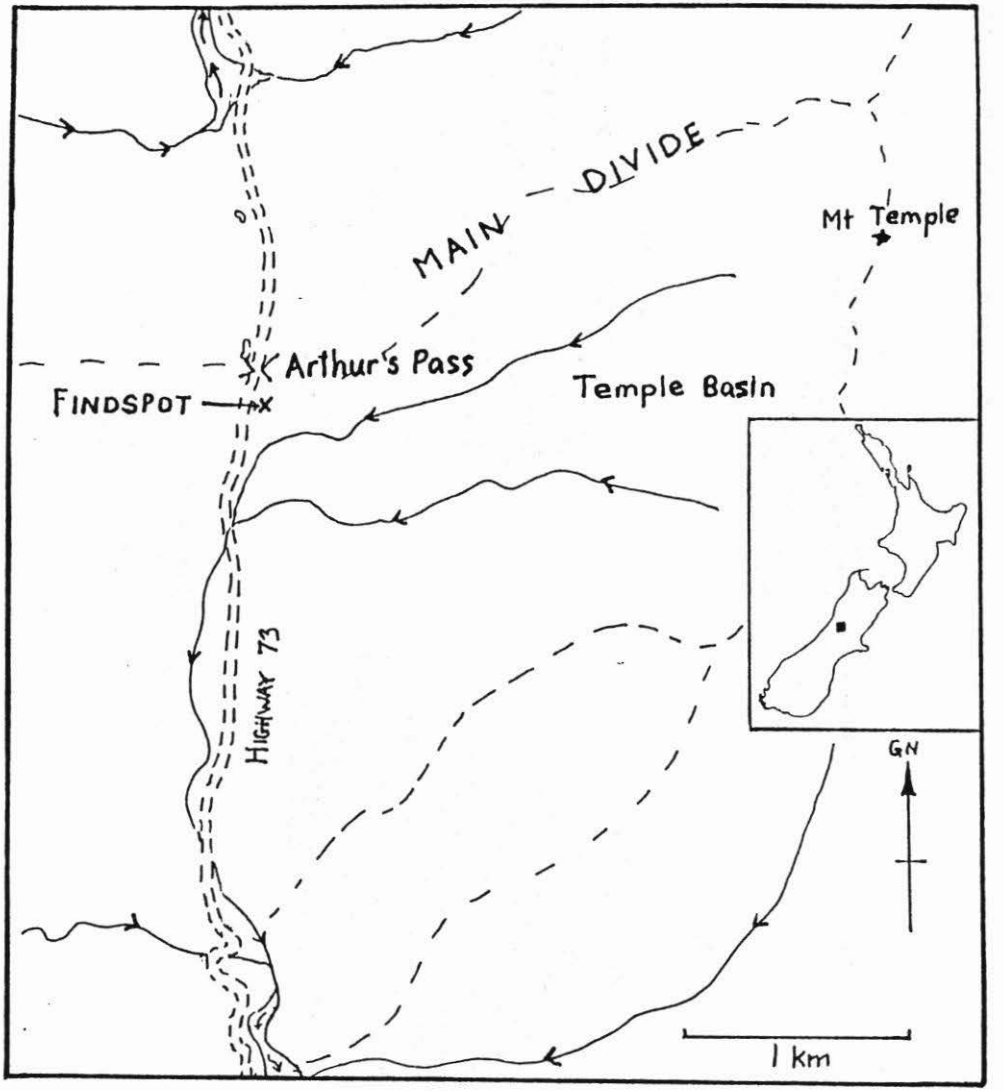

Figure 1. Map showing location of artefact findspot.

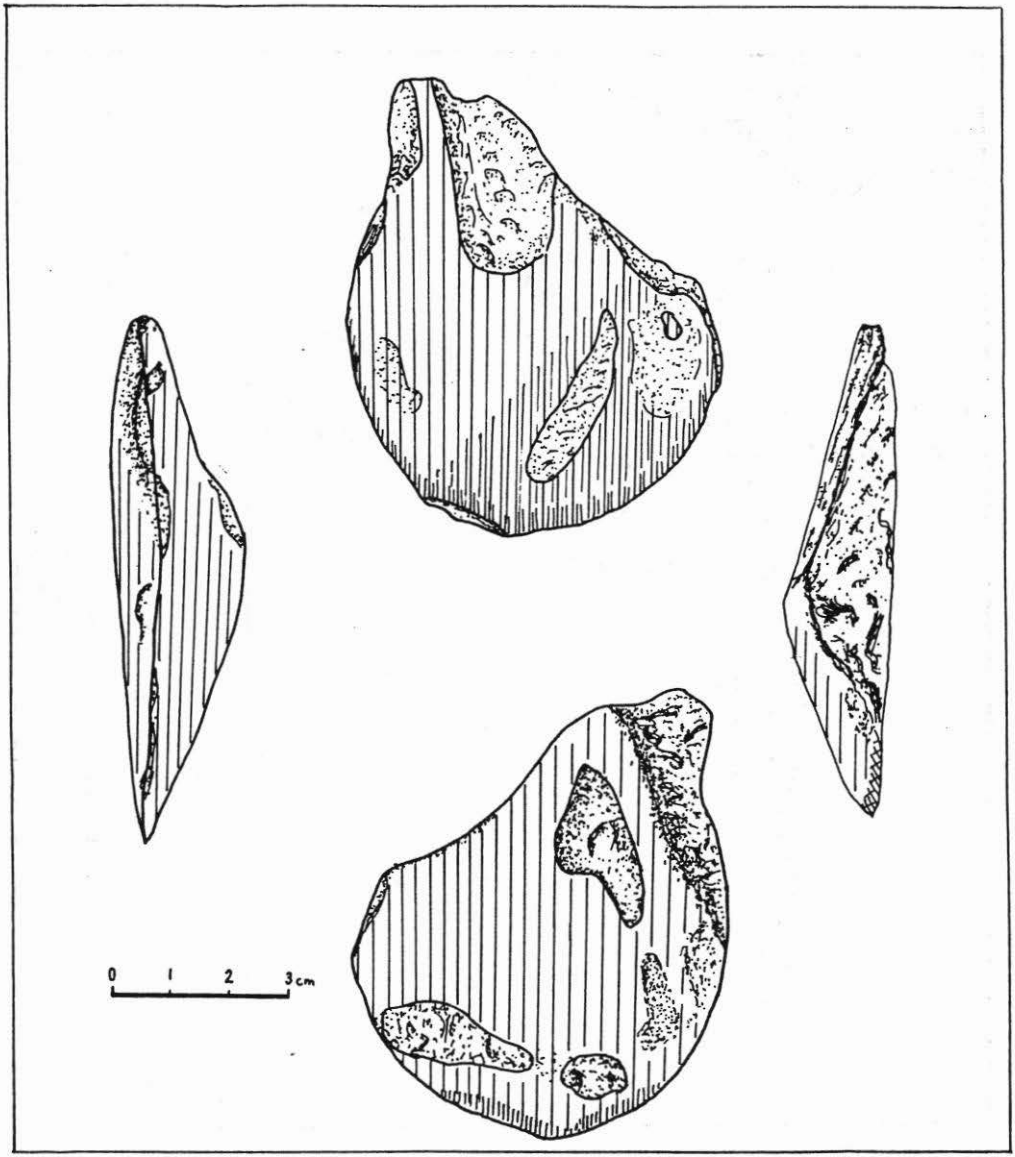

Figure 2. Diagram of polished nephrite artefact found at the summit of Arthur's Pass.

hand specimen examination, it is clear that the various nephrite source fields produce stone of differing physical character. Russell Beck, of Southland Museum, has amassed a considerable knowledge of the different field characteristics through many years of study (see Beck 1984). He examined the Arthur's Pass artefact under a stereo microscope at low magnification and reported as follows:

> "Structure: Quite schistose with numerous slickensided surfaces and feather fractures giving it a scaly look. Micro kink folds present, especially near the top, with some trace of the distinctive healed cross fractures so typical of Dart River stone. No inclusions of other minerals observed.
>
> Colour: A medium to dark green with a decided olive hue and quite translucent with an oily look.
>
> The structure is similar to the Dart River deposit but the colour is more in line with Westland, although this colour can occur in the Otago sources. The Coal Creek ulu appears to be made from very similar stone and I would tend to give them both a provisional Otago source. There is considerable overlap of characteristics with this type of material from each source which compounds the problem. I noticed that around the cutting edge traces of a dark waxy substance is adhering which could yield interesting information" (Beck pers. comm. 1990).

The find-spot is a considerable distance from the nearest recorded archaeological site. To the west, several sites and find-spots are located in the vicinity of Lake Brunner, 50 km distant, while to the east, the nearest are in the Broken River valley, a similar distance away. There is little documentary evidence to support the idea that Arthur's Pass was known in pre-European times (but see Brailsford 1984). It is tempting to cite the find as evidence for use of Arthur's Pass in the quest for nephrite. Given the probable Otago source however, it seems equally likely that the artefact found its way there as part of a journey which had nothing to do with obtaining nephrite.

Having been found on the surface, rather than in an occupational deposit, there must remain an element of uncertainty as to how the artefact got to Arthur's Pass. Taken at face value however, it seems to point to a pre-European, and possibly very early, knowledge of the existence of a crossing of the Great Divide at the pass rediscovered in 1864 by Arthur Dudley Dobson.

Acknowledgements

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