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**NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER**



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EXCAVATIONS AT SITE N38/140, MOTUTAPU ISLAND, AUCKLAND

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In late December 1972 an excavation was carried out on a small 9 x 3 m terrace at the seaward end of the undefended ridge site N38/140 (Fig.1). The excavation formed part of fieldwork associated with the Auckland Institute and Museum Motutapu project, and followed on from an earlier excavation to investigate the function of terraces associated with undefended Maori sites. Previous to the excavation of site N38/30 at Station Bay, Motutapu, most archaeological investigations had concentrated on pa, pit sites and middens and it was felt that some attention needed to be given to terraces.

Terrace site N38/30 (Leahy, 1970 and 1972) produced some interesting results in the form of a house floor with two associated pits and a number of artefacts.

The excavated terrace at site N38/140 (Figs 2 and 3) on the north side of Motutapu was chosen as it was in a similar position to that excavated at N38/30, namely the last terrace of a series down a ridge. It was considered that terraces may have had a variety of functions including those of living places, storage, agriculture and cooking and that further excavations would help establish some of the activities which may have been associated with them. Site N38/140 was also situated behind and inland from Pig Bay where the archaic midden site, N30/21, was dug by Golson in 1957-58 (Golson and Brothers, 1959; Golson, 1959:45-46) and it was hoped that a dateable living site might be uncovered near an area where archaic midden material had previously been excavated.

The ridge on which the site is situated consists of a high point (c.90 m above sea level) and a spur running down in a north-westerly direction. The end of the spur drops steeply to the confluence of two streams. These drain into the swamp behind Pig Bay beach. (For a general description of Motutapu Island, its geology and archaeology, see Davidson, 1978).

The site is bounded on its inland side by a well-defined terrace and scarp cut across the eastern approaches to the high knoll. This terrace and scarp continues as a faint indentation for some distance round the base of the knoll. It may once have joined the terrace at the western base of the knoll but there is little evidence for that now.

A number of large eroded sandstone boulders protrude from the flattish top of the knoll. One of these has a small rounded basin in its top. It is not clear whether this has been artificially or naturally formed.

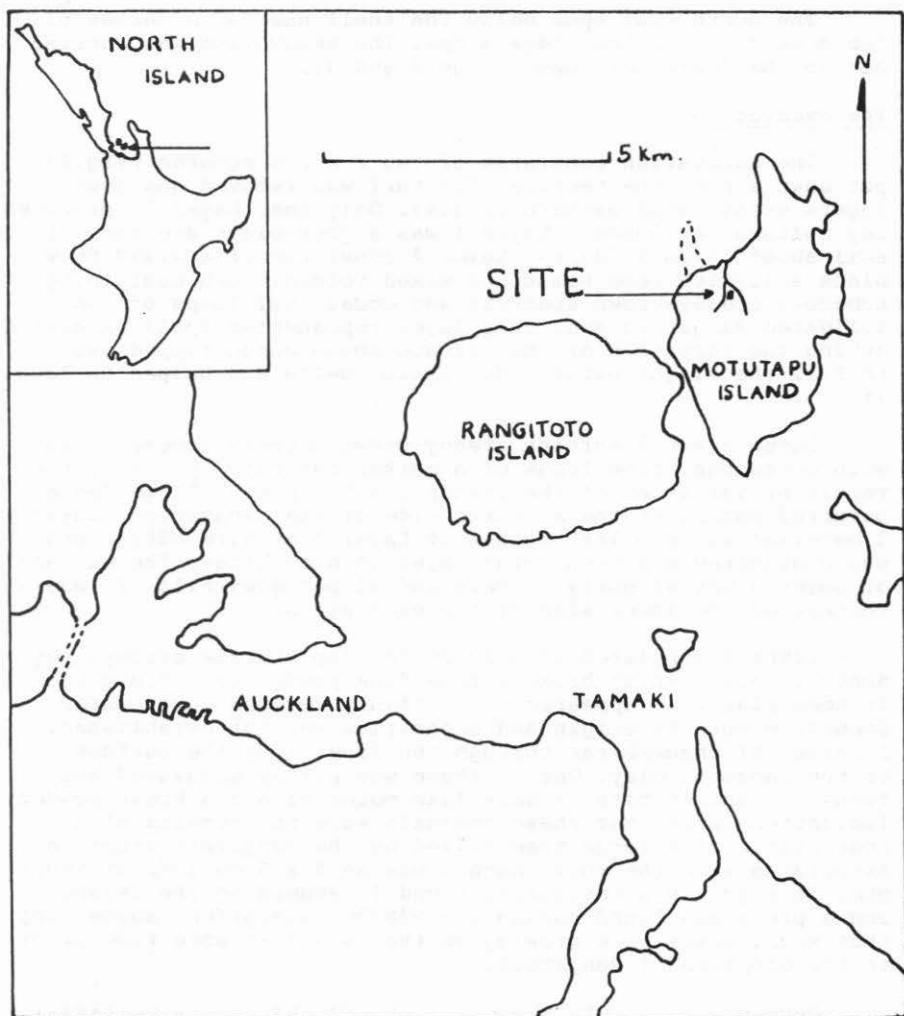


FIGURE 1. Location of site N38/140.

The north-west spur below the knoll has had a series of terraces cut into the ridge slope. The excavation was carried out on the lowest of these (Figs 2 and 3).

#### The excavation

The excavation consisted of two 2 x 2 m squares (Fig.2) put down across the terrace. The turf was removed and four layers established beneath (Fig.4). Only one, Layer 2, produced any cultural evidence. Layer 1 was a grey-black sterile top soil about 10 cm in depth. Layer 2 consisted of a mixed brown-black soil with some humus and mixed volcanic ash containing numerous creamy-brown speckles and occasional lumps of consolidated Rangitoto ash. This layer represented spoil excavated during the formation of the terrace above which tipped over to fill the slight natural depression below and helped to level it.

Layer 3 was a softish greeny-brown loosely compacted ash with occasional fine lense of a darker material, possibly the result of variation of the volcanic ash deposit. These lenses occurred mainly on the southern side of the excavation. Layer 3 material was similar to that of Layer 2 at site N38/30 and was considered a non-cultural layer in both sites. The surface of Layer 3 was slightly concave and sloped down hill. It was thicker on the lower side of the excavation.

Layer 4 consisted of a 20-30 cm deep sterile creamy-grey dusty material which broke into a fine powder when disturbed. In some places it appeared to be thinly layered as if water deposited but its origin and deposition was not established. A series of channels ran through the layer from the surface to the basement clay. One of these was partly excavated and found to contain bits of bark-like material and a brown powder. Indications were that these channels were the remains of a root system of a large tree killed by the Rangitoto eruption. Associated with the root channel was an 8 x 5 cm lump of kauri gum. This gum is occasionally found in swamps on the island and a piece was found during the N38/30 excavation, suggesting that kauri trees were growing on the island at some time prior to the eruption of Rangitoto.

Square 1, the more southerly square was excavated first. In the north-eastern part a lense of fine wood ash about one metre in diameter was exposed. It filled a shallow basin-shaped fire scoop cut into Layer 2. This ash filled scoop and ash scatter and that in Square 2 represented the final and only activities on the terrace and is associated with Layer 2. The edge of the ash in Square 1 just entered the north baulk.

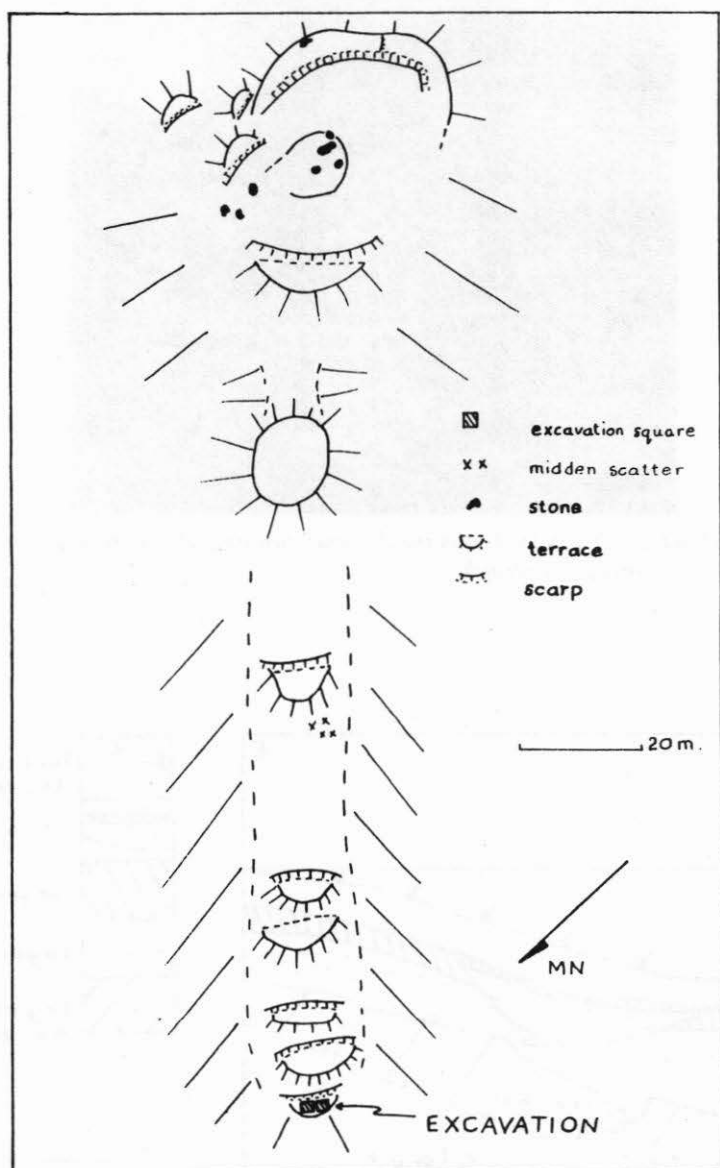


FIGURE 2. Sketch plan of site N38/140.



FIGURE 3. Site N38/140 is on the spur running off the high point in this photograph.

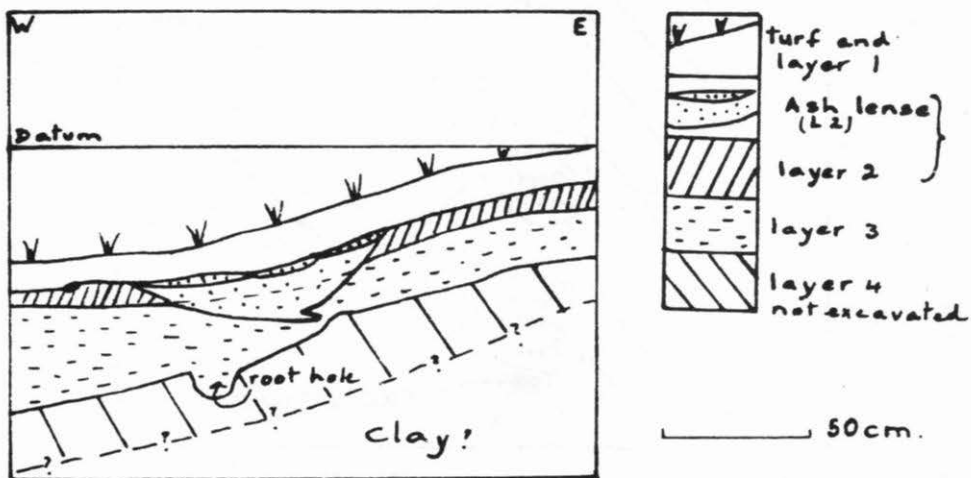


FIGURE 4. Stratigraphy, north baulk, Square 2, N38/140.

Layer 3, the greeny gritty volcanic ash, formed a 20 cm thick sterile layer at the east (upper) side of the square but deepened rapidly to about 60 cm on the down hill side. This layer was fully removed exposing the fine powdery natural Layer 4. Apart from the tree root, Layer 4 was not removed.

Square 2, to the north of Square 1, was not fully excavated following the removal of the turf and Layer 1. Only a one metre east-west strip was continued. Layer 2 was similar to that of Square 1 but was more irregular where it rested on Layer 3 at the base of the upper 'scarp', due to down-slope erosion. Layer 2 contained a number of greywacke stones, both water worn and fractured, in its north-eastern portion. A depression and ash lense similar to but deeper than that in Square 1 occurred in the northern part of the square and showed half-sectioned in the northern baulk (Fig.4). This second hangi scoop was dug through Layer 2 into Layer 3 and contained several wood ash lenses. It was capped with a thin yellow ash deposit and the nearby stones were probably associated with it. Layer 3, then reduced to a one metre northern strip, was excavated to the surface of Layer 4, where another root channel was exposed. The excavation was then closed.

### Interpretation

From the excavated evidence it appears that the lowest terrace in Site N38/140 was a natural feature later incorporated in the site. This feature resulted from the deposit of volcanic ash against a large tree which dammed up the ash on its upper side, leaving a 'notch' on the slope before it rotted away. Subsequently, spoil from the digging of the terrace above (a test pit established a cultural layer containing two greywacke flakes) was thrown down to cover and partly fill the slight depression, forming the basis of a flat area. The back 'scarp' was not artificially formed and its angle was probably emphasised by the trampling and consolidation of the excavated material from the upper terrace.

The surface of Layer 2 was subsequently used for hangi and fire pits. No artefacts or features other than the hangi were found.

The excavated 'terrace' was not a formal part of Site N30/140 but became integrated into it, at one period, as a cooking area. It shows the difficulty of distinguishing real from incidental terraces and other features during field recording. The ground evidence for this terrace was no more amorphous than those excavated at Station Bay.

There is a need for more excavations of terraces to establish the variety and combination of functions within the larger settlement and overall settlement pattern.

Acknowledgements

I would like to thank the then Director of the Auckland Institute and Museum, Mr. E.G. Turbott, for assistance in this project, and also Janet Davidson, Roger Green, Garry and Miranda Law, Agnes Sullivan and Wendy Walsh for discussions during the excavation.

John Coster and I revisited the site in 1984 and made the sketch plan.

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