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FURTHER EXCAVATIONS AT WAREHOU PA, SITE N 160/1,
AT MAKARA BEACH, NEAR WELLINGTON

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INTRODUCTION

During October 1967, members of the Wellington Archaeological Society excavated a small area on Warehou Pa (Site N 160/1, Grid Ref. N 160/269304), at Makara Beach near Wellington. The purpose of the excavation was to obtain cultural material for comparison with that found on other sites in the area. This report describes the results of the 1967 excavation. The results of excavations on other sites at Makara Beach (Sites N 160/105, 106; N 164/2) are to be described elsewhere (McFadgen, 1967; and Yaldwyn, in preparation).

Warehou Pa, a headland pa, is located on a small promontory at the western end of Warehou Bay, between Makara Beach and Cook Strait, on the west Wellington coast (Figure 1). Previous archaeological work on the site is described by Brodie (1962), who obtained radiocarbon dates indicating occupation since about A.D. 1700, and by O'Rourke (1962), who reported an investigation of part of the site defences. The reader is referred to these reports for further information about the site in general, and its surroundings.

Two terraces on the eastern side of the site (I and II, Figure 1) were selected for excavation. They were separated by a bank nearly a metre high. Terrace II, at the foot of the bank, was divided into two parts (IIa and IIb, Figure 1) by a low, poorly defined scarp.

Two adjacent areas (Squares 2 and 3, Figures 1 and 2), each 10 ft square (3.05 m by 3.05 m), were laid out for excavation across the terraces. Square 3 was located at the top of the bank on Terrace I, and Square 2 was located at the foot of the bank on Terrace II. Square 2 crossed the low scarp.

A small area, 2.5 ft square (0.76 m by 0.76 m), alongside Square 3, was first excavated to gain an idea of the stratigraphy likely to be encountered. Excavation of the larger squares followed.

RESULTS

Cultural activity within the excavated area was represented by postholes, and by the accumulation of a thin layer of cultural material.

Stratigraphy

The stratigraphy recorded during the excavation is illustrated in Figure 2 and described below. Layers are labelled from top to bottom. Layer B₂, not shown in section, occurred between layers A and C. Its relationship to layer B₁ is uncertain.

- Layer A: Topsoil formation, up to 250 mm thick, dark brown in colour, and containing cultural material and waterworn pebbles. It covered all the excavated area.
- Layer B₁: Brown soil, up to 250 mm thick, with yellow mottles, and containing occasional waterworn pebbles. It occurred in both squares, but covered only part of the excavated area. Postholes were cut into its upper surface.
- Layer B₂: A thin deposit of broken, waterworn stones, and rare pieces of charcoal. It occurred only in the small excavated area adjacent to square 3.
- Layer C: Yellow clay, forming an unbroken layer across the excavated area.

The boundaries between the layers appeared, in section, to be gradational. However, the surface of layer B₁ seemed to be slightly compacted and was thus readily distinguished during excavation. The boundary between layers B₁ and C was less well marked.

The lower part of layer A contained the cultural material recovered from the excavation: obsidian and chert flakes, stone, pieces of shell, pumice and charcoal. Particularly conspicuous were the pieces of charcoal, often up to 10 mm diameter, which were concentrated at a level about 150 mm below the ground surface, and which decreased in quantity below this level. Little charcoal was found in the upper part of the layer, which was slightly sandier, and slightly less clayey than the lower part. There were also signs of considerable worm activity.

Postholes, which became apparent after the removal of layer A, were filled with material very similar in composition to the lower part of layer A.

Layer B₁ (the brown soil with yellow mottles) appeared to be a mixture of the topsoil (layer A) and the yellow clay (layer C). It covered a number of irregularities in the top of layer C which are thought

to have been caused by root action. A few waterworn pebbles, up to 60 mm in diameter, were found in the layer, which also contained patches of darker, softer soil. There was no sign of charcoal or other cultural material. The layer was of variable thickness and covered only part of the excavated area. It was present over most of Square 3 on Terrace I, and in the northern corner of Square 2, at the foot of the bank on Terrace II.

The stones of layer B₂ rested directly on layer C and were covered with layer A. Although a few fragments of charcoal were found, and the stones were broken, they showed no signs of having been burnt.

Layer C (the yellow clay) contained no cultural material and was free of stones. A 2 ft (0.6 m) deep hole dug into the layer in the small test area alongside square 3 showed no change.

The low, poorly defined scarp across Square 2 was not apparent as a distinct feature during excavation.

Structures

Postholes: Postholes are listed, with their dimensions, in Table 1, and are illustrated in Figure 2. Eight postholes were found, forming a double row across the upper terrace, at approximately right angles to the scarp at its rear (Figures 1 and 2). Postholes 1 and 2 were dug into layer C in the western corner of the excavation. The remainder were dug into layer B₁. They were filled with a loose mixture of soil and charcoal similar to the bottom of layer A. Posthole 5 also contained a wooden postbutt, 400 mm long. The postbutt was smaller than the cavity which widened at the top forming a small depression. The depression was filled with a very firm fill, similar to the lower part of layer A, but the fill around the butt in the posthole was very loose and the proportion of charcoal was less than in layer A. The wood was not identified. All postholes, except posthole 1, were vertical. Posthole 1 was inclined towards posthole 2.

TABLE 1

Posthole Dimensions

<u>Posthole</u>	<u>Diameter (mms)</u>	<u>Minimum Depth (mms)</u>
1	180 x 140	130
2	140	90
3	130	250
4	130	250
5	120	600 (with 400 mm postbutt)
6	150	200
7	150	350
8	140	150

Cultural material

Four flakes of chert and three flakes of grey obsidian were recovered from the bottom of layer A in Square 3, but they were culturally undiagnostic. Other cultural material found were pieces of pumice, charcoal, and shell fragments which were identified as paua (Haliotis sp.).

INTERPRETATION

The gradational nature of the boundaries between the layers, the slight textural difference between the upper and lower part of layer A, and the signs of worm activity, indicate the action of soil forming processes. These would be sufficient to account for the concentration of charcoal, and the distribution of cultural material, in the lower part of layer A.

The status of layer B₁ is in doubt. Because of the presence of waterworn pebbles and the patches of softer, darker soil, at the time of excavation it was thought to be an artificial fill. Waterworn pebbles, however, occur naturally in soil profiles in the surrounding area, and in layer B₁ may also be natural features. Similarly, root or worm action could account for the patches of softer, darker soil. The mixed appearance and localised extent of the layer suggests the deposition, by man, of a mixture of topsoil and clay subsoil. But its mixed appearance could be due to natural soil formation which would also account for the

gradational boundary between layers B₁ and C; and its localised nature may be due to removal of spoil when the terraces were built. If the layer was artificial, charcoal is unlikely to have been absent, unless the layer was deposited early in the site's construction. To correctly infer the method of terrace construction, whether by cut or fill, depends on correctly interpreting the origin of layer B₁. On the available evidence, a natural origin seems most likely, but future excavation should decide this.

The broken stones and charcoal of layer B₂ appear to form part of the cultural material found in the lower part of layer A. Since the charcoal fragments were rare, and the stones unburnt, it is unlikely that they were part of a fireplace or an oven.

The postholes formed a double row, which curved slightly, across the upper terrace. A fence in this position would provide shelter, for most of the terrace, against a southerly wind; but the area excavated was too small for their purpose to be determined with certainty.

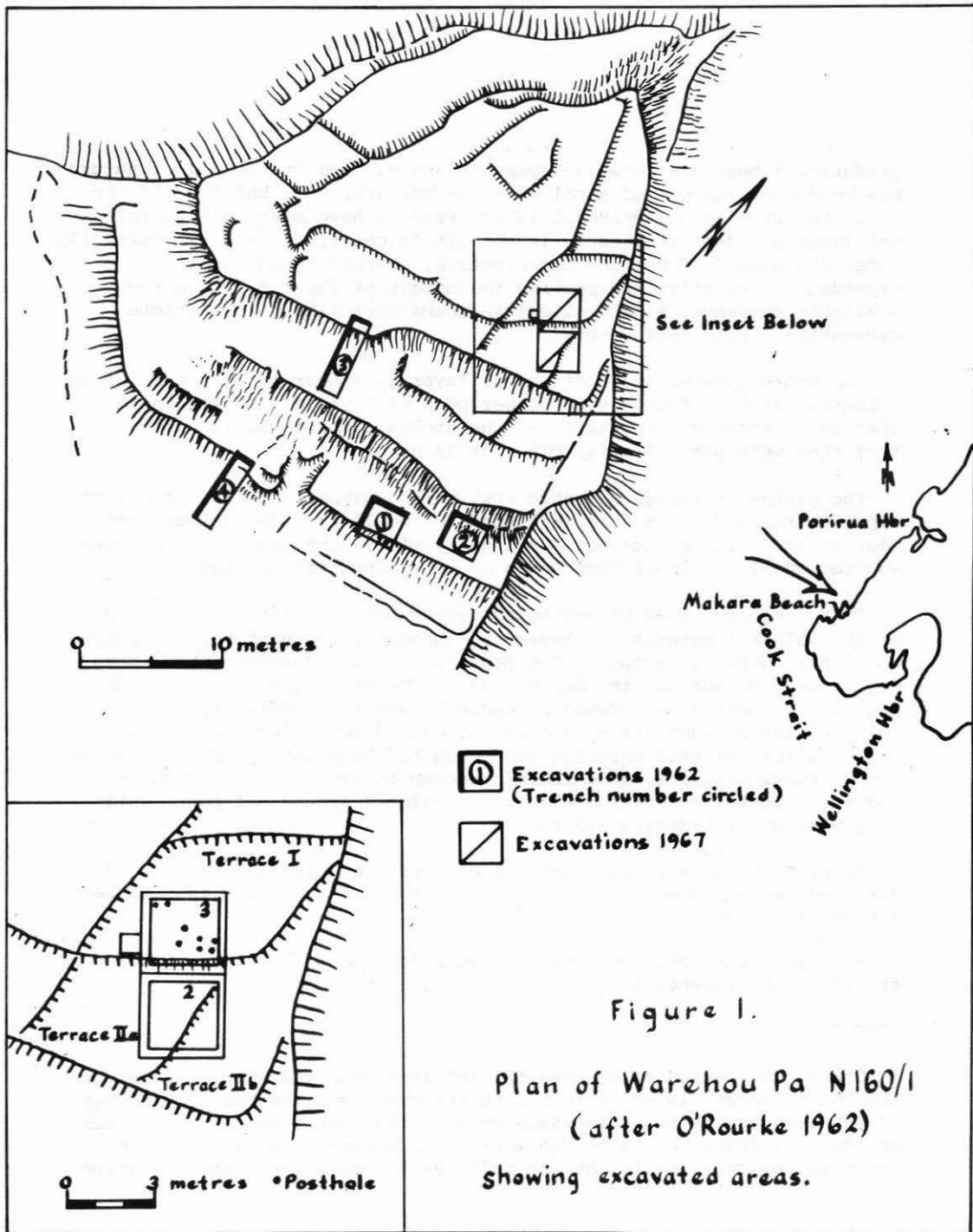
There were no signs of postholes having been cut after deposition of the cultural material in layer A, although subsequent soil formation could have obscured these. The postholes must, therefore, have been dug before, or during, its deposition. The very firm nature of the fill in the depression around posthole 5, and its similarity to the cultural layer, suggests a post was placed in position, and rammed tight, after cultural material had begun to accumulate. The postholes and cultural material would therefore seem to have been contemporary, and the cultural material probably accumulated around the posts while they were still standing and in use.

Layer C, because it was culturally sterile and showed no signs of disturbance to a depth of two feet from the surface, is thought to be the natural layer.

Assuming, therefore, a natural origin for layer B₁, this part of the site has evidence for only one period of occupation.

DISCUSSION

The single period of occupation, inferred from the remains found on the two terraces, is consistent with the results described by O'Rourke (1962) from excavations elsewhere on the site (see Figure 1). Traces of the site defences and midden were found between two soil horizons; the original soil, buried by the cultural deposits, and the soil which



formed on them after the site was abandoned. These indicate a single period of occupation when the site defences; a clay bank and palisade, were built. In the absence of contrary evidence, it is assumed that this occupation coincided with that on the terraces.

A later occupation, postulated by O'Rourke (1962), and based on the two radiocarbon dates reported by Brodie (1962), is doubtful. A sample of shell, found with chert and obsidian flakes, taken from a small terrace along the north-western side of the site, had an age less than 160 years BP. A sample of wood from a totara postbutt, which once formed part of the site defences, taken 60 rings in from its outside, had an age of 310 ± 60 years BP. Allowing for a minimum of 60 years' growth before being cut down, the tree was felled about 250 ± 60 years BP. This date would be more recent if the trunk had been trimmed. The time span within which it is reasonably certain the true date falls, is 250 ± 120 years BP, or between 370 and 130 years BP. Since the shell date falls within this range, it cannot be certain that the two results are not both estimated dates for one period of occupation which occurred during the mid to late eighteenth or early nineteenth centuries.

A single period of occupation, late in prehistory, and the presence of cultural remains on terraces forming part of the site, gives Warehou Pa a potential for future research into the structures and functions associated with fortified sites.

SUMMARY

The 1967 excavations were located on two terraces along the eastern side of the site. A thin cultural layer, associated with a double row of postholes across one of the terraces, was found, representing remains from a single occupation believed to coincide with the construction of the site defences, and probably dating from the late eighteenth century. No artifacts were found.

ACKNOWLEDGMENTS

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