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INVESTIGATION OF A TERRACE AT R26/111, WHITIREIA PENINSULA, PORIRUA

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Elsdon Best's writings on the archaeology of the Wellington area make frequent reference to artificial terraces (Best 1914; 1923). In 1989 the Wellington Archaeological Society (Archaeology Section, Wellington Branch of the Royal Society of New Zealand) began a project to investigate some of these features.

The project research questions are:

- (1) Are the terraces natural or artificial features?
- (2) If artificial, how were they formed, when, and for what purpose?
- (3) If natural, had they been occupied, and if so, when, and for what purpose?

The first results from this project were described in an earlier paper (Walton 1991). Five terraces at R27/136, Titahi Bay, were excavated but no evidence of construction or use was found. This paper discusses the results from a second excavation.

The terraces at R27/136 had all been small. The second excavation aimed to investigate an example of a large terrace similar to those found at R26/115. This site has long been regarded as the most impressive set of artificial terraces in the Wellington area (Best 1914; Daniels 1961; Macnab 1969), although this interpretation has never been tested by excavation. It was considered undesirable to excavate at R26/115 itself, so similar sites nearby were identified and one terrace was selected from a flight recorded as R26/111 (Fig. 1). The terraces at R26/111 are large, but are not particularly regular in shape, nor are the treads always flat. They are, however, in many ways similar in size and form to those at R26/115.

R26/111 (grid reference 656110) was first reported by Elsdon Best (1914), who wrote that 'both sides of the ... little gully are carved into plainly marked artificial terraces, each a few yards in width. Here the presence of water worn gravel in the soil and a ... storage pit for food products, hard by, tend to uphold our theory that these terracings were made for cultivation purposes.' The site lies within Whitireia Park, a recreation reserve administered by the Department of Conservation.

The soils of Whitireia Peninsula are derived from loess and drift and overlie greywacke (a hard compact sandstone). They vary somewhat in their properties due to differences in slope and drainage. The soils of the terraces are usually very wet in winter and very dry in summer.

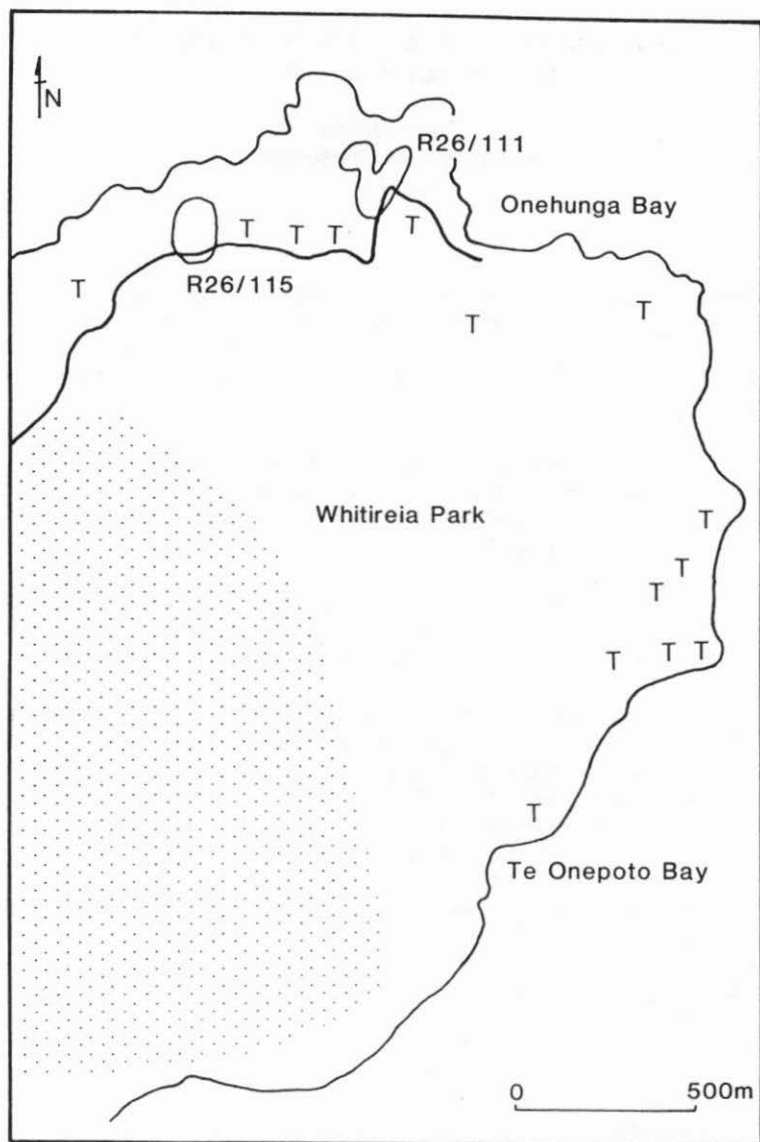


Fig. 1. Whitireia Peninsula showing the location and extent of R26/111 and R26/115. T = other recorded terrace sites. Solid line = road. Stippled area = housing.

METHODS

One and a half days (30-31 March 1991) were spent on the investigation. A 3 x 3 m square was excavated and extended to create a section most of the way across the terrace tread (Figs. 2 and 3). Test pits were also dug.

The methods used were a combination of restricted area excavation and trenching. These methods, and their limitations, are discussed by Walton (1991) in relation to the excavations at R27/136.

The topsoil was removed using spades and then trowels but the ground below was found to be very hard and very difficult to dig. A mattock had to be employed to continue the excavation. For this reason, excavation into the subsoil was restricted to narrow trenches within the square.

RESULTS

Three layers (the term is used loosely) were encountered:

1. 0 - 100 mm. A grey brown topsoil. A silt loam with medium granular structure and abundant roots. Contained numbers of rounded greywacke pebbles and various larger stones. (The latter are regarded as having been deliberately brought to the site.) Distinct boundary.
2. 100 - 200 mm. A light grey clay loam with distinct reddish-brown mottles. Few roots. Occasional rounded greywacke pebbles. Very hard when dry. This layer is composed of the same material as Layer 3 but was slightly less compact. It is interpreted as a layer of artificially redeposited subsoil.
3. 200 mm +. A light grey clay loam with distinct reddish-brown mottles. Few roots. Occasional rounded greywacke pebbles. Very hard to dig. This is interpreted as an undisturbed, *in situ*, subsoil.

The presence of a layer of redeposited subsoil sandwiched between the topsoil and the subsoil (Fig. 3) is clear evidence of modification of the terrace. The modification is, however, only very slight as Layer 2 is, at the most, a little more than 100 mm thick. The areal extent of the layer was not determined: it was found over much of the excavated area, but it was not found in a 800 mm strip adjacent to the north baulk, nor was it found in nearby test pits. It was, however, at least 3.4 m long and 2.2 m wide.

A scatter of rounded greywacke pebbles was found in the topsoil and occasional examples were also found in Layers 2 and 3. The pebbles are similar to those recovered from R27/136 and, again as at R27/136, some were found in the subsoil. Their occurrence in the subsoil makes an explanation in terms of human transportation unnecessary.

The larger stones (which are cobbles, that is, they were all between 64 and 256 mm in length on the long axis), however, must have been deliberately brought to the site. This stone was in a hard, dark grey, fine-grained material.

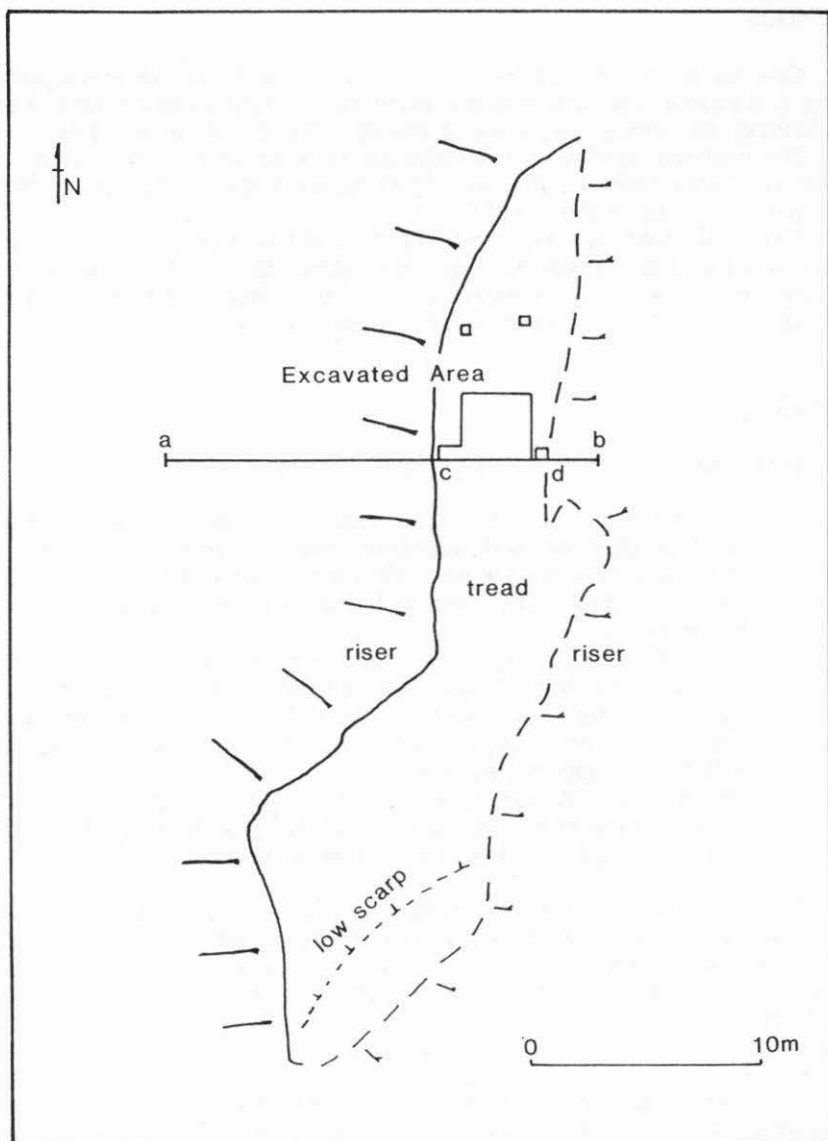


Fig. 2. Plan of terrace at R26/111 showing the location and layout of excavation and position of profile (a-b) and section (c-d). Solid line = outer edge of terrace tread. Dashed line = inner edge of terrace tread.

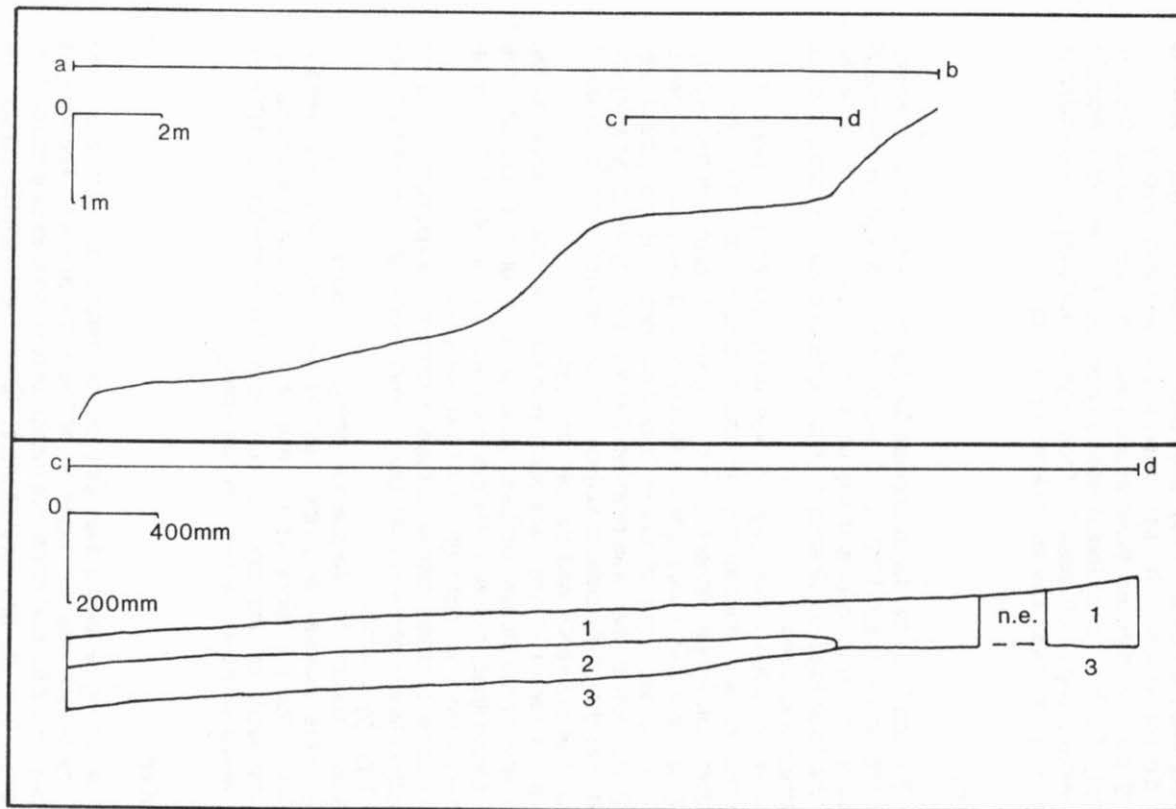


Fig. 3. Profile (a-b) and cross-section (c-d) across excavated terrace tread.
n.e. = not excavated.

Some stones were quite angular as a result of having been broken, but others largely retained their original rounded shape. There is no indication of the use to which this material was put. There was, for example, no sign of any of the stones having been in a fire. They were found throughout Layer 1 and the distribution did not appear to be associated in any way with Layer 2.

Layer 2 and the imported stone material were the only clear evidence of human activity found. No postholes were located, but the dry soil conditions may have masked any which existed. There was no evidence of occupation in the form of charcoal, oven stones, midden, or artefacts.

DISCUSSION

Layer 2 is too insubstantial to account for the terrace formation. Instead, it suggests that some limited form of cut and fill was employed on an already existing natural terrace to level and tidy up a part of the tread. If this is the case, then the layer itself is evidence of how the terrace was modified, but not how the terrace was used.

The material which forms Layer 1 was either placed over Layer 2 by human agency or accumulated through natural process or both. As it is indistinguishable on simple inspection from comparable topsoils in the vicinity, it is unlikely to have had a very different history from those soils. It appears, therefore, that the sequence of events may have been: (1) the topsoil was stripped; (2) the terrace tread was modified (cut and fill); (3) the original topsoil was spread over the newly created surface. If this reconstruction is correct, it may indicate that cultivation was the intended use.

The limited nature of the excavation precluded a clear answer to the question of whether the terrace had been used for habitation or cultivation. The balance of probabilities, however, favours cultivation. Best's conclusion, cited earlier, is thus supported, although on different grounds.

The presence of stone material in Layer 1 remains unexplained. It has no obvious function associated with cultivation. It was, moreover, only a very minor part of the layer by volume.

No material suitable for radiocarbon dating was found.

Clearly, more extensive excavation, and longer cross sections especially, are desirable. Soil conditions at the end of summer are not optimal for archaeological work as the dry soil can mask the presence of features. Conditions would probably be better in late spring.

CONCLUSIONS

There is strong evidence that part of the terrace, at least, has been modified. The terrace was not, however, artificially constructed. The terraces may have been used for cultivation, but further work is required to establish this.

The results from the two excavations at R26/111 and R27/136 support the view that terraces in the Wellington-Porirua area are rarely artificially constructed,

but that there has been opportunistic use of naturally formed terraces. Terraces which have been modified may have no outward signs of modification or occupation to distinguish them from surrounding, unmodified and unoccupied, terraces.

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