

# An archaeological survey of Whitireia Park, Porirua

DOC SCIENCE INTERNAL SERIES 62

A. Walton

Published by  
Department of Conservation  
P.O. Box 10-420  
Wellington, New Zealand

*DOC Science Internal Series* is a published record of scientific research carried out, or advice given, by Department of Conservation staff, or external contractors funded by DOC. It comprises progress reports and short communications that are generally peer-reviewed within DOC, but not always externally refereed. Fully refereed contract reports funded from the Conservation Services Levy (CSL) are also included.

Individual contributions to the series are first released on the departmental intranet in pdf form. Hardcopy is printed, bound, and distributed at regular intervals. Titles are listed in the DOC Science Publishing catalogue on the departmental website <http://www.doc.govt.nz> and electronic copies of CSL papers can be downloaded from <http://csl.doc.govt.nz>

© Copyright October 2002, New Zealand Department of Conservation

ISSN 1175-6519

ISBN 0-478-22316-1

This report originated from work carried out under Department of Conservation investigation no. 1164. It was prepared for publication by DOC Science Publishing, Science & Research Unit; editing and layout by Ian Mackenzie. Publication was approved by the Manager, Science & Research Unit, Science Technology and Information Services, Department of Conservation, Wellington.

# CONTENTS

Abstract	5
<hr/>	
1. Introduction	6
<hr/>	
1.1 Project aims	6
1.2 Project area	6
1.3 Previous archaeological work	8
2. Results	9
<hr/>	
2.1 Summary information on recorded sites	9
Onepoto Bay: R27/6 (midden), R27/48 (terraces)	9
R27/49 (terraces), R27/50 (terraces)	9
Te Neke Point and Kaiaua Bay: R27/9 (terraces/midden), R27/233 (pits), R27/51 (terraces), R27/52 (pits), R26/107 (terraces/pits/midden)	9
Northern end of Kaiaua Bay: R26/119 (middens), R26/179 (terraces/midden), R26/106 (middens)	11
R26/113 (middens)	11
R26/170 (terraces)	12
R26/240 (middens/ovens)	12
R26/110 (terraces)	12
R26/171 (terraces); R26/109 (pit)	12
R26/111 (terraces/midden)	13
R26/114 (midden), R26/307 (midden)	13
R26/118 (pa)	14
R26/117 (pits)	14
R26/116 (pits)	14
R26/288 (trench)	14
R26/172 (terraces), R26/173 (terraces), R26/174 (terraces), R26/175 (terraces), R26/176 (terraces)	14
R26/115 (terraces)	14
R26/177 (terraces), R26/178 (terraces)	15
3. Discussion	15
<hr/>	
4. Conclusions	16
<hr/>	
5. References	17
<hr/>	

# An archaeological survey of Whitireia Park, Porirua

A. Walton

Science & Research Unit, Department of Conservation, Wellington

## ABSTRACT

Whitireia Peninsula forms the western side of the entrance to Porirua Harbour, North Island, New Zealand. An archaeological survey of the recreational reserve there was undertaken in September 2001, following minor damage to a site by fencing. Sites reported from four previous surveys were re-located in the field and updated information recorded. To date, 33 sites have been recorded and most represent Maori occupation dating up to about the 1840s. There is one small pa. Terraces and middens are the most numerous features recorded, with terraces present at 58% of sites and midden present at 33%.

Keywords: archaeological survey, middens, terraces, Whitireia Peninsula.

© October 2002, New Zealand Department of Conservation. This paper may be cited as:  
Walton, A. 2002. An archaeological survey of Whitireia Park, Porirua. *DOC Science Internal Series*  
62. Department of Conservation, Wellington. 17 p.

# 1. Introduction

## 1.1 PROJECT AIMS

An archaeological survey of Whitireia Park was undertaken as a series of 2–4 hour visits spread over a total of 7 days during the period between 9 September and 23 September 2001. The work was undertaken following the discovery of inadvertent minor damage to a site (recorded in the New Zealand Archaeological Association Site Recording Scheme as R27/9) by fencing. The reserve is managed by the Department of Conservation.

The damage to R27/9 was inspected on 5 August 2001, but at the same time other damage was noted, both there, and on neighbouring sites, from cattle trampling. The aim of the survey was to check the locations of recorded sites and to update information on their condition. The author carried out the work as part of Science & Research Unit Investigation 1164 (Science Advice) and was accompanied in the field on 11 September by R. Nester from the Wellington Conservancy. The main outputs are New Zealand Archaeological Association site records (New Zealand Archaeological Association 1999) and this report containing a synthesis of the archaeological information accumulated over the years.

Thirty recorded sites were re-located in the field and updated information collected. One recorded site (R26/109) was not found and is assumed to have been destroyed soon after it was first recorded in 1959. Two sites were recorded for the first time. GPS readings were taken on many sites using a Garmin GPS 38, with a standard error of 15 m. The limitations of this instrument and poor satellite configurations prevented readings at 27% of the sites. Areas where no sites were known were also checked, with particular attention to the bays and ridgelines near the coast.

## 1.2 PROJECT AREA

Whitireia Peninsula forms the western side of the entrance to Porirua Harbour (Fig. 1). The peninsula is hilly, with broad ridges and steep slopes, and has cliffs on both its seaward side and harbour side. There are a few small areas of coastal flats, including old earthquake-stranded beach ridges, behind the bays between Te Neke and Kaitawa. A large part of Whitireia Park Recreational Reserve (Gaz. 1980: 2344) is in pasture or regenerating bush. Houses now cover much of the remainder of the peninsula.

The greywacke rocks of the peninsula are covered with loess (windborne silt) and the soils are derived from loess and drift derived from the greywacke.

There was a Ngati Toa settlement at Kaitawa in the early 1840s (Wakefield 1845 I: 220) but this is the last documented Maori settlement on the peninsula. Early maps dating to the 1840s and held by Land Information New Zealand (Roll Plans 383, 543) show the Whitireia Peninsula but record no Maori settlement there.

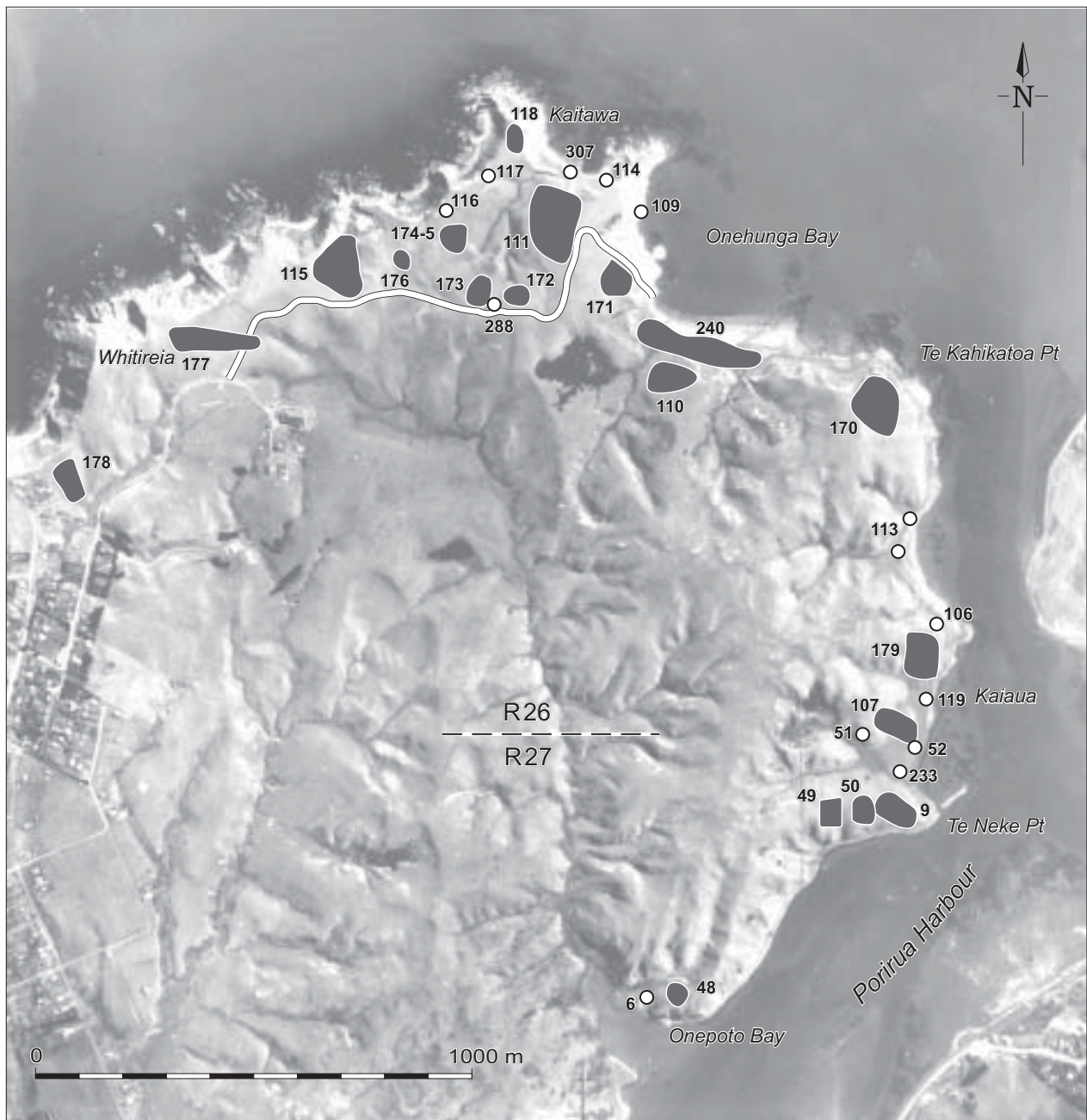


Figure 1. Whitireia Park showing the location of recorded sites. Numbers are New Zealand Archaeological Association site numbers. Numbers are in two series corresponding to map sheets R26 and R27. The position of the line between these sheets is shown. Aerial photograph used as a base is RN 322/8 (Crown copyright) taken on 17 March 1942.

From the 1850s to the 1970s, the land at the northern end of the peninsula has been used primarily for grazing stock. The first entry in the Deeds Index (Vol. 4 Folio 667) is the Crown Grant to the Bishop of New Zealand that was made on 28 December 1850. In 1906 the Land was transferred from the Anglican Church to the Porirua College Trust Board (Deeds Index Vol. 4 Folio 667). The greater part of the land remained with the Board (Certificates of Title 340/34, 447/193) until 1977 when it was transferred to the Crown as a reserve for recreational purposes. In contrast to the surrounding areas, where surviving archaeological sites are now few and far between, the coastal strip of Whitireia Park represents an area with a high density of such sites, generally in moderate to good condition.

### 1.3 PREVIOUS ARCHAEOLOGICAL WORK

In 1914 Best described the archaeological remains of the peninsula as part of a wider survey of the Porirua area. It is not clear when he visited the areas concerned, but possibly after he took up employment at the Dominion Museum in 1910. In 1959 the Dominion Museum study group (later incorporated in Wellington Archaeological Society) began recording sites there. The results were summarised in papers by Davis (1959) and Daniels (1961). McFadgen recorded fourteen terrace sites in 1976 and supplied information for a management plan (Department of Lands and Survey 1978). In 1984 the author made a number of field trips to the area for the New Zealand Historic Places Trust. These visits resulted in an unpublished site survey report (Walton 1984) and a paper on 'Terraces and gravel-added soils of Whitireia Peninsula, Porirua' (Walton 1986).

Sites are concentrated in 'the coastal margin' (Department of Lands and Survey 1978). They are all-but absent in 'the central valley', a large valley that extends most of the way across the peninsula to Onepoto Bay.

The outstanding archaeological site of the area is usually considered to be the terraces recorded as R26/115. These were first described by Best in 1914, were later the subject of a brief argument about their origins amongst geologists in the late 1920s (Ongley 1931), were discussed by Daniels in 1961, and by Macnab in 1969. Terraces are the most frequently recorded feature with 16 sites having them as the sole component. The purpose of the terraces remains in doubt and there is some evidence suggesting that many may not be artificially constructed features.

Middens are a feature of the area and occur particularly in the small bays at the harbour entrance. Middens are the most common feature after terraces: they are the sole component of, or a feature of, ten sites. In 1844 Angas (1847 I: 246) visited the Porirua area and noted that 'on emerging from the forest, we came upon the shores of the harbour, low sandy flats stretch out for some distance, and the hills around are covered with fern and belts of forest descending to the shore. Many native houses are scattered along the margin of the harbour; and as the tide was out, the women were busily employed in gathering pipis, a species of cockle, from the uncovered flats.' Cockle (*Austrovenus stutchburyi*) is the main constituent of middens on the Whitireia Peninsula. A range of other species, from both soft and rocky shore habitats, is usually also present. This includes *Amphidesma australis*, *Amphibola crenata*, *Haliotis* spp., and *Lunella smaragda*. Fish and bird bone is rare, but has been noted.

The management plan (Department of Lands and Survey 1978: 11) identifies four sites of significance to Maori. These are the headland east of Onepoto Bay, Te Neke, Te Kahikatoa, and Kaitawa. Although not precisely defined, these are all places with one or more recorded sites.

Just outside the park, but in public ownership, is Te Pa-o-Kapo (R26/112). The pa is briefly described by Best (1975: 343) and was visited in both 1984 and 2001.

## 2. Results

As a result of the 2001 survey, there are now 33 records for Whitireia Park sites held in the New Zealand Archaeological Association Site Recording Scheme (Fig. 1; Table 1). The sites are discussed in this section moving counter clockwise around the coast from Onepoto Bay (or Inlet) towards Whitireia (Mount Cooper) and beyond. Square brackets in the text are my interpolations.

### 2.1 SUMMARY INFORMATION ON RECORDED SITES

#### **Onepoto Bay: R27/6 (midden), R27/48 (terraces)**

‘On the northern point of Onepoto inlet the Maori has had a small settlement as proved by certain scarpings for hut sites, some stone anvils, such as were used for pounding fern root on, shell wastage, and a shell mound or midden at the base of the spur, western side’ (Best 1914; see also Best 1918: 215).

The shell midden is recorded as R27/6. The 1959 survey apparently located the midden although it was somewhat misplaced on the plan drawn at the time. It forms a low grassy mound and is crossed by the shoreline track.

The spur-end settlement site noted by Best has not been recorded because of the ambiguity of the features there. It is not clear exactly what features were reported by Best as ‘hut sites.’ Presumably he was referring to well-defined levelled areas, roughly rectangular, and measuring only a few metres by a few metres. Whatever it was that he was recording as hut sites, they have not been identified in subsequent surveys. In 1984 two circular hollows were evident on top of the spur but neither could be positively identified as archaeological features. The more-clearly defined of the two was one metre wide and about forty centimetres deep. These features were not re-located in 2001 and were possibly hidden by the encroaching gorse and scrub.

A little further up the ridge there are terraces, recorded in 1976, on either side of the ridge (facing northwest and southeast), but no other evidence of occupation associated with these has been found.

#### **R27/49 (terraces), R27/50 (terraces)**

These two sets of terraces were recorded in 1976 on the ridge leading down to Te Neke Point.

#### **Te Neke Point and Kaihua Bay: R27/9 (terraces/midden), R27/233 (pits), R27/51 (terraces), R27/52 (pits), R26/107 (terraces/pits/midden)**

‘On the next point, known as Te Neke, is the site of an old time village ... It is marked by the levelled hut sites on the spur, and the ubiquitous midden [R27/9]... On the little flat just north of Te Neke are also tokens of former occupation [R27/52], while on the spur north of it are hut sites, store pits and middens [R26/107]. All these spurs, slopes, bluffs and flats are wanting in any



TABLE 1. RECORDED ARCHAEOLOGICAL SITES IN ORDER OF METRIC SITE NUMBER. Bold grid references indicate that one (or more) GPS reading was also taken. The NZMS1 site numbers used in older publications are listed in column 4.

SITE NO.	GRID REFERENCE	SITE TYPE	NZMS1 SITE NO.
R26/106	664103	Midden	N160/17
R26/107	<b>663100</b>	Terraces/pits/midden	N160/129
R26/109	<b>656111</b>	Pit	N160/21
R26/110	657108	Terraces	N160/22
R26/111	656110	Terraces/midden	N160/23
R26/113	<b>663104</b>	Midden	N160/26
R26/114	<b>655112</b>	Midden	N160/27
R26/115	<b>649109</b>	Terraces	N160/28
R26/116	<b>652111</b>	Pit	N160/29
R26/117	<b>653112</b>	Pits	N160/30
R26/118	<b>653113</b>	Pa	N160/31
R26/119	<b>664101</b>	Midden	N160/32
R26/170	662107	Terraces	N160/130
R26/171	656110	Terraces	N160/131
R26/172	<b>654109</b>	Terraces	N160/132
R26/173	<b>652109</b>	Terraces	N160/133
R26/174	<b>652110</b>	Terraces	N160/134
R26/175	<b>652110</b>	Terraces	N160/135
R26/176	<b>651109</b>	Terraces	N160/136
R26/177	646108	Terraces	N160/137
R26/178	644104	Terraces	N160/138
R26/179	<b>662102</b>	Terraces/midden	N160/139
R26/240	<b>658108</b>	Midden/ovens	
R26/288	<b>653109</b>	Trench (WW2)	
R26/307	<b>654112</b>	Midden	
R27/6	<b>658093</b>	Midden	N160/14
R27/9	<b>663098</b>	Terraces/midden	N160/18
R27/48	<b>659093</b>	Terraces	N160/125
R27/49	<b>661098</b>	Terraces	N160/126
R27/50	663097	Terraces	N160/127
R27/51	663098	Terraces	N160/128
R27/52	<b>663099</b>	Pits	N160/19
R27/233	<b>663099</b>	Pits	

form of defensive earthworks, and most of the old places of residence are situated above the beach on sloping spurs and hillsides offering no advantage as defensible places' (Best 1914).

Daniels (1961) reports that R27/9 and R26/107 'each have four terraces cut across the full width of the spur, with scarps about three or four feet high, and in the case of site [R27/9] there are a number of smaller discontinuous terraces, some crescentic in shape. In neither case does the length of terraced spur exceed 200 feet, and the longest terrace measures just over 100 feet. Both these sites bear traces of midden refuse, and Site [R26/107] has, on separate terraces, two rather indistinct raised-rim pits, the interior measurements of which are 16 feet 6 inches × 7 feet 6 inches. Site [R27/9] also shows traces of depressions [that] may have been pits. There is no sign of any attempt to defend these sites, although they are situated on narrow spur-ends.'

In 1984 two patches of finely broken shell showed through the grass on R27/9 and in 2001 stock trampling showed these deposits to be quite extensive. Midden at R26/107 was recorded by Best and later by Daniels, but was hidden from view in 1984. Stock trampling had again exposed midden beneath the turf in 2001. The two pits on R26/107 were readily identifiable in both 1984 and 2001.

Best also reported 'tokens of former occupation' on the flats just north of Te Neke, but did not specify exactly what this means. Daniels (1961) reports

'six pits arranged in a line parallel to the beach, between five and twenty feet apart ... These pits are very indistinct, but they definitely appear to have been circular. Their average diameter would be about ten feet.'

The pits are recorded as R27/52 and were still visible in 1984 and 2001 but, as noted by Daniels, they are not very distinct. Their function is unknown. They occupy the top of an old beach ridge. Two further pits (R27/233) were recorded on the coastal flats in 2001 but their origin and function is uncertain and they may be quite recent features. Artefacts have been found seawards of the raised beach ridge indicating some form of occupation in this vicinity in the late 19<sup>th</sup> century period.

Terraces (R27/51) have been recorded on the south side of the ridge. Although the scarps are prominent when seen from a distance, they are much less convincing as artificial features when examined close up.

### **Northern end of Kaihua Bay: R26/119 (middens), R26/179 (terraces/midden), R26/106 (middens)**

'Beyond this spur [i.e. the spur on which R26/107 is located] is another little flat, known ... as Kaiana [Kaihua] ... this flat has also been occupied ... most of these little flats are used as kumara gardens and hut sites in past times' (Best 1914).

Best's identification of the flats as places where kumara was grown and huts located is likely to be supposition. There is, however, evidence of occupation on the headland at the northern end of the flat where there are both terraces and midden.

'On the next spur, opposite the narrowest part of the bay at Paremata proper, and the old stone barracks and ... (Thoms) whaling station, are hut sites and middens [R26/179], while on the next small semi-detached spur the same evidences are seen' (Best 1914).

In 1959 a midden were also located at the northern end of the flats below R26/179. The midden was recorded as R26/119. There is evidence of further midden 50-80 m along the vehicle track to the north.

R26/106, originally recorded in 1959, has not been re-located subsequently. The position shown on the 1959 plan puts it north of the headland but the Site Record Form itself indicates it is within about 100 yards of R26/119 so it may be one of the damaged deposits noted to the north along the vehicle track.

### **R26/113 (middens)**

'On a small flat here we again note signs of former occupation ... Inward from the little flat ... we encounter a few middens ere reaching the point east of Onehunga, the name of which point is Te Kahikatea, but on the bluffs and

spurs above the beach no clear, definite traces of occupation are noted ... we noted what might have been hut sites; the question might be decided by a little spadework' (Best 1914).

In 1959 a midden was recorded at the northern end of the bay. The deposit recorded by Davis in August 1959 was either one of three in the area located in 2001 between the two streams at north end of this bay, or another in the near vicinity.

### **R26/170 (terraces)**

Terraces were recorded on the north-facing slopes above the cliffs in 1976. These may be the features seen by Best as noted above. In 2001 a circuit created by trail bike riders was noted crossing the terraces and this has caused considerable localised disturbance to the surface.

### **R26/240 (middens/ovens)**

'Moving forward into the little bay at Onehunga, we observe that a considerable area of the flat is practically one big midden, showing that there must have been much and continued occupation there ... These middens are a promising field for the relic hunter, showing much shell refuse numerous old steam ovens, cooking and other stones, as also bones, including the decaying bones of whales, probably ... of the later thirties and early forties ... At the first creek, the winds that blow have exposed an old midden at the base of the spur, and hut sites are seen on the lower part of the spur between the two gullies close by ... Onehunga was the residence of Whanake, the principal chief of the Porirua and Wellington districts early in last century' (Best 1914, see also Best 1918).

The middens and ovens are recorded as R26/240. By 1984 only a few traces were evident at the ground surface. Shell and stone, both cooking and industrial, was evident in one spot but elsewhere there was only a few very scattered items. This remained the situation in 2001 when only odd shells and imported stones were in evidence. Onehunga Bay has been identified as having special historical associations with Ngati Toa (Department of Lands and Survey 1978: 7).

### **R26/110 (terraces)**

'On the western side of the wide-faced spur opposite the central part of the Onehunga flat are some well defined terracings that may be the sites of huts ... though it is suggested that they may have been formed for cultivation purposes' (Best 1914).

Daniels (1961) noted that a 'series of terraces occurs on a steep face above Onehunga Beach. These are also discontinuous and very irregular, so much so that in some cases they are indistinguishable from natural slump terraces. They also show gravel on the surface, and their narrow width (never more than seven feet) does not make them appear at all suitable for habitation. Here again no pits or midden refuse are evident.'

### **R26/171 (terraces); R26/109 (pit)**

'On the western side of Onehunga Bay we see more traces of human occupation at the base of the bluffs, as also on the slopes above those bluffs,

such slopes being spurs running down from the range above ... Above these bluffs are visible hut sites, also some large water-worn stones, such as are used for pounding fern roots on ... we note also water-worn gravel in the soil, a pretty sure sign that kumara have been cultivated on these slopes' (Best 1914). The site above the bluffs referred to by Best would appear to be north of the stockyards and is recorded as R26/171. This is also where the road comes down into Onehunga Bay. None of the features noted by Best have subsequently been identified in the field, but can be seen on older aerial photographs. A large pit (R26/109) was recorded at the foot of the cliffs near the western end of the bay in 1959. Work associated with the road that runs around the foot of the cliffs has presumably obliterated this feature. The 1942 aerial photograph shows the likely location and a GPS reading was taken at that spot.

### **R26/111 (terraces/midden)**

'At the western point of Onehunga Bay, on the top of the bluff, is a fine piece of level ground whose grassy surface shows no signs of occupation, though it must have been utilised in former days ... Just west of this point both sides of the first little gully are carved into plainly marked artificial terraces, each a few yards in width. Here the presence of waterworn gravel in the soil and a rua kai, or storage pit for food products, hard by, tend to uphold our theory that these terracing were made for cultivation purposes' (Best 1914).

The terraces noted by Best were not recorded in 1959, but have since been assigned the number R26/111 (N160/23). The site originally recorded as N160/23 in 1959 was a small terrace site nearby that has since been destroyed by road-making. Walton (1992) reported a small-scale excavation at R26/111 and suggested that the terraces were natural but had been re-shaped by human action. After considerably scarring of the land by off-road vehicles, ditches and banks were formed next to roads in 2000 with the intention of restricting the use of vehicles to the roads and car-parks. Soil profiles were exposed in the sides of the ditches for 100-200 m, but no archaeological features were detected. The sections in the ditches have provided a better standard against which to compare the observations made during the excavation. The unmodified soil profiles are far more varied than was allowed and this necessitates some re-thinking of the level of human intervention. Small percentages of spherical smooth phytoliths found in two soil samples were consistent with kumara, but other origins cannot be ruled out (Carter n.d).

A small midden was identified on one side of the terraces in September 2002.

The 'fine piece of level ground' noted by Best has a single depression on it, but this may not be an archaeological feature, as it had not been noted prior to the 1984 survey. It is not recorded as an archaeological site. A pou was erected there c. 2000.

### **R26/114 (midden), R26/307 (midden)**

A midden at the foot of the cliffs was recorded in 1959. Remnants were located between the roadway and the foot of the cliffs in 1984 and 2001 but a large part of the site is likely to have been damaged when the road was put in. A small midden forming a low mound was identified in the middle of the bay in 2001 and was recorded as R26/307.

### **R26/118 (pa)**

‘The next spur and point constitute the South Head of the entrance to the harbour. This is Kai-tawa, whereat the Ngati-Toa folk had a small hamlet that was occupied as the forties of last century. Wakefield mentions it in his *Adventure in New Zealand* under the name of Waitawa. The signs of this late occupation are plainly seen in the form of Waitawa. The signs of this late occupation are plainly seen in the form of hut sites and store pit ... Some of the woodwork of one hut is still extant, apparently slabs of totara, a durable timber’ (Best 1914). Wakefield (1845 I: 220) gives the name as Waikawa not Waitawa.

This site was recorded in 1959 and is still clearly identifiable. Identification of the site as a pa is based on five spaced holes in a row across the neck of the headland. They are still (2001) quite distinct but have not been investigated and identified as to function.

### **R26/117 (pits)**

Daniels (1961) describes R26/117 as two raised-rim pits measuring 16 feet × 9 feet and 9 feet × 9 feet. They had been almost completely filled in by weathering.

This site, although indistinct, was relocated in 1984 and it was still readily identifiable in 2001.

### **R26/116 (pits)**

Daniels (1961) describes R26/116 as a rather strange feature ‘resembling a small mound surrounded by a miniature ditch and bank.’

This site, although indistinct, was relocated in both 1984 and 2001. Its function is undetermined.

### **R26/288 (trench)**

A military trench was dug high on the hills overlooking the harbour entrance in 1941–42. This is recorded as R26/288.

### **R26/172 (terraces), R26/173 (terraces), R26/174 (terraces), R26/175 (terraces), R26/176 (terraces)**

These five sets of terraces on north-facing slopes were recorded in 1976 by McFadgen. The individual terraces vary in size and shape and on the whole are relatively unremarkable examples.

### **R26/115 (terraces)**

‘Continuing up the spur to Mount Cooper, there appear to be some artificial terraces on the seaward slope. Proceeding up the spur, we note that the head of a small seaward gully widens out and develops into a wide even slope of triangular form, the apex of such triangle downwards, the base represented by the ridge above. This slope shows the most remarkable series of artificial terraces ... This slope has a width of about 100 yards at its upper part, and has a northern exposure. Practically the whole of this face has been carved by human hands into terraces that vary from forty yards or so up to one hundred

paces in length, the longer ones being the uppermost of the series. Of the longer terraces there are about nine, but at certain places two terraces run together and continue as one, or one bifurcates. They vary in width from a few feet to six or seven yards ... we come to the conclusion that these terraces were formed as kumara gardens on the sunny slope, and doubtless each terrace would have on its outer margin a windbreak of manuka or other material, to shelter winds so prevalent here' (Best 1914).

R26/115 is the most impressive of the terraces and was the focus of Macnab's (1969) paper on terraces and kumara growing in the Wellington area.

'On the summit of Whitireia (Mount Cooper) are two places that look like hut sites, but must be viewed as doubtful' (Best 1914).

Two badly defined depressions are still visible on Whitireia summit and these may or may not be the features referred to by Best. The evidence is too ambiguous for any conclusions to be reached about their origin.

### **R26/177 (terraces), R26/178 (terraces)**

R26/177 occupies a broad, gently-sloping, northeast-facing, hilltop location. A series of holes for bollards were dug across part of the site in 2000 with the aim of restricting vehicle movement to the roads. This work was monitored by the author. No evidence of occupation or cultivation was seen. R26/178 occupies a steep slope. The terraces are well defined but the site is on a southeast-facing slope.

## **3. Discussion**

Few areas of the country have been subject to such repeated survey over such a long period of time. The 2001 survey was done 87 years after Best reported his observations, and 42 years after the fieldwork reported by Davis and Daniels. There were further surveys in the 1970s and 1980s. The archaeology of the area remains relatively little known, however, as little excavation has occurred on these, or on similar sites in the region, to test issues relating to form, function, and antiquity.

The lack of detailed information is a particular problem with the terraces. Best recorded terraces in various places on the peninsula as house sites or kumara-growing areas. Later recorders were more hesitant about both the identification of the features as artificial, and about their purpose. A number of sets of terraces were recorded or re-recorded in 1976 by McFadgen. These included R27/48, R27/49, R27/50, R27/51, R26/110, R26/111, R26/115, and R26/170–R26/178. Most of these terraces are formed in the thicker deposits of loess that occur in steeply sloping valleys or valley-side slopes. At that time, the possibility that potato was being grown there in the early 19<sup>th</sup> century was being seriously entertained. The management plan (Department of Lands and Survey 1978: 12) suggests that 'the northern faces of the coastal fringe show considerable and valued evidence' of cultivation of the potato.

The origin and function of the terraces has been discussed elsewhere (Walton 1986). Given their presumed horticultural function, aspect should be important. The largest group does face north or northwest (R26/110, 111, 115, 170, 171, 172, 173, 174, 175, 176) or northeast (R26/177). A smaller group, however, faces south (R27/49, 50, 51) or southeast (R26/178). R27/48 is on both sides of a ridge and the terraces face either north or south.

Few sites have been completely obliterated but most have suffered damage in one way or another. The site in Onehunga Bay described by Best has presumably been damaged by the car-park and other facilities but little is known of its original extent, how much has been damaged, and how much lies buried. Vehicle tracks formed along the coastal platform have also been destructive of middens. A number, such as R26/114 and R26/113 and R26/119, are exposed in sections next to the track. Terraces have generally stood up well under grazing by sheep but heavy trampling by cattle is slowly breaking down features and is exposing the surface of middens on sites such as R27/9 and R26/179. As the recent damage to R27/9 from fencing and the cattle damage indicate, continuing care is required to avoid damaging management actions. The sites in Whitireia Park form a small but important group of sites in a region where archaeological sites have been, and are, under intense pressure from development.

## 4. Conclusions

Thirty-three sites have been recorded in Whitireia Park. Most represent Maori occupation dating up to about the 1840s. There is one small pa but terraces and middens are the most numerous features recorded, with terraces present at 58% of sites and midden present at 33%. There are few pits, no more than 14, and some are ill-defined and may not be storage pits. The chronology is unclear. Maori occupation largely ended in the 1840s and many of the sites are likely to be late prehistoric or early 19<sup>th</sup> century in age. Sampling two or three of the middens for dating purposes and for faunal analysis should be considered.

The terraces, and the use to which they were put, remains a key research objective. There are four possibilities:

- The terraces are natural
- The terraces are natural, but have been occupied or cultivated
- The terraces are natural, but have been re-shaped for occupation or cultivation
- The terraces are man-made (Walton 1986).

Interpretation is still largely based on inspections of the surface features and only limited excavation has been done. There is a limit to what can be learned from surface features, eroding sections, and small-scale excavations. Phytolith analysis may assist in the future in documenting the use of particular areas for growing kumara or potato.

## 5. References

- Angas, G.F. 1847: Savage life and scenes in Australia and New Zealand. Smith, Elder, and Co., London.
- Best, E. 1914: Porirua and they who settled it. *Canterbury Times* 4 March 1914 et seq.
- Best, E. 1918: Shell-middens of the Porirua District. *New Zealand Journal of Science and Technology* 1: 212-217.
- Best, E. 1975: The Pa Maori. Government Printer, Wellington. (Originally published in 1927).
- Carter, J.A. n.d. Report on the phytoliths extracted from the Whitireia Peninsula soils. Unpublished report. Copy filed with R26/111.
- Daniels, J.R.S. 1961: Whitireia Peninsula, Porirua. *New Zealand Archaeological Association Newsletter* 4 (4): 25-29.
- Davis, S. 1959: A summary of field archaeology from the Dominion Museum Group. *New Zealand Archaeological Association Newsletter* 2 (4): 15-19.
- Department of Lands and Survey 1978: Whitireia Park management plan. Department of Lands and Survey, Wellington.
- Macnab, J.W. 1969: Sweet potatoes and Maori terraces in the Wellington area. *Journal of the Polynesian Society* 78: 83-111.
- New Zealand Archaeological Association 1999: Archaeological site recording in New Zealand. *New Zealand Archaeological Association Monograph* 23.
- Ongley, M. 1931: Maori terraces. *New Zealand Journal of Science and Technology* 12: 282-283.
- Wakefield, E.J. 1845: Adventure in New Zealand. John Murray, London.
- Walton, A. 1984: An archaeological survey of Whitireia peninsula, Porirua. Unpublished report to New Zealand Historic Places Trust, Wellington.
- Walton, A. 1986: Terraces and gravel-added soils of Whitireia Peninsula, Porirua. *New Zealand Archaeological Association Newsletter* 29 (2): 78-85.
- Walton, A. 1992: Investigation of a terrace at R26/111, Whitireia Peninsula, Porirua. *Archaeology in New Zealand* 35 (1): 45-51.