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## ARCHAEOLOGY IN NEW ZEALAND



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# ANATERE PA, ATHENREE, BAY OF PLENTY

Caroline Phillips  
Auckland

Harry Allen  
Anthropology Department  
The University of Auckland

## INTRODUCTION

Anatere Pa (U13/46, N53/79) is on the Athenree headland, overlooking the Waiau River estuary at the western end of the Tauranga Harbour (Phillips and Allen 1996). It is the largest (at 8500 m<sup>2</sup>) of a series of six pa, spaced no more than 160 m apart around the headland (Fig. 1). The soils are a soft friable sandy loam, derived from volcanic ash, which together with the nearby Kaimai Ranges, river, swamps, harbour and ocean beach made this a very favourable location for Maori settlement.

It was also a highly contested area. Ngamarama the descendants of Toi (Te Tini o Toi), are said to be among the earliest people in the district (Stokes 1980). In the fifteenth century war broke out between Ngati Ranginui (who had settled in the Tauranga district) and Ngamarama. Around 1700 war broke out again in two directions. In the east, Ngaiteurangi (who had settled in the eastern Bay of Plenty) moved further west consolidating their conquest of the Tauranga Harbour, including the Athenree district. Meanwhile, Hauraki tribes expanded their territory to the southeast up the Ohinemuri River. On more than one occasion they attacked Koutunui (the pa adjacent to Anatere), Te Kura a Maia (at Bowentown heads), as well as Ongare and Te Kauri. By 1840, Te Whanau a Tauwhao, who claimed descent from both Ngaiteurangi and Te Tini o Toi, were the main hapu in control of the Athenree area and still continue to be so.

The western Bay of Plenty has been an area of interest for New Zealand archaeologists since 1960. Four pa (Kauri Point, Ongare Point, Ruahihi and Ureturituri), as well as one swamp and an undefended settlement (both at Kauri Point) have been excavated in some detail (Fig. 1). Also in 1979-80, New Zealand Historic Places Trust archaeologists conducted intensive studies in the Athenree district, recording 220 sites. A shell sample from Anatere pa provided a date of 490 BP, which Bruce McFadgen (1980) interpreted as relating to a second phase of defence, and it therefore made Anatere the earliest, most significant pa in the district.

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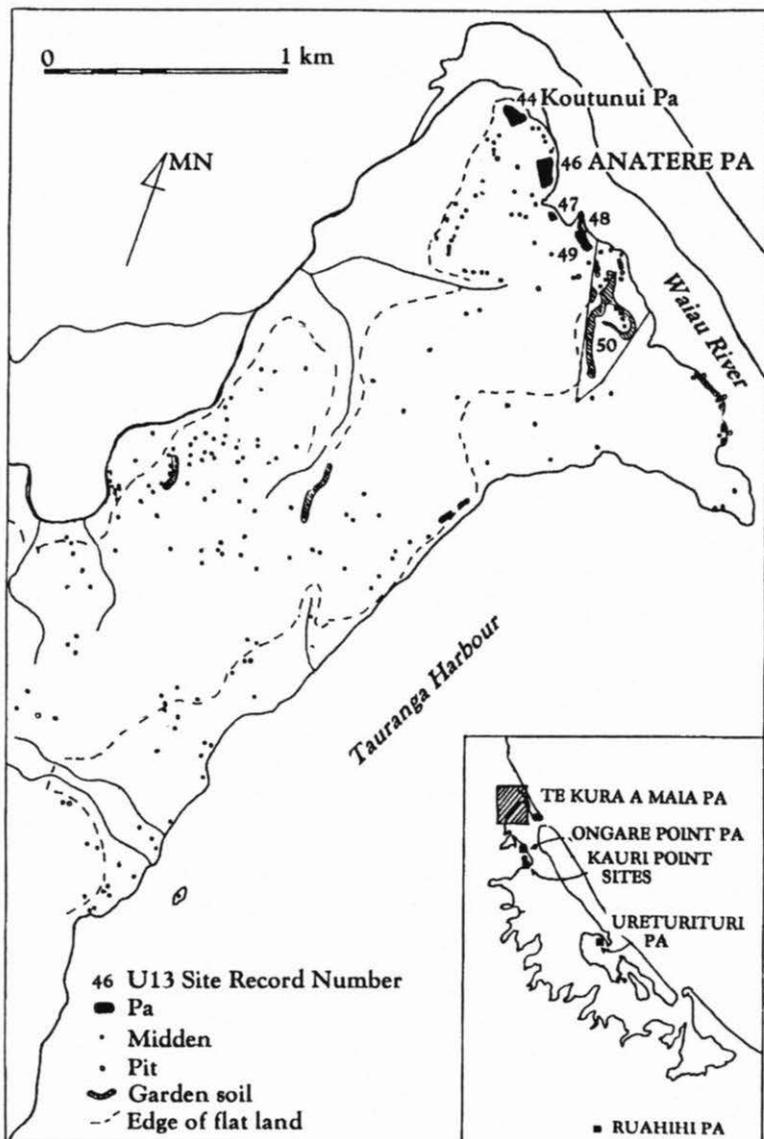


Figure 1. Location of Anaterere Pa, together with the recorded sites on the Athenree headland. Inset shows other western Bay of Plenty sites mentioned in the text.

The earliest aerial photograph (dated 1948) showed the defensive bank, with a slight depression inside it, and terracing. The highest point of the pa was just to the north of the present boundary fence, which bisects the site. In the southern half three terraces could be seen, but there were few other indications of features.

Planned development of the southern half of the site for housing resulted in a brief excavation by McGovern-Wilson and Hooker (1995) as part of the application to modify the site under the Historic Places Act, section 11 (permit 1994/93).

Outstanding questions regarding the relationship of McFadgen's date to the defence of the site, the nature of the defences, and the layout of the internal features led to an excavation by Phillips and Allen in February and May 1996, funded by the Historic Places Trust, with support from the University of Auckland and some volunteer labour.

The excavation methods are briefly outlined below (for details see the final report by Phillips and Allen 1996). This is followed by a discussion of the main questions addressed in this excavation, under the headings of: chronology, defences and internal layout. All the findings provided a history of occupation at the site. Finally some conclusions are made about the significance of Anaterē pa.

## EXCAVATION METHODS

The southern half of the site was contoured at 20 cm intervals by electronic alidade and plane table at a scale of 1:200. All the survey pegs and fence lines were mapped (these had changed since McFadgen's original base map was drawn).

Four specific areas were opened up with a mechanical excavator to remove the turf and topsoil (Fig. 2). Features observed were excavated by hand, plans and sections drawn, samples of midden taken, and artefacts recovered. Area 1 was located on the edge of the upper terrace, Area 2 on the large central terrace, and Area 3 was on the southern terrace. Area 4 was a trench, with two small extensions, excavated through the defences. Other trenches were excavated in order to provide a continuous cross-section through the site, as well as link the deposits dated by McFadgen on the southern terrace with both the defences and Area 3.

Some 376 m<sup>2</sup> was excavated by area techniques, although only 233 m<sup>2</sup> was dug in detail by hand, and 101 m<sup>2</sup> was trenched (of which some 12 m<sup>2</sup> overlapped the trench of McGovern-Wilson and Hooker). Together with the previous investigations (McFadgen 1980; Gumbley 1994; Hooker 1994; and

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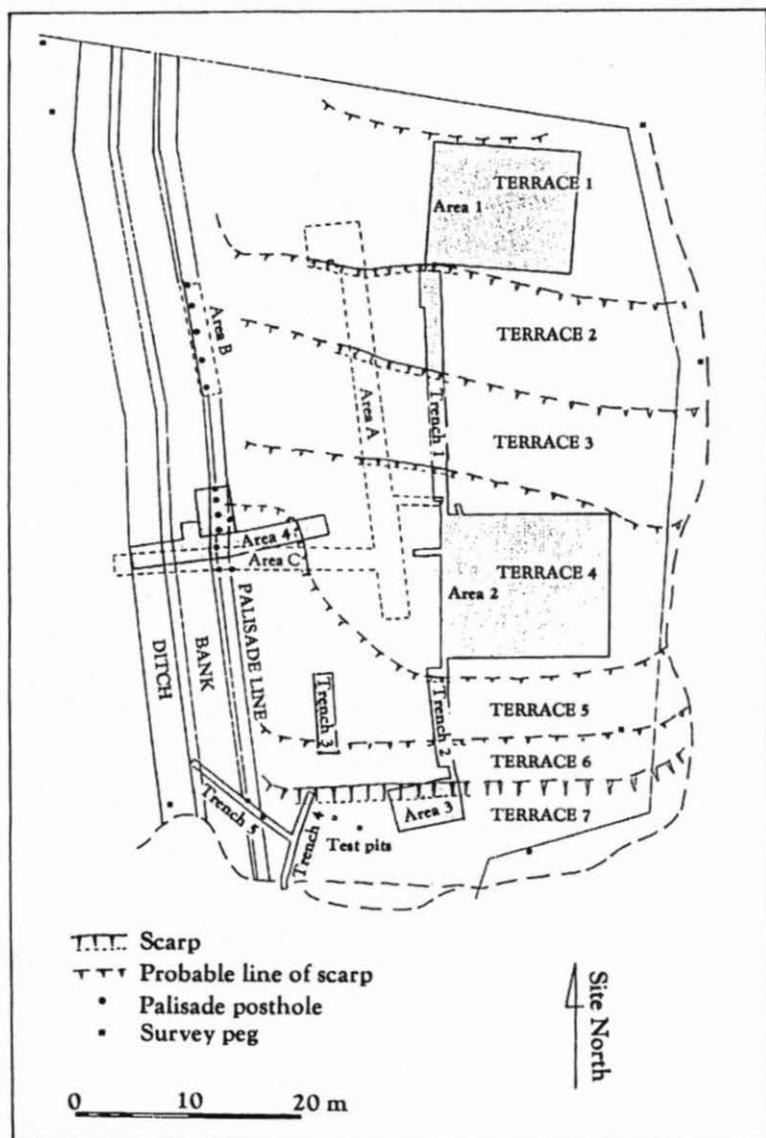


Figure 2. Plan of features and excavations on Anaterre Pa: shaded squares Phillips and Allen 1996, dashed lines McGovern-Wilson and Hooker 1995.

McGovern-Wilson and Hooker 1995), a total of 642 m<sup>2</sup> has been excavated on the southern half of the site (16.8% of the total area of 3750 m<sup>2</sup>), comprising some 493 m<sup>2</sup> by area techniques and 149 m<sup>2</sup> by trenching.

### CHRONOLOGY

Shell and obsidian were recovered for dating purposes. The shell was sent to Tom Higham at the Waikato laboratory for radiocarbon dating (Fig. 3), while the obsidian was submitted to Martin Jones at the Department of Anthropology, University of Auckland, for hydration dating.

In Area 4 and Trench 4 shell from the early undefended settlement gave a radiocarbon date of 447 ± 50 and 373 ± 50 (Wk 4660 & Wk 4662), while the pa occupation dated to 335 ± 50 and 306 ± 50 (Wk 4661 & Wk 4659).

Both previous excavations recovered shell for dating. McFadgen's date of 478 ± 49 BP<sup>1</sup> (NZ 5184) was obtained from the eroding scarp of Terrace 7, but it is likely that it originated from material used in the construction of the first terrace and therefore pre-dated the fortification phase. McGovern-Wilson and Hooker's dates of 299 ± 50 and 396 ± 50 BP (Wk 3751 & Wk 3755) were obtained from two palisade postholes. The shell may have fallen into the holes after removal of the posts and would presumably date deposits laid during, or possibly prior to, the occupation of the pa.

The obsidian hydration dates from Area 4 agreed very well with the radiocarbon dates. Thus the undefended settlement was dated to 500 ± 40<sup>2</sup>, while the pa construction yielded dates of 323 ± 40 and 348 ± 40. However, obsidian recovered from the fill of pits in Area 2 gave a date 200 years later than either the radiocarbon, or the other obsidian hydration dates. Chemical analysis of these samples will be undertaken to see if there are any reasons for this unexpected finding, the results of which will be the subject of a later article in *Archaeology New Zealand*.

In summary, the stratigraphy and the radiocarbon dates suggest that there was an undefended occupation dating to 430 BP, although the well-mixed

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<sup>1</sup> The McFadgen sample was reported as 490 ± 60, and the McGovern-Wilson and Hooker dates as 302 ± 50 and 406 ± 50. In this report all the dates have been recalibrated hence the slight variation.

<sup>2</sup> All obsidian dates have been given a range of ± 40 years until detailed chemical analysis and the hydration curve for a range of obsidian sources has been undertaken.

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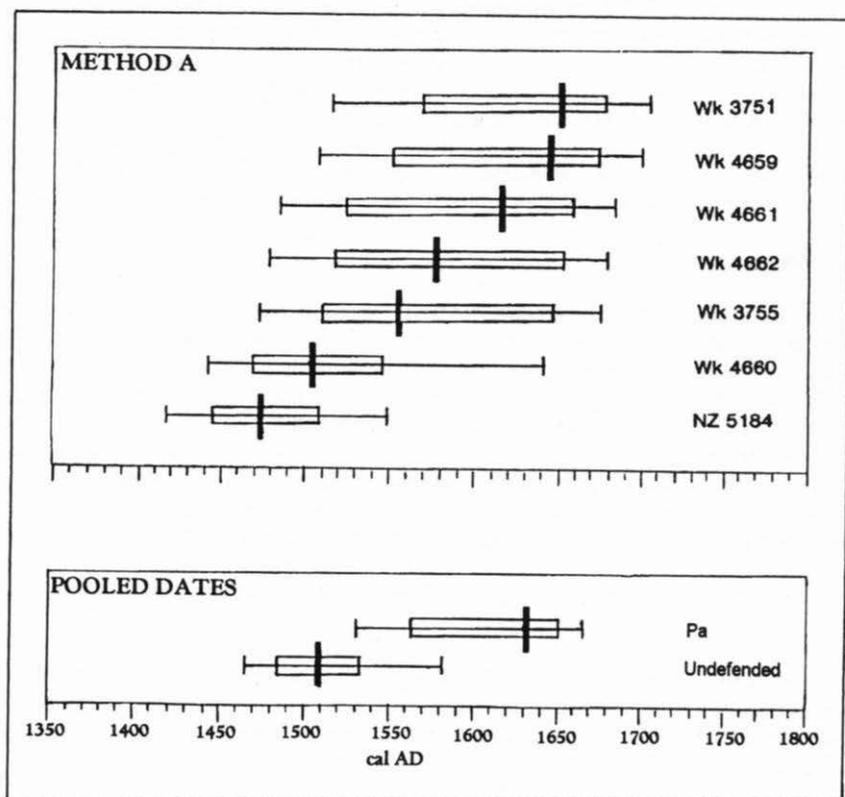


Figure 3. Radiocarbon dates from Anaterere Pa. Top graph shows all dates calibrated AD by intercepts, Method A; bottom shows the pooled dates.

garden soils could mean that the gardening and cooking activities took place as a series of short occupations (see pooled dates, Fig. 3). Subsequently, around 320 years ago the pa was constructed. The length of time which elapsed between the three or more episodes of occupation relating to the defensive phase is unknown, but the lack of refortification suggests that the intervening gaps may not have been very long.

### THE DEFENCES

The defences comprised a ditch, 2.8 m wide and 1.7 m deep, dug along the western margin and the spoil heaped up into a bank, 2.6 m wide and over 0.5 m high (Fig. 4). Immediately behind the bank was the first line of

palisade posts, 0.3-0.5 m in diameter, set 1.5-2.6 m apart and 0.9-1.5 m deep into the ground. There was a second line 1 m further east, with similar sized posts, placed to a depth of 0.5-1.1 m. All the sections through the defences and the earliest aerial photograph, showed a low strip surrounding the site between the base of the bank and the start of the internal terracing 2-2.5 m wide. It was in this position that the two palisade lines were constructed. The combined evidence suggests that there was no rebuilding of the palisades, although this cannot be definitely assumed.

## INTERNAL LAYOUT

Seven terraces were distinguished in the southern half of the pa, descending from the north towards the south (Fig. 5). They were constructed by the usual cut-and-fill technique, but the southernmost terrace was formed by using midden as a foundation with an overlying ash floor probably from the ditch, at what was a relatively lower part of the hill. The terraces were stepped down, often no more than 80 cm from each other. Their sizes ranged from 152-520 m<sup>2</sup>, with the larger terraces being interspersed by smaller ones. On the eastern side the terraces ran to the edge of the escarpment, which dropped steeply to the river, and on the west side they abutted the palisades. The exact alignment of the terraces could not be ascertained in all cases, but they appeared to follow the present contour (Fig. 2).

Three of the terraces (Terraces 1, 4 and 7) were excavated sufficiently to give some idea of the internal layout of the site, in which it was notable that there appeared to be areas given over for certain activities and that these changed over time.

Excavations carried out on Terrace 1 amounted to 158 m<sup>2</sup>, or 30% of the total area. The features suggest that this was principally devoted to structures and cooking. Midden overlay much of the terrace, filled some of the features and there was a large amount noted down the scarp to the northeast. There were three episodes of overlapping rectangular pits on the western side of Area 1. However, on the eastern side, in the four instances where the postholes overlapped pits they were later, and in the eight cases where postholes occurred with scoops they were earlier. The lack of other methods of stratigraphic control (due to ploughing) made it uncertain whether there had been a change in use of this part of the terrace from storage (pits), to structures (postholes), and subsequently to food preparation (scoops), although the available evidence does suggest this. The density of postholes in this part of the site is suggestive of housing, although none could be securely outlined.

The various excavations on Terrace 4 uncovered some 247 m<sup>2</sup>, or 47% of

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this terrace. The overall impression is that the principal activity was storage, especially in the detailed excavation on the western side of Area 2. The postholes did not appear to conform to housing, but possibly represented small fences. Of the 47 features fully excavated in the west, it seems that the storage pits related principally to the first two episodes, while the postholes related to the third episodes. It was noticeable that the storage pits had been dug and subsequently carefully filled to maintain a useable living surface.

The much smaller and rather scattered excavations on Terrace 7 represent only 24 m<sup>2</sup>, or only 9% of the total area, however some idea of layout can be gauged. The main activities appeared to be cooking and storage. Change of activities could be seen, with the midden and storage pits being present in the pre-defended phase, while in the defended phase storage was constructed in the early episode and firescoops generally occurred later.

### HISTORY OF OCCUPATION

Clearance of the bush from the harbour shore, back towards the Kaimai Ranges, began sometime prior to 430 BP<sup>3</sup> (possibly 200 years or more earlier), as the Maori inhabitants developed their gardens and living sites on the Athenree headland. This is consistent with Matt McGlone's findings in the eastern Bay of Plenty which recorded deforestation immediately after the fall of the Kaharoa Ash c.660 BP (McGlone 1983).

There was an early undefended occupation of the site (Phase I dated to 430 BP), shown by gardening and cooking in the vicinity of Area 4 (Fig. 4), with cooking and storage taking place on Terrace 7, which may already have been a small terrace. From the beginning, the inhabitants made good use of the wide range of nearby resources: fishing and shellfishing in the harbour and ocean beach, as well as cultivating crops in the friable sandy loam soils on the headland. Fish remains identified by Blaze O'Connor and Aaron Goode, included barracouta, snapper, with possibly tuna, jack mackerel and trevally. Shellfish were dominated by tuatua, cockle and pipi.

Subsequently (Phase II dated to 320 BP) a ditch 1.7 m deep, was dug along the western margin and the spoil heaped up into a bank possibly 1.2 m high.

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<sup>3</sup> Charcoal from a pre-defensive phase firescoop identified by Rod Wallace, included coastal species typical of vegetation on cliffs in this area today, together with matai and totara. The last two were presumably derived from building timber waste (as there were no associated forest species), which could indicate that the forest had already been cleared from the region.

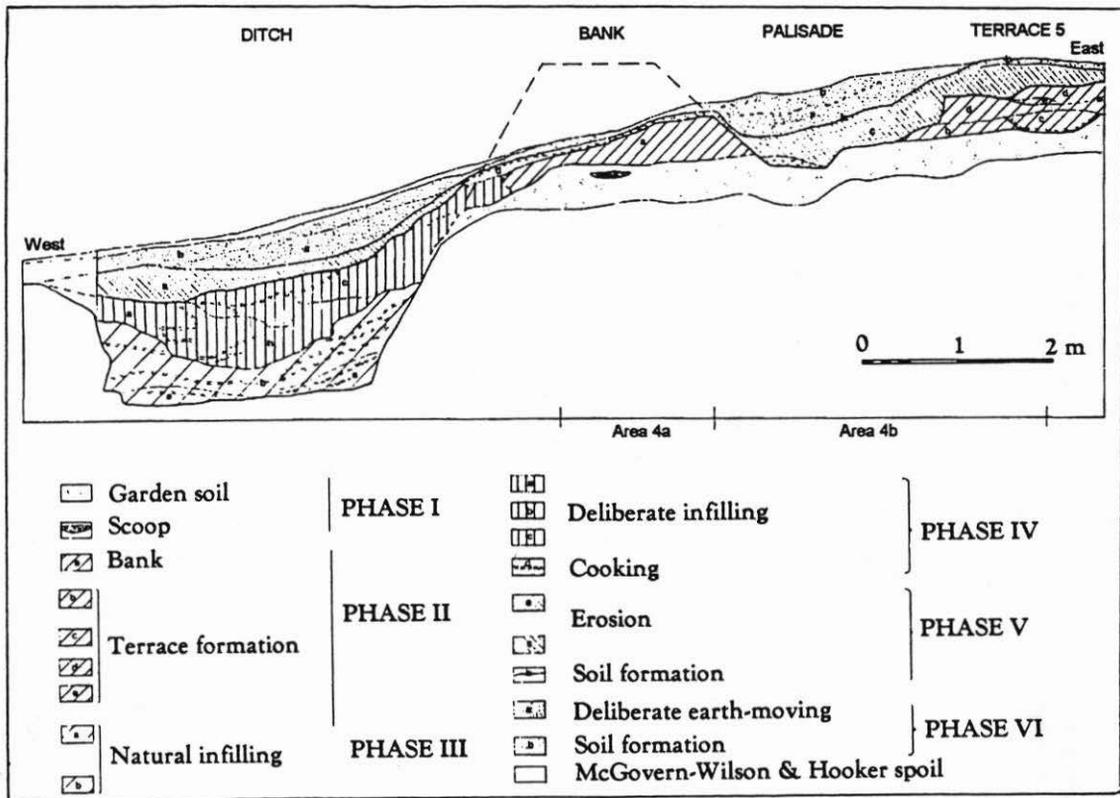


Figure 4. Cross-section through the defences in Area 4, Anitere Pa, showing the phases of occupation and abandonment.

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Behind the bank there were two lines of palisades set 1 m apart, the posts of which were 0.4 m in diameter and might have risen 2-3 m high. The defences enclosed a large area some 8,500 m<sup>2</sup> in extent, and must have represented an important Ngamarama fortification and statement of *mana whenua*. It appears that a communal level of storage was practised here, where large amounts of food, in addition to subsistence requirements, were needed for ceremonial occasions and as a sign of prestige. Similar dates from adjacent sites<sup>4</sup> could indicate that there was an expansion of settlement in the area at this time. A flight of terraces descended from the north, on which there had been at least three episodes of occupation, involving a re-arrangement of activities. All of this activity probably related to the defended phase, that may have lasted over some 50 years. This occupation included storage, housing and other structures, the use of obsidian<sup>5</sup>, as well as the cooking of shellfish and fish amongst other foods.

There was a period of abandonment (Phase III) marked by the collapse of the bank, resulting in the partial infilling of the ditch. It is unlikely that the site lay deserted for over 200 years. Indeed, some of the obsidian hydration dates suggest reoccupation in the intervening period, although these have yet to be confirmed.

Later again (Phase IV), the bank and other soil was pushed into the ditch, in association with a single episode of ploughing on the largest two terraces. Possibly at the same time two large round pits were constructed and filled with beach sand, one of which contained a fragment of glass and the other a sherd of pottery, both dating to the late 19th or early 20th century (Rod Clough pers. comm.).

There was a period (Phase V) of some erosion into low lying areas in the ditch and behind the bank, and a topsoil formed.

Another phase of deliberate soil movement occurred on the site (Phase VI dated to the 1960s), when the house on the northern half of the site was constructed. This continued the process of filling the ditch and the space

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<sup>4</sup> The shell samples from three adjacent pa were thought to predate the fortifications at 300±60 BP (U13/44), 330±60 (U13/48) and 330±60 (U13/49). Two nearby middens (U13/50) were dated to 335±35 and 441±34.

<sup>5</sup> All except 51 of the 232 flakes of obsidian were identified by Stephanie Clout and Phil Moore. Mayor Island was the main source (55%), Waihi (44%), and the only other source was probably Great Barrier.

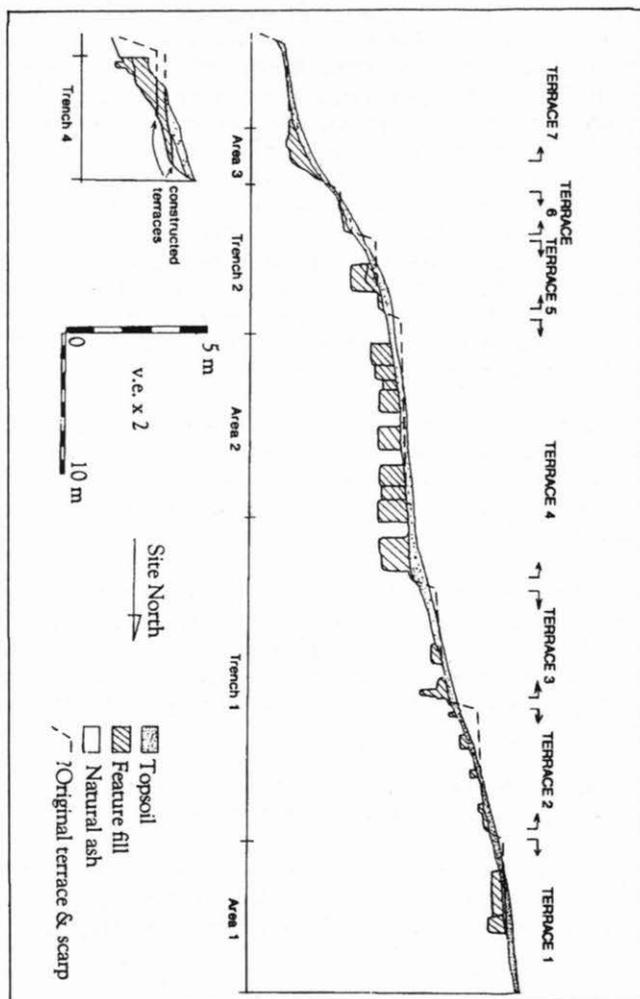


Figure 5. Cross-section from north-south through Anateri Pa showing the main features and terrace formation.

inside the defensive bank, and the fronts of the higher terraces were pushed into the backs of those below, thereby softening the contours. The difference in the surface topography could be clearly seen between the 1960 and 1982 aerial photographs.

## CONCLUSIONS

This excavation was required to answer the problems caused by the different archaeological interpretations of McFadgen in 1980 and those of McGovern-Wilson and Hooker in 1995. Also, further information about the layout and stratigraphy of the site was a condition of the authority issued by the New Zealand Historic Places Trust. The Anaterre excavation has successfully provided answers to the outstanding problems and fulfilled all the conditions of excavation. However, it also raises the question of whether further work should be undertaken in the region.

The excavation and analysis of a single pa site in an area, while giving some useful potential information on site function, cannot provide for a full interpretation of its role within the region. The growing pressure to subdivide land near Athenree for housing and intensive horticulture, together with the substantial destruction of archaeological sites that has already taken place, means that the opportunity to gain a full understanding of the pre-contact history of the area might already be lost. On the other hand, a substantial remnant of the archaeological landscape is still intact. Research and archaeological resource management strategies need to be put into place with some urgency to prevent the remaining archaeological features from being lost forever.

In 1980 McFadgen stated:

"The Athenree district is an example of an archaeological landscape apparently once common around the Tauranga Harbour - coastal pa on promontories jutting out into the harbour with hinterlands containing numerous shell middens... and the *Athenree district appears to be the least disturbed example remaining*" (McFadgen 1980:2, emphasis Phillips and Allen).

Despite this strong claim for preservation, or at least investigation of the sites in the Athenree district, there has been extensive destruction of the archaeological record. All the pa have been damaged, some severely, and many of the 200 recorded middens have probably been destroyed (Fig 1). The latter, some containing pits, structures and obsidian, as well as the obvious shell, are undoubtedly an important feature of pre-European landscape use, and the dates suggest that some are of similar age to the early occupation on the pa.

In the light of the previous Historic Places Trust surveys and test excavations, as well as this detailed investigation, and acknowledging the importance of this remaining section of the Western Bay of Plenty archaeological landscape, it is suggested that a programme of studies should

be initiated. Some of these may be part of the mitigation process, which should proceed before continuing development (there is no reason why rescue archaeology cannot have a research component).

A team approach, involving members of Te Whanau o Tauwhao, archaeologists from Auckland University and the Historic Places Trust, could develop a research programme to investigate outstanding questions regarding: the date and nature of first settlement and forest clearance, the development of fortifications and their relationship to the mass of undefended settlements, and the chronological and functional relationships of the pa to each other. Through these studies it would be possible to develop an understanding of the role the sites had in the socio-political and ecological lives of the former Maori inhabitants, and the changes that occurred over time.

### ACKNOWLEDGEMENTS

A full list of acknowledgements is included in Phillips and Allen (1996). Here the excavators and tangata whenua are given credit, most of the analysts are credited within the article.

The February excavation team comprised the authors plus Brent Druskovich, Martin Jones, Tsering Kesang, Josephine Lane, Blaze O'Connor, Kimi Pepa, David Salt and Justin te Moananui (who unfortunately sprained his ankle and had to leave after two days). Aaron Goode and Jocelyn Logan volunteered their time. Also giving a few days assistance were Anne Geelen, Claire Reeler and Carla, as well as visiting archaeologists from Canada Catherine Carlsson, George Nicholas and their two sons George and Graham. In May, the excavation team incorporated all volunteers, including Aaron Goode, Jocelyn Logan, Phil Moore, Blaze O'Connor and David Salt.

We would also like to thank Kemureti Taikato for his generous support, and especially for providing a name for this site (although not the original name, it has significance for the tangata whenua).

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