One hundred and ninety-eight prehistoric pa (=forts) are known from the Auckland metropolitan area and over half of these have traceable Maori names. At least 20% of the sites have been completely destroyed and another 20% have suffered extensive damage caused by land ploughing, urban sprawl, quarrying, public works and marine erosion.

Most pa in the area were built between 1450 and 1830, with the majority probably constructed during the late 16th to early 18th centuries when the area had its largest prehistoric population. Distribution of pa sites reflects the distribution of the prehistoric population. Inland pa are clustered around Auckland's volcanoes where extensive gardens were established on the rich volcanic soils. Others are associated with smaller gardens on the islands of the inner Hauraki Gulf and the lower valleys on the west coast of the Waitakere Ranges. Coastal pa were built along most shorelines with a notable exception being the western and southern shores of the inner Waitemata Harbour.

The pa sites are classified as: 1. Volcanic hill pa - large sites with extensively terraced slopes and upper portion often fortified with pallerades; sometimes a few ditch defences across crater rims. 2. Ridge and hill pa - moderate-sized sites, often with ditch and bank defences on 1 or 2 sides. 3. Coastal headland pa - small to moderate size, usually with ditch defences across the landward side. 4. Clifftop pa - small size, naturally cliffed defences on one side with other 3 sides ringed with ditch and bank defences. 5. Island pa - on small islands surrounded by cliffs, no earthwork defences. 6. Swamp pa - on platform erected in swamp and surrounded by pallerades.

INTRODUCTION

The landscape of Auckland is dominated by the man-made structures and scars of 150 years of European settlement. So immense have been the changes in this short time that it is very easy to forget that this was the home of prehistoric Maori people for about eight centuries before the arrival of Europeans.

The mark left by these prehistoric people was not insignificant, especially in the vast areas they cleared of forest, the large gardens they established on the volcanic soils of Auckland Isthmus and the earthworks they undertook to create settlements, gardens and to
produce fortified positions.

Today the only clues we have to the history and way of life of Auckland's first settlers, apart from traditional oral histories, are contained in the prehistoric archaeological sites of the area. These are places that contain physical evidence of prehistoric human activity and include large numbers of shell middens (rubbish left from shellfish meals), small terraces, clusters of rectangular pits (basal portions of buildings used for storage of food), rock shelters, stone heaps, rows and walls (produced when clearing stony ground for gardens), earth ovens, artefact find spots, undefended village sites and forts (pa).

In the Auckland area (Fig. 1), European activities have destroyed large numbers of archaeological sites. Of those that remain (2 000 are currently recorded on the N.Z. Archaeological Association site record file), the most easily recognised are the imposing earthworks of the prehistoric pa sites.

One hundred and ninety-eight pa are known to have existed in the area and these are shown in Fig. 2 and 3. At least 40 have been completely destroyed and another 39 have been extensively damaged. Damage and destruction have resulted from many activities, particularly ploughing of the land for farming, quarrying away of Auckland's scoria cones, construction of roads and bridges and

Fig. 1. Map of the Auckland metropolitan area referred to in this paper, showing main physiographic areas, distribution of rich volcanic soils developed on Auckland basalt, and major prehistoric canoe portages and inland tracks.
flattening of land for house sites. Natural marine erosion too, has extensively damaged a few coastal pa sites.

This paper is a brief review of the distribution and types of pa site in the Auckland metropolitan area. All the sites mentioned here are more fully documented in the New Zealand Archaeological Association’s Site

Fig. 2. Prehistoric pa sites in the western parts of the Auckland metropolitan area and their current preservational status. Maori pa names are taken from Diamond and Hayward (1979).
Fig. 3. Prehistoric pa sites in the central and eastern parts of the Auckland metropolitan area and their current preservational status. Maori pa names are mostly from Simmons (1979).

K = Kohimaramara, N = Ngahuwera, P = Te Paneohoroioi, PU = Pukapuka, R = Te Reuroa, T = Tauraru, TA = Takaiauho, TG = Tangihangaapuka, TO = Tokoparawha, TT = Te Tokatuawhaoroa, W = Whakatakataka, WA = Waitaramoa, WK = Waikohanga
Tribal history of the Auckland area

The traditional history of the Auckland area is very complex and only that of the last century (18th) of prehistoric occupation is well documented. The Auckland Isthmus was obviously a much sought after territory because of its rich volcanic soils for gardening, the abundant marine resources that surrounded its coast and its strategic position bridging the east and west coasts and lying across the path of the sheltered waterways and canoe portages (Fig. 1) between the Kaipara, Waitemata and Manukau Harbours and the Waikato River to the south.

The following is a simplified review of the tribal history.

The first pa in the Auckland area are thought to have been built by Ngati-Awa descendants who settled in the southern Kaipara, Waitakere Ranges and Auckland Isthmus areas in the 15th and 16th centuries. There was considerable fighting between subtribes in the area in the 16th, 17th and early 18th centuries by which time the Waiohua were tribal owners of the Auckland Isthmus, the Kawerau dominated the South Kaipara and Waitakere’s west coast and the Ngati-Paoa commanded the Hauraki Gulf and eastern portion of Auckland Isthmus. This was probably the peak period of pa construction in the area, as well as the time of greatest prehistoric population.

During the 18th century the Ngati-Whatua advanced southwards from the North Kaipara securing the South Kaipara and eventually the Auckland Isthmus for themselves after some bloody massacres of the Kawerau and Waiohua people. The number of Ngati-Whatua occupying the Auckland area was never large and they were probably responsible for many of the small earthwork defences that were late modifications to several of Auckland’s volcanic hill pa, established by the earlier tribes (Fox 1977).

In the early 19th century the Ngati-Whatua and Ngati-Paoa temporarily fled the Auckland area in the face of musket-wielding Ngapuhi raiding parties from the north leaving the isthmus apparently deserted when the first Europeans arrived.

DESCRIPTIONS OF TYPES OF PA SITE (Fig. 2 - 4)

Volcanic hill pa (Fig. 5)

The largest pa sites in the area are on Auckland’s volcanic cones, although some of the smaller cones have correspondingly smaller pa sites. Typically the hill slopes are extensively terraced. In many instances, especially on the lower slopes, these terraces were probably outside the defences of the pa and were used as well-drained sites for storage huts, houses and living areas. The small number of excavations
Fig. 4. Plans of examples of the different types of pa site: a. volcanic hill pa (Te Kopuke); b. ridge pa (at Te Henga); c. clifftop pa (Omana); d. coastal headland pa (Te Raeokahu); e. island pa (Kauwahaia).

that have been made (Fox 1977, 1979) suggest that often only the uppermost terraces or terraced crater rims were surrounded by pallisade defences. When hostilities threatened, people living on the lower terraces could retreat up the hill into the defended area of the pa.

The majority of these volcanic hill pa sites lack any ditch and bank defensive earthworks, but five (Maungakiekie, Maungarei, Motukorea, Ohinerau, Te Kopuke) each have several ditches cut across their crater rims, enclosing smaller, more strongly defended high points. These
ditches and banks cut through earlier formed terraces and appear to have been added late in the prehistoric period (Fox 1977).

Of the forty known volcanic hill pa of Auckland, 70% have been severely damaged or destroyed, mostly by quarrying (Fig. 3). The best preserved sites today include Mangere, Maungakiekie, Maungarei, Maungawhau, Motukorea, Ohinerau, Takarunga and Te Kopuke.

Clifftop pa (Fig. 5)

Clifftop pa were sited on the edge of coastal cliffs where only one side was afforded natural protection. These sites differ from coastal headland pa which have 2 to 3 sides with cliff defences. Clifftop pa were often, but not always, sited on natural high points along the cliff edge. They are usually among the smallest pa in the area (c. 50-200 m²).

Most of these pa are referred to as ring-ditch pa because they are ringed on the three landward sides by ditch (and sometimes bank) defences which would have been topped by pallisades. Inside the defences, the pa often contained only a platform, one or two terraces and a few pits.
At least eleven clifftop pa are known in the Auckland area - mostly along the eastern shores of the Manukau Harbour. The best preserved and most accessible examples are at Omana, Ihumatao and Drury.

**Ridge and hill pa (Fig. 6)**

These are inland pa built on ridge crests and hills other than the scoria cones of Auckland’s volcanoes. The elevated sites chosen all provided varying degrees of natural protection. The crest and upper slopes of these sites, which were of moderate size (c. 200-2 000 m$^2$ in area), were usually extensively terraced, often with many storage pits. In most cases these pa would have been completely surrounded by at least one set of defensive pallisades.

The steepness of the ridge or hill slopes seems to have determined whether there was a need for additional earthwork defences. Where the slopes were gentle, artificial scarps or ditches and banks were usually added for defence. On ridge sites, one or both of the ridge crest ends were characteristically protected by additional transverse ditch and

![Fig. 6. Northern Waitakere Ranges from the north-west showing the sites of nine ridge and hill pa (stars). Most are sited around the lower portions of the Waitakere, Wainamu and Mokoroa Valleys, which were favoured cultivation areas. Photo: D.L. Homer, N.Z. Geological Survey.](image)
bank defences.
Ridge and hill pa are the most common types of pa in the Waitakere Ranges, Whitford Hills and on Awhitu Peninsula. Among the best preserved examples are Awakarihi, Te Komoki and at Wainamu (Te Henga) and on Motutapu Island.

Coastal headland pa (Fig. 5, 7)
A large number of the pa in the Auckland area were sited on coastal headlands that were endowed with natural defences in the form of steep cliffs on two or three sides. The landward side or sides were generally protected by one or more ditches dug across them and sometimes associated with raised parallel banks. A line of pallisades would have been positioned along the top of the ditch on the inner side.
Well-preserved and accessible examples of these pa are Karangahape, Rahoparaoperetu, Te Naupata, Te Raeokahu and on Motutapu Island.
extended over all of the small island or large rock on which they were constructed. All level ground was utilised and usually small terraces were dug into the upper slopes. Island pa relied on their isolation and encircling cliffs for most of their defences. Pallisades may have been erected along the edges of some of the lower terraces but no earthwork defences as such were constructed. The best preserved examples are Kauwahaia and Whakaari on the west coast of the Waitakere Ranges.

Fig. 8. South Piha from the north showing two island pa sites: a. Taitomo and b. Whakaari. Photo: D.L. Homer, N.Z. Geological Survey.

Swamp pa

Only one swamp pa is known from the area (in Bethells Swamp, Te Henga) and it is known from traditional oral descriptions only. It is said to have been a wooden platform erected on totara posts in the swamp and surrounded by pallisades (Hayward and Diamond 1978, p.77).

DISCUSSION

Most of the pa sites of the Auckland area were built during the last 400 years of prehistoric occupation (c.1450-1830 AD), with the majority probably constructed in the late 16th to early 18th centuries.

The type of pa built and their location depended on several factors, not the least of which was the population distribution. It is obvious
from the distribution of pa (Fig. 2, 3) that certain parts of the region were more favoured than others and this was related to the natural resources. The rich volcanic soils that had developed on the lava fields and ash deposits of Auckland’s volcanoes (Fig. 1), except the very young Rangitoto Island, were the main attraction. Through the centuries, many hundreds of hectares of these on the Auckland Isthmus and in the Mangere-Manurewa area were cultivated (Sullivan 1972), probably on a rotational basis. As the gardens covered most of the lava fields, the living areas and storage huts were sited on terraces dug out of the slopes of the nearby volcanic hills, the summits of which were well-suited for pa sites.

From the scarcity of archaeological sites it is clear that the rolling clay gumlands of west Auckland, North Shore and the Whitford Hills were of little attraction to the prehistoric Maori, and neither were the rugged, forest-clad Waitakere and Hunua Ranges. The alluvial flats and sheltered hillsides of the lower reaches of valleys in the western Waitakere Ranges were attractive for cultivations however, and a number of inland ridge and hill pa were built around them. The climate of the inner Hauraki Gulf islands also made these favoured cultivation areas and many pa were built as defended retreats for the communities centred around their gardens.

In addition to being clustered around cultivations, the prehistoric Maori people also lived in concentrations along the coastlines, adjacent to the rich marine resources and the most effective means of transport - their canoes. For most of the time communities lived on the flats behind the beaches or on the gently-sloping coastal hillsides. Pa were usually constructed nearby on sites with the best natural defences, such as small islands and cliff-bound coastal headlands. On some stretches of coast that were poorly endowed with naturally defended positions, such as the eastern shores of the Manukau Harbour, pa were sited on the edges of low cliffs and ringed with earthwork defences (ditch and bank) on the landward sides.

Like the inland areas, there were also stretches of coastline that were obviously little favoured for permanent settlements and pa. Such stretches include the western and southern shores of the upper Waitemata Harbour (mostly intertidal mudflats) and to a lesser extent the northern shores of the Manukau Harbour and the East Coast Bays of the North Shore (Fig. 2, 3). An explanation of the sparseness of permanent occupation sites in these areas may be that they formed boundaries between tribal lands for long periods of prehistory.

In some parts of New Zealand, pa were strategically sited along major inland routes, waterways or portages. This is not particularly evident in the Auckland area. The only possible examples are: Pukearuhe, on the inland track from the Auckland Isthmus to Kaipara; Karaka and Otahuhu pa on the Whau and Otahuhu portages; and Mokoia on the narrowest portion of the Tamaki Estuary waterway.
ACKNOWLEDGEMENT

I am grateful to Ian Keyes for critically reviewing the manuscript.

SELECTED REFERENCES FOR FURTHER INFORMATION


APPENDIX I. Location details of pa mentioned in the text.

<table>
<thead>
<tr>
<th>Maori name</th>
<th>European name (or area)</th>
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<td>Kauwahaia</td>
<td>(Te Henga)</td>
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<td>One Tree Hill</td>
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<tr>
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<td>Maungawhau</td>
<td>Mt. Eden</td>
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