



NEW ZEALAND
ARCHAEOLOGICAL
ASSOCIATION

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER



This document is made available by The New Zealand Archaeological Association under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

To view a copy of this license, visit
<http://creativecommons.org/licenses/by-nc-sa/4.0/>.

WAIKATO SWAMP AND ISLAND PA

D. Pick

The middle and lower basins of the Waikato River system are particularly rich in pa sites, villages, fishing camps and cultivations. The Waikato tribes have a saying about the dense population along the Waikato and Waipa Rivers - "Ko Waikato he taniwharau, he piko he taniwha, he piko he taniwha" - meaning "On the Waikato there are a hundred taniwha or chiefs and on every bend of the river there is a chief or pa". In actual fact there are far more than one hundred pa, when pa on lagoons, streams and lakes are included.

Further evidence of the one-time dense population is the thousands of acres of old cultivations which border the river system. In the middle basin where one time the Waikato River was called the Horotiu by the Maori, the observant eye can still easily pick out the old cultivations by the thousands of "borrow pits" that dot the landscape from which the Maoris carried the sand, pumice, and shingle to spread over the cultivations. These borrowed soils were used to warm or make friable stiffer clay soils.

The purpose of this paper is to place on record the pa sites on and around the Rukuhia swamp. The Waikato Archaeological Group have recorded seven pa; all are situated on lakes which at one time teemed with eels, koura, waterfowl, kakahi, shell fish. The lake margins were dotted with raupo flax and rushes and the undulating low hills with forest with its association of berries, birds, tree cabbage and rat runs. Surely here was the complete economy for a stone age people. It is not known how many lakes and lagoons once existed in the middle basin but there were many, some of which have disappeared within memory. Many of these lakes and lagoons had natural mounds of the shoreline which the Maori fortified with palisades, ditch, bank, and sometimes a moat. The smaller lakes and lagoons were used as fishing camps, some as permanent villages. In one lake a large island was made.

THE FORTIFIED SITES

Manga-ka-ware Pa (N65/28) is on a 40-acre boomerang-shaped lake, the western shoreline is low hills and the other shorelines are swamp; the lake margins are narrowly fringed with raupo due to the shelving of the water.

In the inside of the elbow of the boomerang is a natural mound about 4' to 6' above the lake level; it is about one-third of an acre, with deposits of ash, charcoal, shell and oven stone varying from 18" to 24". The most outstanding feature of this pa is the depth and strength of the fortifications which still stand, the inner line post butts are heavy totara, the second and third lines are much higher, up to 8' high. They are 3' apart. It does appear that the palisades near the water are much better preserved due to the dark waters heavily impregnated with tannic and humic acids. This applies also to all other Rukuhia lakes.

On the swampy land side there are signs of a moat. Between the inner palisade line and the outer line there are other lines of heavy posts and stakes. The total depth of this line is 25', the moat running between the lines. This complex line could have been part of a puhara or fighting stage, a usual part of a Maori fortification. Out in the waters of the lake are at least 200 stakes averaging 2" in diameter, all sharpened in the usual manner, cut on one side only and pushed deep into the lake mud. These stakes still bear the bark, stringy in the case of manuka and in patches in the case of other timbers. Lying in the mud are totara chips, each curled as it was cut by the stone adze. There are enough tall palisades standing to carry a farmer's electric fence. Thirty years ago some of these palisades had carved heads.

When our group first visited this pa we pulled out of the mud and water what appeared to be rotting stakes which, when removed, proved to be paddles or agricultural tools. An enquiry of the farmer owner as to the material previously found was enlightening - all types of wooden weapons and tools had been removed by children over some years. The material when cleaned of mud and slime was in perfect condition and when dry was perfectly sound; the mud also held stone tools and implements.

Out in the lake water about 20' to 25' are lines of stakes that could be part of an eel weir. These stakes are a feature of all the Rukuhia lake pa; where the stakes are heavier than usual they bear many stone adze marks. This site and several others could be of interest to students of the pre-musket fortifications. The time is getting late; the advent of the bulldozer and drainage machinery is hastening the total destruction of these historic places.

Rotokauri Pa (N56/5) is situated on a very low mound on the edge of a 35-acre lake. The lake is on two sides and a deep swamp on the other sides. The total area that was fortified is rather small, equal to the floor area of a large house, but the size and number of the totara posts and their irregular placing does not entirely suggest the usual fortification, rather a staging on which the houses were built. Clusters of heavy totara posts still stand out of the wet marshy ground to the height of four feet. The present water level of the lake, as in the case of all the swamp lakes, is an all time low; the drying and decaying vegetation on the perimeter*strongly suggest an unusual drop in water level. The highest

part of the mound is only 3' above the low 1967 water level, and in the 1800 era before the drainage of the swamps this mound must have been only a few inches above water level, even now the soil is spongy. This idea of an elevated living stage is not new, it was used by the Otaki tribes, the Mua-upuko, and the Rangitane in the Horowhenua Lakes, it was also used by the Ngai-Tatara tribe in Lake Tutira in Hawkes Bay. These structures would be similar to the Swiss Lake dwellings.

The site is about 150 yards from higher ground which show signs of old cultivations. The midden of ash, charcoal and oven stones varies from 8" to 15" suggesting a rather short occupation.

An unusual feature of the lake is the kakahi shell-fish; on all the other lakes the shell is long, thin and of small size, but on Rotokauri the shell-fish is much larger, rounder and plump. The lake is surrounded with the usual association of raupo rushes and manuka, the breeding place of waterfowl.

Marototo Pa (N65/22) is situated on a 40-acre lake; it is on a low natural mound standing 4' or 5' above the 1961 water level. It was lightly fortified on all sides. On the lake side the totara palisades still stand but on the land side, which is swamp, the palisades have rotted away. Two adze marked posts were found in 1961. The depth of midden varies from 1' to 3'. On this site the deposit is mainly charcoal with some ash shell and oven stone; this black soil is heavily impregnated with fat or some substance of a greasy nature foreign to the area. This black greasy soil cannot be easily removed from the hands by using water only. The area is about half an acre. About 200 yards due West of this pa is a natural mound, an acre in area, standing 4' or 5' above the swamp. The local people who have farmed the surrounding hills for the last 80 years call this mound "the cultivation". When originally discovered it was covered with man-made pits.

Mangahia Pa (N65/24) is situated on a 60-acre lake; its area is about $\frac{1}{4}$ acre; the mound stands about 6' - 7' above the 1961 water level. The mound is about 200 yards from the low hills. The very heavy fortifications of this pa are worthy of more than passing notice. The palisades on the lake side are 4' apart and in a single row, but on the swamp (land) side they are 30" apart and in three rows, with 20' between the outer and inner row. The outer row all lean inwards. In 1958 there were at least 20 palisades still standing up to 9' high, others equally tall had rotted off at water level and had fallen into the mud which preserves them perfectly. The stumps are still in position and about 12" to 36" out of the mud and up to 5' deep in the mud.

The fallen palisades and the deeply driven butts on removal and cleaning still show the adze marks. The palisades were too tall and big to be driven in by the usual hand maul. They probably were driven

in by attaching a crossbar pole to the palisade and several men pulling down on the ends of the crossbar and later lifting the position of the crossbar until the palisade was firmly and deeply driven.

The midden deposits of ash, charcoal and oven stone vary from 1' to 2'. There are the usual shell deposits found on all these lakeside pa. Unfortunately, the lake level has fallen and a causeway built out to the island and the fallen palisades removed in a clearing up campaign. There is a canoe in the deep lake waters; forty odd years ago the writer saw many of these old Waka ti-wai on the Rukuhia lakes.

All the four lakeside mound pa previously mentioned are fortified, possibly because of their isolation. The next three pa are open villages on Lake Ngaroto; they are situated within a half mile of Turanga-miru-miru, a strong hilltop pa of about two acres in area.

Banks Road Pa (N65/14) is situated on the southern end of the Ngaroto lake. It is a natural mound of one-third of an acre and about 5' above the 1958 water level. There is a swamp between the pa and the dry ground which gave the mound some protection from the land side. The midden deposits of ash, charcoal, shell and oven stone vary from 2' to 4' in depth on a clay subsoil. The most interesting feature of this pa is the underwater palisades placed in such a fashion as to impede canoes approaching the pa. This hazard still causes trouble for the local yacht club. A few chains south of the pa is a depression where the lake at one time ran into the low hill. Old residents called this "the canoe harbour". This pa is about 500 yards from the fortified hilltop pa, Turanga-miru-miru.

Steighs Pa (N65/16) mound is situated on the western side of the Ngaroto lake. The pa stands about 5' above the 1958 water level and is almost surrounded by the lake on one side and a swamp on the other. The area is about half an acre; the deposits of ash, charcoal, shell and oven stone vary from 2' to 5'. Test excavations by the Waikato Archaeological Group clearly show no break in colour or consistency of the deposit, which suggests long and continuous occupation; no evidence was found of added soils from outside the mound. There is a line of post butts about 15' apart all along the lakeside, which possibly one time surrounded the whole mound, suggesting a fence or taipapa and certainly not a palisaded fortification. The pa has been sown in grass and all pits filled. The low swampy western approach has been drained by the lowering of the lake level, and where there were rushes growing six years ago there is now pasture. This pa or, rather, village is about 400 yards from the fortified hilltop pa, Turanga-miru-miru.

Turanga-miru-miru Pa (N65/17). This fortification is on the western side of the lake. When our group first visited the pa there were a dozen or so house sites. There were several terraces and a

ditch and bank and pits. Farming operations have now obliterated all signs of earthworks except the terraces. The writer visited the pa during these operations on four occasions to try and discover signs of occupation. In spite of careful observation, the only signs within the two-acre area were three broken oven stones. Outside the fortification on the slopes there was evidence of occupation and cultivations by the scattered patches of dark green grass on the sunny slopes and odd oven stones on the eastern side. This pa is mentioned in Leslie G. Kelly's book, "Tainui"; it was the gathering place of the Waikato Tribes before the big battle of Hing-haka on Te Mangeo ridge in 1807.

Ngaroto Pa (N65/18). At the northern end of the lake is a man-made island pa. It is called Ngaroto Pa for want of its correct name. None of the previously mentioned pa is correctly named but the name of the lake or owner is used; unfortunately, the correct names are lost.

The island is built about 250 yards from the old natural shoreline and the foot of the gentle slopes. The material used to build the island was dug out of the surrounding slopes. This material is brown soil and clays and sands of many colours and grains came from the slopes across the lake. The hillsides from where the clays were taken are now quarried banks. The oven stones as well as the anvils, hammers and grinding stones were carried from Te Rore some six miles away. The pa was not fortified but a fence or taiapa stood around the perimeter in 1920, the posts being 15' to 20' apart. These posts would be erected with rails to which light manuka stakes would be tied with forest vines; hardly an effective fortification.

The Waikato Group first opened up one of the deep fossickers pits to the depth of 7'6" and the profile revealed 25 layers of ash, char, sands, clays and living floors. At the bottom of the fill, timber appeared under which was 6" of peaty material overlaying brown clay. Our group opened up a line of 6' x 6' squares across the waist of the island.

(The Waikato Group invited the Auckland Archaeological Society to continue the investigation of the site, and Shawcross's preliminary report appears in this issue of NEWSLETTER. Mr Pick's paper at this point included a summary of the original excavation.

Editor)

According to history and tribal tradition, as well as archaeological evidence, the early people planned the island and erected a platform in the lake and built an island. As the build-up progressed the people blocked up the outlet of the lake. The Manga-o-toma stream caused the waters to rise around the island, thus giving some protection. There is strong evidence that in the final blocking up the lake waters rose several

feet and caused flooding up the reaches and arms of the lake, thus linking up swamps and lagoons and overwhelming kaihikatea and swamp kauri forests. These trees died and rotted off at the water level but the stumps were preserved by the acid in the water. These stumps were first observed by the writer in 1925. The trees grew on the swamp and the lower undulating slopes but all were cut off level. This was unusual for kaihikatea; when a bushman fells kaihikatea, he chops above the "flare" or thickened buttress so peculiar to the variety, and to the eye the tops of the stumps are irregular in height. The last of these stumps were removed only eight years ago. It is quite possible that the blocked up waters of Ngaroto lake would have partly covered the Bank's Road pa mound as well as Steighs mound.

After the Maori War of 1863 almost two million acres were confiscated by the Government. This, of course, contained the Rukuhia swamp. When the area was surveyed for settlement, the settlers whose farms bordered the lake banded together to clear the blocked up Manga-o-toma stream. This clearing of the stream has been an annual task and the lake water level has fallen possibly eight feet since the war of 1863.

When time and opportunity permits, our group will visit and record the pa and villages on the many other swamps - namely the Moana-toa-toa and Piako.

REPORT ON THE NATURAL FOUNDATIONS OF THE NGAROTO SITE

R. Garry Law, B.E.

In Easter 1967 an investigation was undertaken to ascertain the relationship between the artificial mound and the natural lake sediments and swamp build up at the Ngaroto site, N65/18.

In historic times the lake has surrounded the mound, but it has since been lowered by the excavation of a channel deepening the outlet. There is evidence for a still higher level in the form of a scarp at the foot of the surrounding hills. It is apparent from the height of the scarp above the present lake that this level must pre-date the site. There is also some evidence for a raising of the lake level artificially, by damming the outlet during the period of archaeological occupation (D. Pick, personal