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## ARCHAEOLOGY OF THE LOWER WHANGAEHU RIVER VALLEY

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This paper examines the archaeological and historical evidence of Maori occupation of the lower Whangaehu River valley before about 1880. Since the early 1960s there has been sporadic interest in the archaeology of the river valley. Archaeological sites have been recorded, and some limited excavation undertaken, but to date there has been no synthesis of the resulting data. It is useful to consider the archaeological data along with data from historical sources as the historical data provides valuable assistance in identifying and interpreting archaeological remains.

The Whangaehu, Turakina and Rangitikei river valleys are all part of the tribal territory of Ngati Apa.

### Survey methods

The most recent site survey was done between 26 March and 6 April 1981. The area selected for survey was the river valley from the coast up to about 16 km inland. A small part of this area had been surveyed in 1979 by Glenis and David Nevin for the Forest Service. Much of the river valley beyond about 16 km as far inland as Mangamahu, had been covered by a previous survey done by Colin Smart in the early 1960s (Smart, 1962; Smart and Smart, 1963). Not all parts of the river valley have been covered in great detail: the Mangawhero, for example, has had only a fairly cursory examination.

Limited time was available to complete the 1981 fieldwork and emphasis was accordingly placed on rapid reconnaissance rather than detailed survey. Sites located were marked on air photos or assigned aerial photo co-ordinates (Wolf, 1974:81-2), or both, and a minimal description of the site noted. NZMS1 grid references were assigned when the Site Record forms were filled in.

The area was mostly in pasture and all but a few earthwork sites showed clearly on aerial photographs. Detailed ground survey was, therefore, restricted to selected areas. This is a sound method of survey given these conditions.

### Environmental setting

The area of interest is the Whangaehu River valley as far inland as Mangamahu (Fig. 1). Four main land forms may be

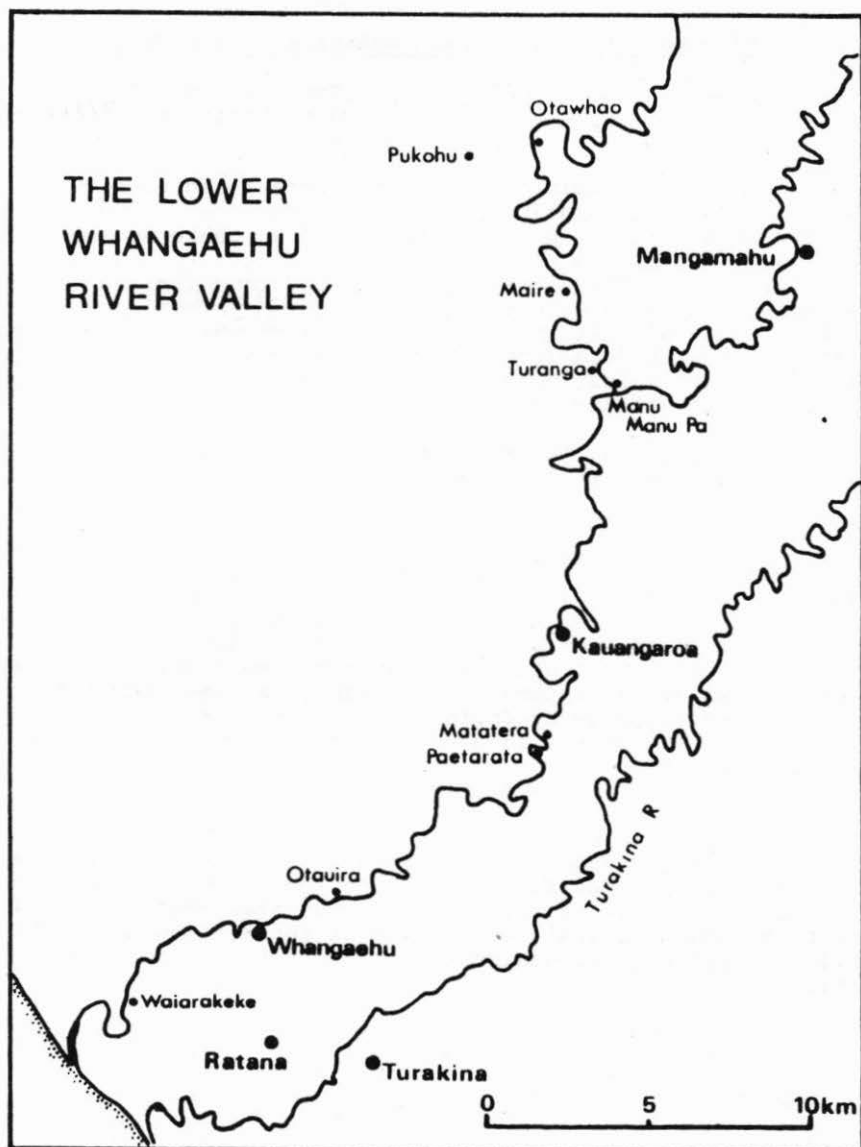


FIGURE 1. The lower Whangaeahu River valley.

recognised: the coastal sand country, the river valley, the terrace lands, and the hill country (Campbell, 1977, 1979).

Coastal sand country. An extensive complex of dunes and sand plains borders the coast. Differences in soil profile development indicate three distinct dune-building phases. These, in order of increasing age, are named Waitarere, Motuiti and Foxton. Waitarere dunes are recent and are less than about 150 years old. The advance of Motuiti dunes took place about 750 years ago and it is thought that the dunes stabilised about 500 years ago. The Foxton dunes are probably 2000 to 4000 years old. The advance of Motuiti dunes is, therefore, well within the period of human occupation. However, no archaeological remains have as yet identified on Motuiti dunes in this area. The small area of older Foxton dunes, on the other hand, has a dense concentration of pit sites. (Similar small areas of Foxton dunes near Lake Kaitoke (about 4 km from Wanganui) and near the Turakina River also have a marked concentration of pit sites).

The river valley. Soils of the river flats and terraces are derived from alluvium and include the Rangitikei, Manawatu and Karapoti series separated on the basis of drainage, age and parent material. Rangitikei and Manawatu soils are the youngest of the soils and occupy the lower-lying and more frequently flooded terraces. Karapoti soils are derived from sandy-textured alluvium resulting from lahars on Mount Ruapehu. The alluvium was deposited about 400 years ago (Campbell, 1973).

The waters of the Whangaehu are tainted by chemicals from volcanic sources in the headwaters on the slopes of Mt Ruapehu. In addition, events on the mountain created an additional flood hazard. In 1861, within three years of construction, the first bridge across the Whangaehu had been swept away by one such flood. Like the flood in 1953 that caused the Tangiwai disaster, it resulted from the breaching of the Crater Lake on Mt Ruapehu.

Coastal terrace country. The terrace country consists of undulating, dissected, loess-covered marine terraces. There is no evidence of substantial occupation.

Hill country. The hill country inland of the terrace land is deeply dissected. Narrow, steep-sided valleys are characteristic. There is little evidence of occupation although some pit sites have been recorded in the hills between the Whangaehu and Turakina Rivers near Matatera where the distance between the two is at its shortest. Above Mangamahu the river valley is narrow and the flanking river terraces and flats are absent. No sites are presently known to exist in the rough hill country above Mangamahu.

### Site types and their distribution

The distribution of sites indicates that the river valley was the focus of occupation. There is little evidence of occupation other than in, or adjacent to, the river valley. However, the distribution of sites along the river valley is far from uniform. Pit sites, in particular, occur in distinct clusters. There are a number of possible factors involved. There is, for example, an apparent correlation between the distribution of pits and the occurrence of Karapoti sandy loam soils, but other factors are also clearly involved.

This part of the coast around the Whangaehu-Turakina River valleys is also of interest because it is on the periphery of that northern part of the North Island where the greatest density of earthwork sites, particularly pa, are found (e.g. Gorbey, 1970). While pa, pits and terraces are to be found south of the Whangaehu and Turakina Rivers they are not found in the same numbers.

Pa (Fig. 2). To date some 19 pa have been identified in the lower Whangaehu and Mangawhero River valleys and three or four more, as yet unconfirmed, have been noted. The sites are spaced out along the river valley but with a small concentration of four sites (S22/2, 5, 6, 11) at one point where the river flows close to the side of the valley.

While all the pa are sited with defence in mind none is entirely defensive in function: most contain pits or other signs of habitation. Sites appear to have been chosen for their strong natural positions and their proximity to the river. The form of most pa is closely tied to the nature of the site. Short lengths of ditch/bank across ridges are the most common form of artificial defence. A couple of the exceptions are of interest. S23/3 (Fig. 3), situated in a terrace-edge position, has defensive ditches and banks on two adjacent sides and natural defences on the other two sides. S22/120, situated on a ridge, has artificial defences on three sides.

The single pa that is not sited on high ground above the valley floor is Kohurupo pa (S22/21). This pa, situated on a high point where a tributary enters the river, has a ditch/bank to defend the single approach not naturally defended.

From historical records it is known that none of the pa were occupied from the 1840s onwards. S22/21, known from oral traditions to have been occupied in about 1830, is the only pa for which there is any clue as to antiquity. Even this site may, of course, also have been occupied prior to that.

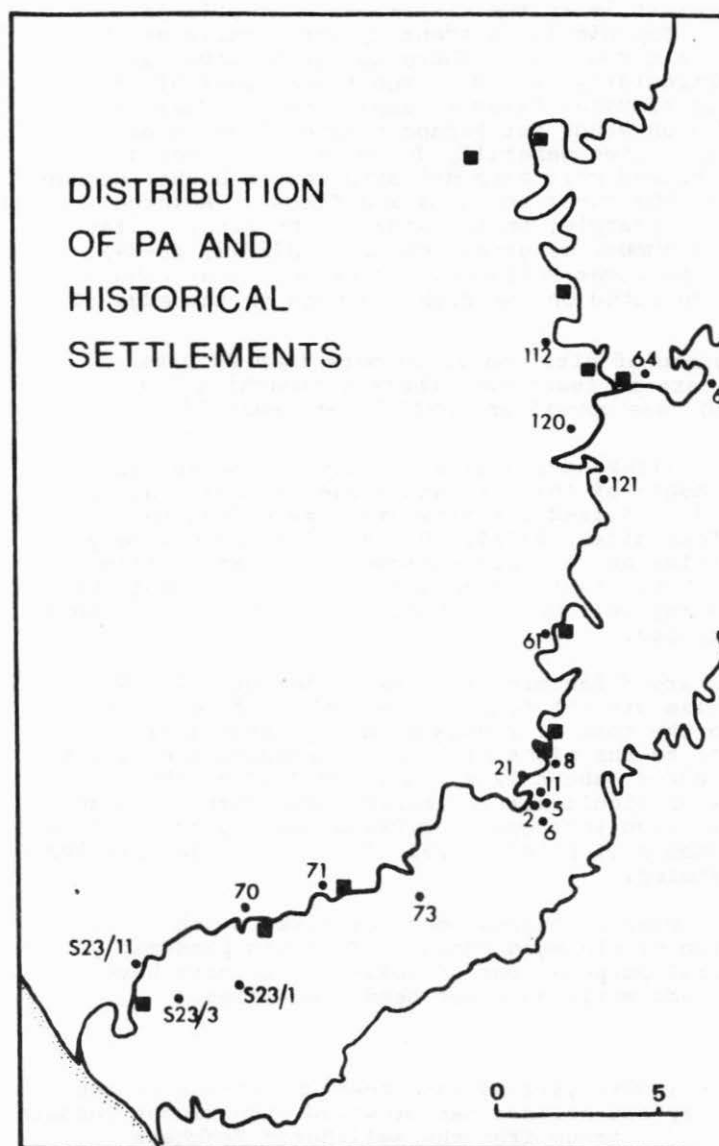


FIGURE 2. Distribution of pa and historical settlements. Site numbers are S22/ unless labelled otherwise. Historical settlements marked by a square. See Figure 1 for settlement names.

Pits. The main interest is in the distribution of pits in relation to soils. The aim is to identify which soils were considered favourable to gardening. There appear to have been two soils that were particularly valued. The older sands of the Foxton dunes and the alluvial Karapoti sandy loam. There are limited areas of Foxton sands but Karapoti sandy loam is more widespread. The pit sites generally do not occur on the Karapoti sandy loams, instead most pits are situated on higher ground, adjacent to, but off the river terraces and flats. A large Pleistocene slip, for example, on the side of the river valley provides sites for a number of groups of pits (S22/19, 80-84). Where pits do occur on river terraces, for example near Kohurupo pa (S22/21), they are sited on the higher ground on the edge of the terrace.

The largest group of pits contained more than 24 pits (S23/19) but there are at least two others approaching that S22/76 (at least 20, see cover) and S23/17 (at least 18).

Some of the pit sites have drains visible on the surface around the outside edges of the pits and these resemble raised rim pits (see Fig. 4). Raised rim pits are a rare feature on the west coast. Four sites (S22/85, 90, 92, 106) have a very unusual feature consisting of a pit enclosed by a small ditch and bank or both. These features do not look like conventional raised rim pits and may well be something else. For the present they remain unidentified.

Terraces. Terraces are a feature of a few pa notably S23/70 (Fig. 5) but otherwise are not common. A number of terraces were found cut into the tops of ridges so as to leave a high scarp at the rear or to the sides or both. Examples are S23/26 (about 26 x 9 m), S23/34 (about 22 x 8 m), and S23/49 (about 10 x 16 m). It is difficult not to imagine some sort of large structure sitting on such terraces. Terraces may occur in close association with numbers of pits: S22/91 (16 x 5-6 m) and S22/102 (22 x 20 m) are examples.

Borrow pits. In a number of places near the river mouth there is evidence of quarrying of old sand dunes. This was presumably done for horticultural purposes but no soil-profile pits have been dug and so no made soils have yet been identified.

### Excavation

Two small-scale investigations have been undertaken in the Whangaehu River valley but neither has produced significant results. In 1962 C.D. Smart and a group from the Wellington Teachers

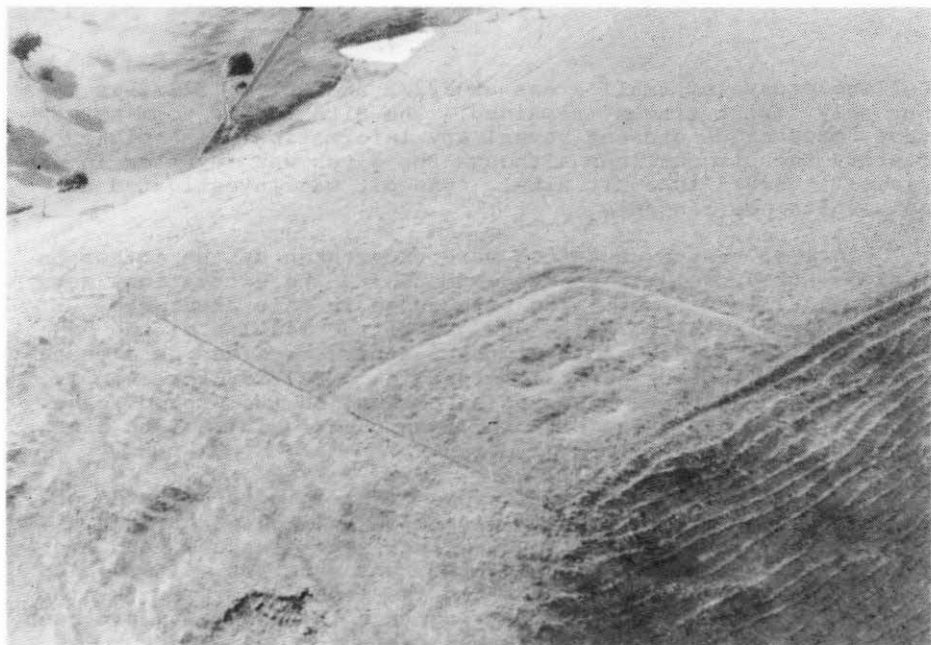


FIGURE 3. Site S23/3.

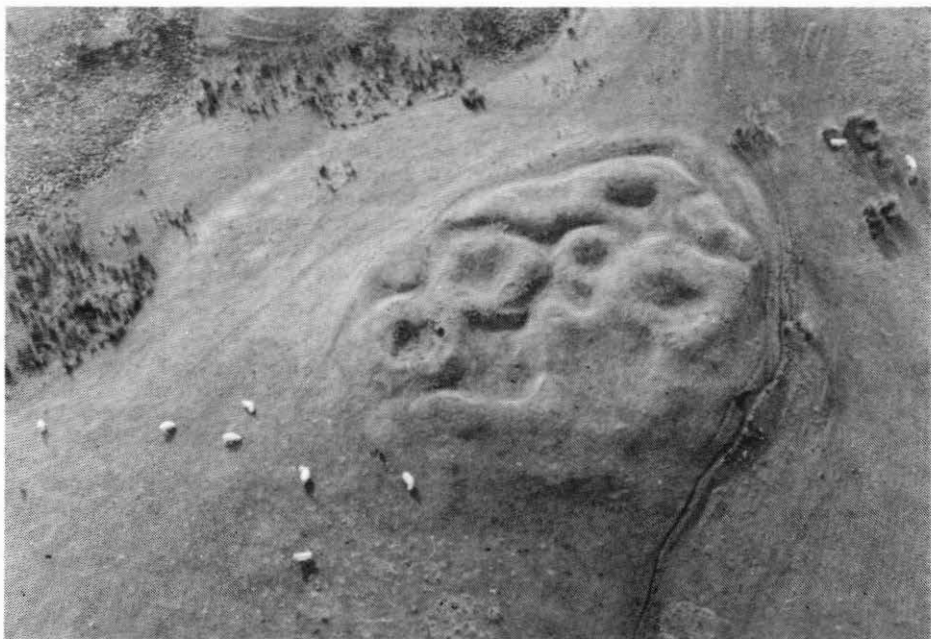


FIGURE 4. Site S22/4.



College excavated small areas at S22/2 and S22/3. S22/2 is a pa but only "faint traces" remained. The Site Record form notes that "excavation did not reveal any information which might clarify the pit outlines although the ditch was revealed in one place:.. S22/3 is a pit site. One pit was investigated but no results are recorded.

In 1983 test excavations were undertaken by the author on a number of sites near the river mouth. The excavations were exploratory in nature. The sand dunes in this area were covered by wind-blown silts and one of the results of the excavations was to show some of the features recorded as archaeological were in fact natural in origin. S23/15, for example, was recorded as three pits but on excavation two proved to be natural features. The area had been planted in radiata pine in 1975.

S23/17 is a large site of some eighteen pits situated on the middle and lower northern slopes of a large sand ridge. Two pits, in a row of seven side by side, were trenched, and two conventional storage pits uncovered, and a series of test pits dug. The excavations showed that the loess cover was thin or non-existent on the top of the ridge and that the pits had been dug into areas where the loess was deepest.

Test excavations were also carried out on other sites and on the adjacent river flats, searching for evidence of gardening. There were no significant results although there was evidence of a number of episodes of recent flood deposition of silts and sands.

#### Population size and distribution in the 1840s and 1850s

Early historical references to population are useful because they indicate the possible order of magnitude of the prehistoric population. The population of the Whangaehu and Mangawhero river valleys in the mid-nineteenth century was of the order of 150-200. It is generally assumed that the population in the 1840s and 1850s was in decline and hence was smaller than the prehistoric population.

One of the earliest references to settlement in the Whangaehu River valley is Wakefield's reference to "Wangaihu pa" described as "a small village ... about a mile from the mouth" which he visited in 1841 (Wakefield, 1845 I:228, 233). There is little doubt that "Wangaihu" is the Waiarakeke of later travellers.

In June 1843 the Rev. Richard Taylor carried out a census of people living in the lower Whangaehu and Turakina River valleys.

He counted 85 people. Although each individual is named, as are the settlements, it is not possible to determine how many people lived at a particular place. Of the settlements listed in his journal, however, three (Waiarakeke, Otairā, and Paetarata) were situated in the Whangāehu River valley.

In October 1843 Taylor travelled down the Mangawhero and Whangāehu Rivers. He again noted three settlements along the Whangāehu: Paetarata, Otairā, and Waiarakeke. Paetarata is described as "a little hamlet" and Otairā is a "kainga" (Taylor Journal 9 October 1843). Waiarakeke is noted as "the pa near the mouth of the river" (Taylor, Journal 9 Oct 1843). Taylor was accompanied by Noa, a chief of Mangawhero, as far as Otairā. The locations of both Paetarata and Otairā are marked on a map (part of the Taylor Collection in the Sir George Grey Collection, Auckland Public Library) that Taylor drew at that time (Taylor, Journal 9 Oct 1843). There is no difficulty identifying the location of Paetarata; it is clearly shown on Taylor's map and also appears as a place name on J. Thorpe's 1881 survey plan of the Matatera Block (ML 573). Unfortunately Otairā is on the edge of one of Taylor's maps and this makes it difficult to precisely locate the site. Taylor's map showing the lowest section of the river is lost but Waiarakeke is marked on a number of other contemporary maps (although the spelling varies). It is shown, for example, on the map in *Te Ika a Maui* (Taylor, 1855) as "Wairakaraka" and also figures on a plan "Sketch of Coast between the Rivers Manawatu and Patea and of the River Wanganui" compiled from existing maps by G.F. Allen in 1864.

Also in October 1843 Taylor extended the census done a few months before to the Mangawhero River valley. He noted that "Mangowero appears but a small place the entire population not exceeding a hundred" (Taylor, Journal 7 Oct 1843). The actual count was 91, this figure being that given in a table headed "Native population of Taranaki & outlying places in my District 1843" (Letter, Taylor to Church Missionary Society 28 March 1844, ATL MS Papers 254). Most of the inhabitants of Mangawhero appear to have resided at Pukohu and Maire as these are listed as having "teachers". Pukohu is shown on Taylor's maps and was some distance back from the Mangawhero. An 1867 survey plan (ML 3144) of Pukohu Block shows the exact location of the settlement. Maire is also marked on Taylor's maps and was situated on the right bank of the Mangawhero some seven kilometres upstream from the confluence with the Whangāehu. The location is confirmed by the appearance of "Te Maire" as a place name on an 1871 survey plan (ML 3039) of the Te Maire Block.

Taylor (Journal 20 May 1844) reports that "Mangawero natives some years ago were nearly exterminated by the Taupo natives.



FIGURE 5. Site S22/70.



FIGURE 6. Site S22/71.

The survivors fled and stayed 3 years at Maketu's pa afterwards they returned" (Maketu's pa was Kaiaraara, on the Wanganui River). In December 1844 a tawa from Taupo again descended on the Mangawhero "every man of that place excepting one being taken prisoner" (Taylor, Journal 31 Dec 1844). The report seems to have been exaggerated as soon after Taylor (Journal 3 Jan 1845) reported that "the Mangawhero natives called upon me they said 300 pigs had been either killed or taken by the enemy". Soon after these events people from the Mangawhero joined the inhabitants of two Wanganui River settlements to construct a new pa (Parikino) on the Wanganui River (Taylor, Journal 5 Nov 1845). A close relationship between the inhabitants of the Mangawhero River valley and those of the Wanganui is evident from these reports.

Although a large number of people, perhaps 70-80, moved to the Wanganui in the 1840s, survey plans done in the 1860s show a number of very small settlements. These include Pukohu (ML 3144), Otawahao (ML 3144), Manu Manu Pa (ML 3037), and Turanga (ML 2975, ML 3037).

In a census in 1850-51 reported by the Resident Magistrate (NM 8 1851/284) "Waiharakeke" is listed as having a population of 53, while Matatera had a population of 37. Otauira and Paetarata, mentioned by Taylor in 1843, are not listed but Matatera is in the same area as Paetarata and must be a reference to the same group of people. Survey plan SO 10552, compiled in 1856, shows the location of Matatera. The total population for the Whangaehu and Mangawhero River valleys is listed as 108. This is likely to be a minimum figure and the actual figure is probably of the order of 150-200. This can be seen when the figures from the 1850-51 count are compared with those from later censuses. The large population recorded by Taylor in the Mangawhero had dispersed, as described above. Later censuses also produced small numbers.

There is no listing for either Whangaehu or Turakina in the 1857-8 census of the Maori population (Fenton, 1859). The figure is probably incorporated in that given for Rangitikei which is listed as 647 (see map in A.J.H.R., 1861 ELC).

There were a number of censuses in the late nineteenth century but they vary in quality and are no more than a guide to the likely order of population. The 1874 census (A.J.H.R. G7:16) lists Whangaehu Bridge 140, Matatera 60 and Kauangaroa 60. In addition, 13 people were listed as living on the Mangawhero. These figures suggest a population of some 273 living in the Whangaehu and Mangawhero River valleys. This is the only census to indicate a population in excess of 200 people and this result must be regarded as anomalous.

The 1878 census (A.J.H.R., G2:19) lists Whangaehu (the "Whangaehu Bridge" of the 1874 and 1881 censuses) as having 33 inhabitants and gives a combined total of 100 for Matatera and Kauangaroa. The 1881 census (A.J.H.R., G3:17) produced a similar result with Whangaehu Bridge listed as population 37 and Matatera and Whangaehu (Whangaehu should read Kauangaroa) combined with a population of 90.

The Matatera Block was surveyed in 1881 by J. Thorpe and the plan (ML 573) shows details of settlement at the time of the 1881 census. Settlement was dispersed although it was still centred on the same location recorded as Matatera on survey plan SO 10552 (1856) and by G.F. Allen in 1862 (Field Book 171, Wellington Land District, Department of Lands and Survey). Most of the remains of ditch and bank fences described by Smart (1966) were in use in the 1880s and these provide much of the remaining tangible field evidence of this late period of occupation.

#### Subsistence patterns

The subsistence and settlement pattern suggested for the area is that described by contemporary writers (e.g. Dieffenbach, 1843) as characteristic of the period. Permanent settlements served as a home base for a population that dispersed in summer to gather food for winter consumption. Water transport was important in providing ready access to a range of scattered resource zones.

Unfortunately, little is known about subsistence patterns in the Whangaehu River valley itself. There is, however, considerable information about the Wanganui River valley (Walton n.d.) and some informed guesses may be made about the Whangaehu. There may be some differences arising from the lower water quality in the Whangaehu River.

Summer fishing off the mouths of the rivers seems to have been an important activity along this part of the coast. Wakefield travelled through the area in 1840 and there are several references to fish and fishing in his account. The Whangaehu is not specifically mentioned in this regard but fishing was clearly an important activity for the inhabitants of both the Wanganui and Waitotara Rivers. Wakefield (1845 I:243) wrote of the inhabitants of the Wanganui River that none "lived permanently near the sea-side ... These villages near the sea were only used during this season, when the fish abound and the constant fine weather allows the almost daily exit of the canoes. At the end of the summer they return up the river with large stores of dried fish". Near the mouth of the Waitotara River Wakefield (1845 I:252) encountered "a deserted fishing village, as the

racks and fish-bones sufficiently described". To date survey work has produced little archaeological evidence for summer fishing at the Whangaehu River mouth, or any of the neighbouring river mouths, and it is doubtful whether any could reasonably be expected from survey alone.

Other foods are also noted in Wakefield's account. These include lampreys, eels, parrots, tuis, pigeons, ducks and karaka berries. It is reasonable to assume that all these foods would have been available to the inhabitants of the Whangaehu and Mangawhero. Certainly Taylor's 1843 map of the Mangawhero shows the location of a number of "pa tuna" (eel or lamprey weirs). An 1868 plan of the Kaikai-Ohakune Block (ML 2975) shows the location of two "patuna" on the Mangawhero near the confluence with the Whangaehu.

Another work of Taylor's underlines the importance of foods obtained from the forests. In an entry in his Journal dated 3 November 1852 Taylor reports coming upon a place in the Mangawhero River valley where, "several comfortable sheds (had been) erected. These may be called hunting lodges. Near each of them the Natives have a small potatoe cultivation to supply them with food, when they come here for the hunting season. These sheds contain the usual native furniture, a basket filled with calabashes to hold water and the various implements used in hunting, viz. an eel basket, a bundle of snares for birds, and under the trees a long spear to spear birds with and near most of the rimu and kihikaitea trees on whose fruit the pigeons feed are ladders fixed to enable them to ascend after their game ... Near the sheds I noticed a great number of ingeniously constructed traps for rats set along the path".

The Whangaehu River valley has no known sources of good quality stone. Three small pieces of obsidian found during the 1981 site survey have been sourced to central North Island sources (McFadgen, pers.comm.).

#### Historical documentation of earlier occupation

Taylor marked on his 1843 maps four "old pa". They are "Rangiaua", "Aromanga", "Otuwangai" and "Kohurupo". A number of other places are named, including "Paikowai". In 1862 G.F. Allen, a surveyor, was working in the area and noted that there was an "old fortification" on Paikowhai Hill (Field Book 171). (Paikowai pa is recorded as S22/61). Allen also recorded the earthworks of Kohurupo pa (S22/21) and the adjacent pit sites.

Rangiaua pa is recorded as S22/112. Cadastrals identify the land as "Rangiahua Burial Ground". The Site Record form



(G.E. and D.E. Nevin) lists the site type as "Burial Ground" but adds that the site was "probably a pa" and that "bulldozing has filled in a ditch/bank". This is confirmed by a 1942 air photo (RN 378/58) which shows the defences.

Aromanga pa is recorded as S22/121. It is situated on an isolated ridge between the river flats and the surrounding country.

Otuwangi pa is recorded as S22/8. ML 573 shows a number of possible names for this site including "Otuangai", presumably a variant spelling of Taylor's Otuwangi. In 1961 a bulldozer uncovered burials on the pa (Site Record Form by A.J. Bannister of the Wanganui Archaeological group). The burials appear to date from the historical period.

Kohuropo pa is recorded as S22/21. The identification of this pa as Kohuropo is of some interest as the site is mentioned in oral tradition as associated with fighting between Ngati Apa and the Whanganui sometime around 1830. Downes (1915:156) has a photo of a pit on S22/71 (Fig. 6) which is labelled Kohuropo pa. Downes appears to have simply picked a pa known to him that was in the right general area.

#### Land alienation

On 26 May 1848 McLean completed the purchase of Wanganui. The area had first been "purchased" in 1840 by the New Zealand Company but this had resulted in a long dispute over ownership which was one of the more important causes of fighting that broke out at Wanganui in 1847. McLean's purchase included most of the land between the Wanganui and the Whangaehu.

On 15 May 1849 McLean completed the purchase of the Rangitikei Block. McLean noted that the land between the Turakina and the Whangaehu had been retained by Ngati Apa as a Native Reserve. McLean's report lists payments to Aperahama Tipae, "the Chief of Whangaehu", and people belonging to a number of Whangaehu hapu (New Munster Gazette, 1849 Vol.2 No.16:82).

By the 1880s, however, large areas of the land between the Whangaehu and the Turakina had passed out of Maori hands. Kauangaroa gradually became the focus of Maori settlement in the river valley, as it still is today.

The story would not be complete without a passing mention of nearby Ratana Pa. Tahupotiki Wiremu Ratana was born in 1876 at what was to become Ratana Pa. In the early 1920s this small settlement became the focus of the Ratana Movement (Raureti, 1978).

## Conclusion

A river valley provides a limited, convenient and clearly defined unit within which data can be collected, organised and analysed. The Whangaehu data is still too fragmentary, however, for more than a preliminary review. The documentation of nineteenth century population size and settlement and subsistence patterns provides a valuable starting point from which to look back to the late prehistoric period. In the early 1840s the population of the Whangaehu and Mangawhero River valleys appears to have been somewhere between 150 and 200. Subsequently, with the movement of people out of the Mangawhero, the population dropped. The population remained at that level into the 1870s and 1880s. Given these figures, a late prehistoric population of two or three hundred, if that, is suggested.

The historical evidence does underline the paucity of data relating to the prehistoric period, and the problems of interpreting the archaeological remains. Documentary evidence suggests that the Mangawhero River valley was far more important than the cursory archaeological surveys to date had indicated. The role of the pa in the prehistoric settlement pattern in this area remains obscure. By the 1840s pa sited on strong natural positions and defended by earthwork were no longer occupied. It is possible that pa had always been occupied mostly in times of threat and that there were other settlements like Paetarata, Otairi and Waiarakeke which were occupied when the times were more settled. Such settlements are essentially invisible to archaeological surveys.

## Acknowledgements

Karl Gillies, Kevin Jones and Andrzej Nowakowski assisted with the 1983 excavations. Mr Don Wilkie has taken me to sites and assisted in other ways too numerous to list.

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### Abbreviations:

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| M.N.     | New Munster archives, National Archives, Wellington.       |

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