

The Archaeology of the New Zealand Wars

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The nineteenth century New Zealand Wars were crucial in transforming New Zealand from a predominantly Maori country to a largely Pakeha nation in which British law and government prevailed. The various campaigns of the wars have left a rich archaeological landscape which has much to say on the conduct and course of the struggle. This paper is an expanded version of an introduction to the subject given at the ASHA conference, Melbourne, 1991. The author is Archaeologist at the Auckland Institute and Museum.

The campaigns of the New Zealand Wars between Maori and Pakeha took place in various North Island districts between the mid 1840s and early 1880s.¹ The campaigns were crucial in transforming New Zealand from a predominantly Maori country with a handful of European settlements scattered around the coasts of the two main islands, to a nation in which Pakeha greatly outnumbered Maori and British law and government prevailed throughout.

Among the more important campaigns were those of the Bay of Islands 1845-1846, Wellington 1846, Wanganui 1847, Taranaki 1860-1861 and 1863-1866, Waikato 1863-1864, the Bay of Plenty 1864 and again in 1867, the East Coast 1865, Patea (south Taranaki) 1865-1866 and 1868-1869, and Urewera/Taupo 1868-1872 (see Figure 1). In all these districts are the archaeological remains of fortifications which date from the wars. In some the campaigns have left an enormously rich archaeological landscape which has much to tell of the course of the campaigns, of changing methods of waging war adopted by the adversaries, and of the reasons for ultimate success and failure.

The first European fortification in New Zealand was a seven foot (2 metres) high stockade thrown up in 1801 on the banks of the Waihou River (Thames) to defend a timber cutting gang put ashore from the *Royal Admiral*.² British troops first landed and clashed with Maori in 1834 when a detachment of the 50th Regiment was despatched from Sydney on board HMS *Alligator* to rescue survivors of the barque *Harriet* shipwrecked on the coast of Taranaki.³ Six years later the Treaty of Waitangi was signed, by which British government was established in New Zealand. With William Hobson, the first governor, came two companies of the 80th Regiment and one of the 96th.⁴

THE COURSE OF THE NEW ZEALAND WARS

It was not long before Maori and European came into conflict over the issue of land. In 1843 the so-called 'Wairau Massacre' took place when an armed survey party from Nelson clashed with Ngati Toa in the Wairau valley. A number of prominent settlers were killed, leading to great alarm in the European settlements scattered about Cook Strait.⁵

At the French settlement of Akaroa on Banks Peninsula three blockhouses in the so-called 'New England' style (see below) were erected, to be strengthened two years later following the sacking of Kororareka in the Bay of Islands.⁶ At Nelson the settlers' response included

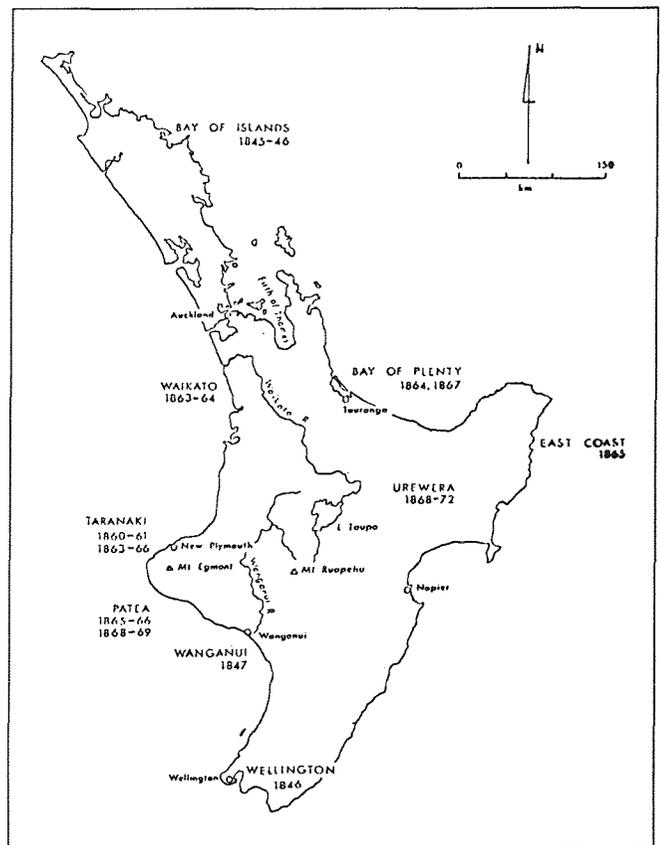


Fig. 1: Map of North Island showing the location of major campaigns of the New Zealand Wars.

construction of a massive earthwork fortification on Church Hill known as Fort Arthur. Within the earthworks a stockade provided a second strong defensive line.⁷

The Northern War

The first major conflict between British troops and Maori took place in the Bay of Islands district in 1845-1846. Here was developed a Maori strategy which was used to considerable effect throughout the more extensive campaigns of the 1860s. Very sophisticated earthwork and stockade fortifications, *pa*, were constructed to invite attack. The aim was to inflict loss on the attacking force from a well protected position. A brief description of *pa* is given in the section below on Maori fortifications.

The major engagements of the Bay of Islands campaign, or 'Northern War', were the sacking of Kororareka (Russell) by Nga Puhī in March 1845 and subsequent attacks on Maori fortifications at Te Kahika, Ohaeawai and Ruapekapeka. The location of the first of these *pa*, in farmland near Lake Omapere, was for long subject of debate. Only recently Challis has shown clearly its exact location by that combination of field observation and documentary research which is the particular strength of archaeology.⁸

Ohaeawai and Ruapekapeka were two of the outstanding Maori fortifications of the New Zealand Wars (Figure 2). Underground bunkers protected the garrison during artillery bombardment, while flax screens absorbed enemy fire and obscured any damage which was done to two stockade lines. Behind the massive inner stockade at Ohaeawai defenders left their artillery-proof shelters to use a traversed fighting trench during an assault on the *pa*, 1 July 1845.⁹ The 200 strong attacking force suffered 39 dead and 70 wounded.¹⁰ Some of the wounded were to die later. Estimates of Maori dead range from one to ten.¹¹

Wellington and Wanganui campaigns

The Wellington and Wanganui campaigns of 1846 and 1847 were comparatively small scale affairs.¹² In the Wellington campaign small stockades were scattered through the bush to serve as refuges for isolated European farming districts and as way stations along the Porirua Road.¹³ On the shores of Porirua Harbour was constructed an unusual two-storey stone fortification measuring 13 by 18 metres, with flanking towers at two opposite angles.¹⁴ The Paremata Barracks survive as a ruin at the corner of a recreation reserve in what is now an outer suburb of Wellington.

Perhaps the most remarkable European fortification of the 1840s, and indeed the whole of the New Zealand Wars, was the Albert Barracks in Auckland. A loop-holed stone wall 3-3.5 metres high enclosed an area of 23 acres (9.3 ha). The fortification was completely flanked and accommodated a large body of men as well as a parade ground, magazine, stores and other buildings. A short length of wall has survived in the present University of Auckland grounds (Figure 3).

First Taranaki War

The 1860s saw the most prolonged and severe fighting of the New Zealand Wars. It was also the crucial decade which tipped the balance of power from Maori to Pakeha. The extension of military control was accompanied by the confiscation of vast areas of land for settlement by Pakeha farmers. A large number of the many European military fortifications were thrown up not during active campaigning at all but to secure the farming frontier for Pakeha settlement.

On the European side the First Taranaki War (1860-1861) was comparatively limited in its objectives. The aim was to defeat the Te Atiawa and other Taranaki tribes on the field of battle in order to secure approximately 700 acres of disputed land at the mouth of the Waitara River, and of course encourage more land selling by the Maori. But the enemy would not be defeated and the campaign settled down to a war of attrition with none of the fundamental differences resolved.¹⁵

The first Taranaki War saw the first New Zealand use of battlefield fortifications by the British army. At Waireka, south of New Plymouth a 60 metre square earthwork redoubt of classic style was thrown up in one day under enemy fire (Figure 4).¹⁶ Skirmishers were sent

out to protect the work parties. In early 1861 a series of eight redoubts protected troops attacking Maori fortifications on the left bank of the Waitara River (see Figure 5). Among these fortifications, Number 3 Redoubt was attacked by a determined Maori force which was only beaten off after bloody work in the surrounding defensive ditch.¹⁷ It was one of only a very few determined assaults on European fortifications carried out during the various campaigns.

The Waitara redoubts protected a sap or attacking trench which was dug towards the centre of the Maori positions. This method of attack was designed to prevent the losses that had occurred at Ohaeawai and in June 1860 at Puketakauere, a *pa* near the military base on disputed land at Waitara. But it was slow work, taking 2,000 men almost three months to advance only 5 km, albeit without serious loss. The redoubts and sap can still be traced today despite more than a century of cultivation of the rich farmland. A short length of sap survives in the Pukerangiora Historic Reserve (Figure 6).

Maori fortifications also were numerous in the war of 1860-1861. At Puketakauere there were two strongpoints and many rifle pits hidden in the high fern. The commanding officer at Waitara had not learned the lesson of Ohaeawai and lost more than 30 dead and as many wounded despite a preliminary bombardment of the seemingly flimsy Maori positions. Nonetheless there was success for the Pakeha in November 1860 at Mahoetahi between Waitara and New Plymouth. Here a Ngati Haua and Waikato force was caught in an uncompleted fortification and driven into a swamp at the rear, suffering severe losses. Parts of Puketakauere and Mahoetahi are protected in historic reserves.

Second Taranaki War

The Second Taranaki War lasted approximately three years. It began in the autumn of 1863 and concluded in early 1866 with skirmishes in coastal districts about Cape Egmont. The opening was signalled by construction of two strong redoubts south of New Plymouth by a Royal Engineer detachment and troops of the 57th Regiment. Fighting began in early May.¹⁸

In succeeding years British troops and local European forces built more than 30 fortifications of various kinds in north Taranaki. Some were for campaigning troops in countryside controlled by Maori, others secured roads or gave protection to farming districts. Almost all are marked in the landscape by remains of the defensive works.¹⁹

The Waikato War

The decisive campaign of the New Zealand Wars was fought in the Waikato from July 1863 to April 1864.²⁰ Waikato tribes were at the heart of Maori resistance to Pakeha expansion. The invasion of their district was prepared well in advance and saw the concentration of as many as 10,000 European troops and militia.

Prior to the invasion troops were employed building a road south of Auckland towards the Waikato. Near the boundary of Maori land the 100 yard (91.5 m) square Queen's Redoubt was thrown up to act as a forward base. Nearby a wooden stockade commanded the Waikato River landing.

Maori strategy was to bar the route inland by a series of fortifications through which the invading army would have to fight. At the rear of the invading force, communication lines were subject to ambush and raids by small bodies of Waikato and allied tribes. The European force countered the first by using vessels on the river to get behind the Maori fortifications and the second by a

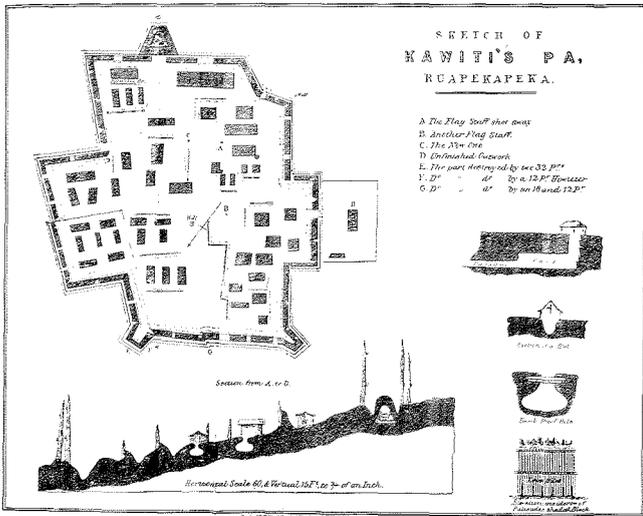


Fig. 2: Ruapekapeka. (Thomson 1859 II:127).

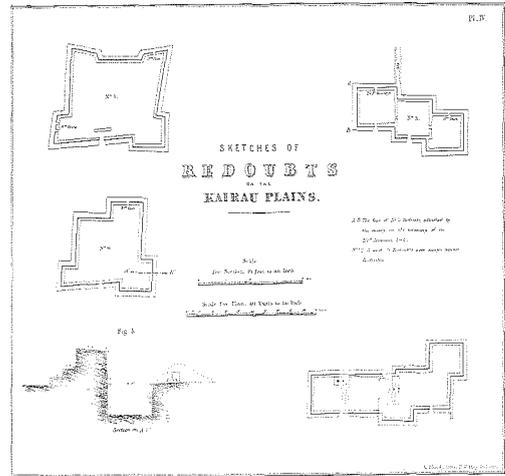


Fig. 5: Ground plans of redoubts connected with the early 1861 advance on Maori positions south of the Waitara River. Not shown are Nos. 2, 4, 5 and 8 redoubts which were square. Bottom left is a cross-section of the ditch and bank defences. (Mould 1863:Pl.4).

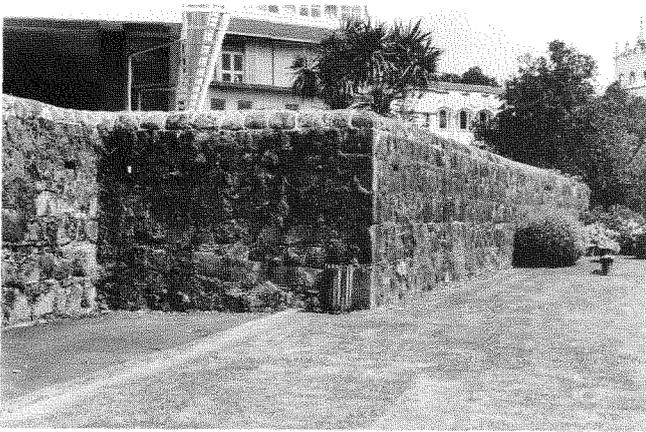


Fig. 3: The Albert Barracks wall, University of Auckland grounds.

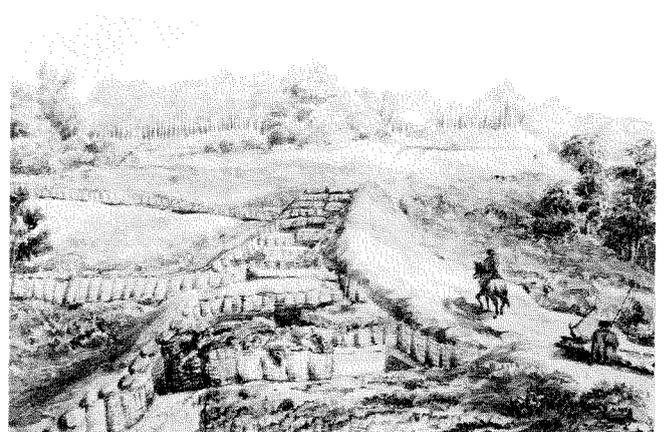


Fig. 6: General Pratt's sap at Te Arei (Pukerangiora) near Waitara, Taranaki, depicted a few days after the March 1861 ceasefire which ended the First Taranaki War. The traverses which prevented enfilading fire can be seen along with two demi-parallels to the left. Earth banks are supported by wicker gabions. In the background can be seen the palisaded Maori position. Artist F.H. Arden (Taranaki Museum).



Fig. 4: Waireka Redoubt, Taranaki, was thrown up on one day under enemy fire. It is 60m square with defensive bastions at two corners covering all four sides.



Fig. 7: Meremere Redoubt, Waikato, occupies a high point in the earlier Maori entrenchments at the site. (Photograph Kees Sprengers, Waikato Museum).

frontier line of fortifications which made Maori incursions difficult. All this was very costly in terms of men, most of whom were employed protecting rear communication lines from the security of stockade or earthwork fortifications.

The Maori defences at Meremere, Rangiriri and Paterangi were the largest and most complex fortifications of the New Zealand Wars. At Paterangi five strongpoints were joined by traversed rifle trenches. Other *pa* close by were smaller though similar in arrangement. General Cameron, showing that some lessons were learned since Ohaeawai and Puketakauere, marched his troops past at night so that the Maori garrisons were forced to pull back.

A series of forts protected the British advance up the Waikato and Waipa River valleys. Many took up positions formerly occupied by Maori fortifications. At Meremere a well preserved redoubt takes its unusual shape at least partly from the pre-existing earthworks (Figure 7). At Rangiriri, Te Wheoro's Redoubt occupies a high point on the earlier Waikato defensive line where it crossed high ground between the Waikato River and the swamps and open water to the east. Both these redoubts are now protected in historic reserves, as is the centre of the Waikato line at Rangiriri where fierce fighting took place.

Other British fortifications served a different purpose. In the 1840s a series of blockhouses across the Auckland isthmus was designed as a frontier line to protect the infant capital of New Zealand. In the early 1860s a defensive line was established from the Great South Road to the Wairoa estuary across the northern flank of the forested Hunua Ranges. Maori incursions beyond this line were controlled by means of fortified posts and intervening roads. In spring 1863 another frontier line was established with one end at Queen's Redoubt and the other at the Firth of Thames to exclude Maori forces altogether from the Hunua Ranges. The Esk, Surrey and Miranda redoubts were located to enable line of site signalling along the frontier.²¹ All three fortifications survive on private land as outstanding archaeological sites.

At the end of the Waikato campaign yet another frontier was established to mark a further phase in the expansion of the Auckland settlement. The 'confiscation line' beyond which Waikato and allied tribes withdrew into the King Country extended from the Waipa to Waikato Rivers. It was marked by a series of fortified posts which were held by a variety of forces, notably the Armed Constabulary, until the early 1880s. Outstanding is the Pirongia Redoubt (Figure 8) which is fully flanked in the so-called star form, developed to cover curtain walls which might be breached by enemy artillery.²² This was clearly overdoing things in the New Zealand context.

Tauranga Campaign

The 1864 Bay of Plenty campaign can be regarded as part of the Waikato War.²³ Tribes from Tauranga and further east were sending men to the struggle in the Waikato and it was to cut off this support that a European expeditionary force landed at Tauranga in January. Three months later on 29 April, 1864 was fought the Battle of Gate Pa in which two *pa* held by approximately 235 Ngai-te-Rangi and Ngati Koheriki defeated a very much larger British force.

Pukehinahina, or Gate Pa, in many respects was a typical Maori fortification (Figure 9). The interior was a maze of hidden passages, traversed rifle trenches and underground bunkers. The attack began with heavy artillery fire laid down by mortars, howitzers, naval cannon and Armstrong guns which created a breach in the

defences. Convinced that the garrison was in no condition to resist, the troops then rushed in. Once inside, however, they suffered severe losses in a maze of trenches and tunnels, now defended by the enemy up from deep bunkers in which they had sat out the bombardment. Thirtyfive soldiers and seamen were killed at the *pa* or died of wounds later and more than seventy were wounded. Gate Pa was situated within the present town of Tauranga; there are no clear visible remains.

Two months after Gate Pa British troops had their revenge at Te Ranga, 5 km south. Here the Maori force was caught in uncompleted entrenchments and suffered greatly. The exact location of this important site has received some attention from Bruce McFadgen who employed a magnetometer and resistivity meter to locate the main Maori rifle trench.²⁴ An important surviving site of the Tauranga campaign is the fully flanked Monmouth Redoubt close to the centre of the town. The apparently excellent condition of this earthwork owes much to well-meaning but unfortunate restoration carried out in recent years.

Patea Campaigns

General Cameron's advance north of Wanganui in 1865 was marked by the construction of a number of redoubts on each bank of the main river crossings, close to the sea from which supplies could be landed.²⁵ In all, eleven redoubts were thrown up of which six survived in reasonable order in 1968.²⁶ Among them are the complex and unusual Kakaramea Redoubt, also Patea Redoubt and Manawapou (Thacker's) Redoubt (Figure 10), both of standard bastioned form.²⁷

Pakeha farmers took up land in the wake of Cameron's advance. In 1868 and 1869, however, the remarkable military leader Titokowaru drove soldiers and settlers back almost to Wanganui before support fell away and his campaign came to a halt.²⁸ Titokowaru employed the old Maori tactic of erecting *pa* and inviting attack. In the first major engagement, however, at Turuturumokai near Hawera, 12 July 1868, it was a small Pakeha redoubt that was attacked. Of the 27 man garrison, ten were killed and six wounded in the dawn assault, survivors fleeing to nearby Waihi Redoubt or taking refuge in the two small bastions until relief arrived. A problem in the defence of the fortification was that higher ground 150 metres south enabled Maori marksmen to fire directly into the northwest bastion.²⁹

In spring Pakeha forces were badly beaten in attacks on Te Ngutu-o-te-Manu, a *pa* in a forest clearing near the lower slopes of Mt Taranaki, and at Moturoa near Patea. While Titokowaru's tactic was to build *pa* to invite attack, his strategy was to push closer and closer to Wanganui along the bush edge, forcing the enemy to retire or be outflanked. His last and most formidable *pa*, Tauranga-ika, was abandoned without a fight.³⁰

Archaeological field surveys are needed to locate and map the remains of Maori settlements and *pa* and the European fortifications and other sites of the first and second Patea campaigns. There is an interesting group of small militia posts in the Rangitikei and Manawatu districts dating from Titokowaru's campaign which I was shown some years ago; the basic survey work has been done, but like much local knowledge it is yet to be published. Cameron's Blockhouse, at Marangai near Wanganui, also dates from this period (Figure 11).³¹

The Te Kooti Campaign

By the end of the 1860s the regiments were leaving New Zealand and campaigning was taken over by local militia and Armed Constabulary forces. At Ngatapa, inland of

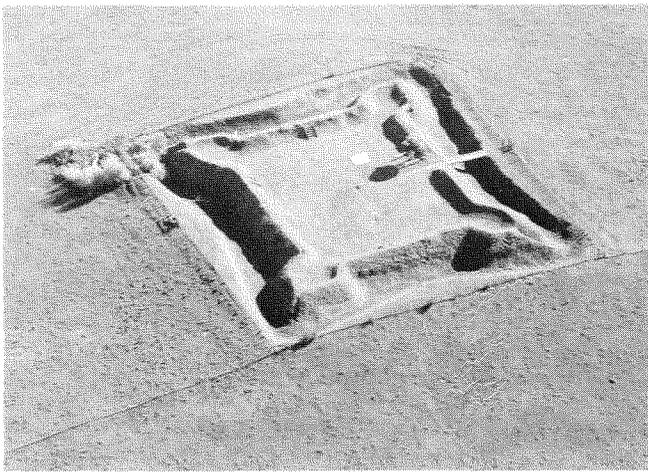


Fig. 8: Pirongia Redoubt, Waikato. The classic star shaped military redoubt is most unusual in New Zealand. (Photograph Kees Sprengers, Waikato Museum).

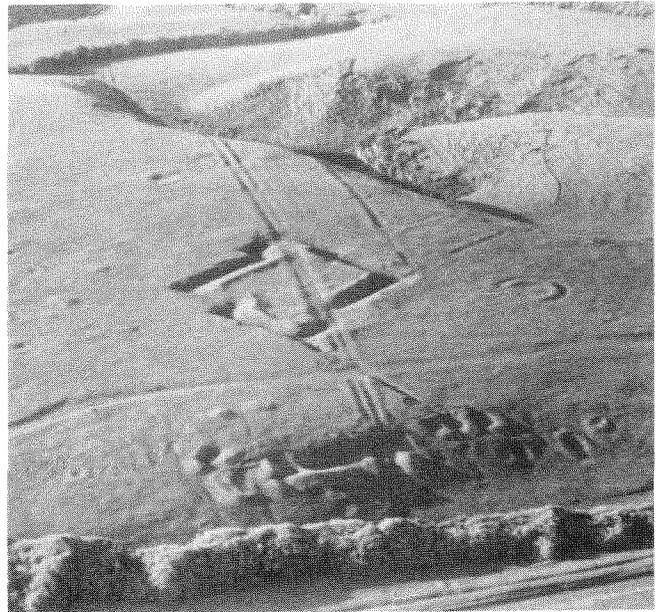


Fig. 10: Manawapou (Thacker's) Redoubt, south Taranaki. In front are two lines of semi-subterranean accommodation huts dug into the hillside, with a trench leading to the near bastion of the redoubt giving protected access in case of attack. Between the redoubt and the huts the old military road can be seen extending across the picture. The modern road is below the boxthorn hedge in the foreground. A double line running through the fortification marks a later hedge and ditch fence.

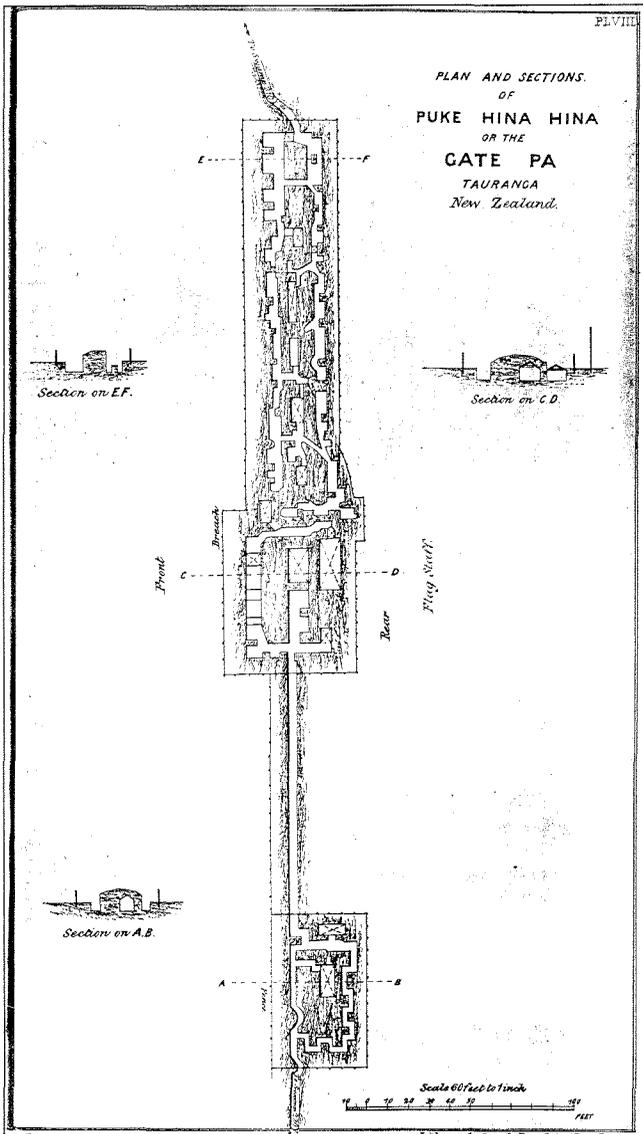


Fig. 9: Plan and cross-sections of Gate Pa, Tauranga. (Mould 1869:Pl.8).

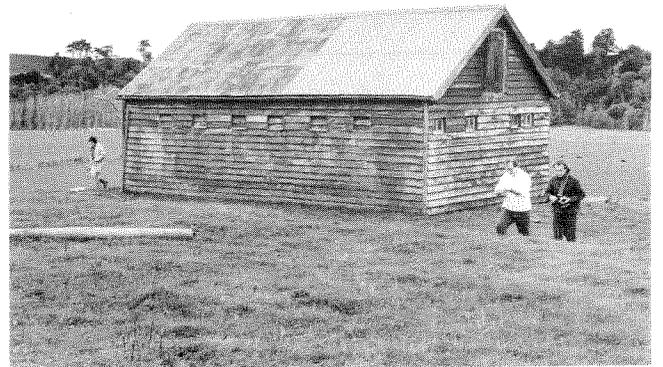


Fig. 11: Cameron's Blockhouse, Marangai, Wanganui: a Pakeha response to Titokowaru's campaign 1868-1869.

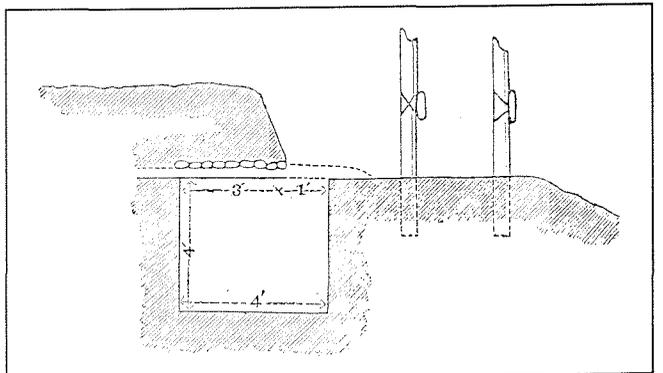


Fig. 12: Cross-section of a rifle pit. (Pasley 1863:587).

Gisborne, in early 1869 there was the siege of a *pa* located high on a precipitous hill above the plain.³² Fortification defences and some siege works are still visible. The campaign then settled into guerilla warfare on the part of the Maori force under Te Kooti. The Pakeha strategy was to confine Te Kooti to the mountainous Urewera country by means of a line of posts along the Napier-Taupo road and in the Rangitaiki River valley at the western edge of the mountains. The archaeology of the first of these has been explored by John Mitchell,³³ while sites of the Rangitaiki valley have been studied by Wynne Spring-Rice,³⁴ both projects carried out as part of MA research undertaken at Auckland University.

When Te Kooti broke out of the Urewera he made for open country south of Lake Taupo which was close to potential support in the King Country. Here he constructed two complementary positions in the spring of 1869. The major fortification, at the bush edge, took the form of a rectangular redoubt with flanking defence at two corners. Nearby on lower ground was a more typical complex earthwork. Both fortifications were badly sited. Te Kooti's men were quickly driven out and escaped into the nearby bush.³⁵

At Te Porere there has been some restoration of the light pumice earthworks and the site now stands as an outstanding monument to the campaign. Nearby at Lake Rotoaira, McDonnell's Armed Constabulary redoubt was reconstructed in the 1960s but has since been returned to a stable contour.³⁶

Parihaka Campaign

The Parihaka Campaign of the early 1880s was a military operation like the earlier phases of the war.³⁷ There was no fighting because of the peaceful resistance philosophy of the Maori leaders Te Whiti and Tohu. Pakeha forces nonetheless erected stockades, redoubts and blockhouses in their advance, many of which can be traced today on the ground.

THE SITES

The largest and most important group of sites relating to the wars are the fortifications and military sites of various kinds. Other sites are roads, shipping remains, mission stations, farmsteads and other settlements, Maori and Pakeha, which were contemporary with the campaigns in the districts over which they were fought. The latter deserve attention and doubtless will be addressed when time and resources permit; the present brief descriptions deal with military sites only.

Maori Fortifications

Maori fortifications (*pa*) were generally larger and almost invariably more complex than the European. Their form was flexible, depending not on the Royal Engineers' manual but on the shape of the land and the particular purpose for which a *pa* was built. Defences were stronger than those of European fortifications partly because Maori works, and not European, had to withstand artillery fire.

The Maori had been building *pa* in New Zealand for many hundreds of years. Before the arrival of the musket they were designed to protect whole communities by means of difficult approaches and the engineered advantage given to defenders in any hand-to-hand fighting that might take place. Thus *pa* crowned precipitous ridges and hill-tops or off-shore islets. Where there was little natural advantage immense earthworks supplemented by multiple stockade lines were built to defend often small living spaces.

In the early nineteenth century Maori fortification design had to adapt to a new weapon which could kill at a distance. It was no longer an advantage to occupy an elevated but exposed position, no matter how precipitous the approaches. Musket *pa* usually occupied low-lying situations where there was no obscured ground nearby and where level or gently rising approaches offered a good field of fire for the garrison. In the *pa* itself there were now traversed firing trenches – that is, trenches with regular barriers across them to prevent attackers firing down their length. Projecting bastions allowed defenders to cover nearby sides with flanking fire. Garrisons no longer shouted defiance from elevated platforms but were nearly invisible with only the barrels of muskets or *tupara* (two-barrel, i.e. shotguns) visible over low earth parapets.³⁸

For the wars against the European, musket *pa* were further developed to withstand artillery. Bastions and traversed rifle pits remained important but these were now part of a yet more complex fortification. Within the fortification pits or bunkers roofed with timber, earth and fern protected the garrison during a bombardment. Short trenches or tunnels gave access to firing positions which could be occupied within seconds when the assault came.

Pa of the New Zealand Wars commonly employed several lines of defence. At the outside, bunches of flax were hung as a screen to serve the double purpose of absorbing enemy fire and obscuring damage that might be done to the more substantial defences behind. The next line was a stockade supported by regular posts, slightly elevated so that the garrison could fire out beneath it. Behind was a heavier stockade through which the defenders poked their guns at ground level from their fighting trench directly behind (Figure 12). Some *pa* were only the central position in a fortification system which included hidden rifle pits outside, from which the enemy could be caught by surprise. In Taranaki the artillery bombardment of two visible positions, Puketakauere and Onukukaitara, passed harmlessly over defenders waiting in rifle pits in the tall fern.

Maori fortifications could comprise single quite small works such as Ohaeawai, or the Taranaki *pa* of Te Kohia³⁹ near Waitara (the settlers' L-*pa*; Figure 13) and Porou⁴⁰ which was attacked and taken in June 1863 at the beginning of the Second Taranaki War. Alternatively they could consist of more than one *pa* sited to provide mutual support. Examples are the three *pa*, Orongomaihangī, Pukekakariki and Mataiaio, on the Kaihihi River south of New Plymouth, which were attacked in October 1860,⁴¹ and Te Tapiri and Okupu thrown up on adjacent hilltops at the western edge of the Urewera Ranges in 1865.⁴²

In the Waikato very large *pa* such as Meremere, Rangiriri and Paterangi had multiple strongpoints connected by lines of trenches. Here the strongpoints provided mutual support. The positions faced one way and so were designed to prevent an enemy advance; thus they had a different purpose to *pa* such as Ohaeawai which were designed to invite attack and not to control enemy incursions.

Pakeha Fortifications

Pakeha fortifications were of three basic forms: redoubts, stockades and blockhouses. Their roles varied from battlefield works to the provision of security for farmers at the frontier of Pakeha settlement. Unlike *pa* there was no intention that they should be attacked. The measure of their success is not that they withstood assault but that no assault was made.

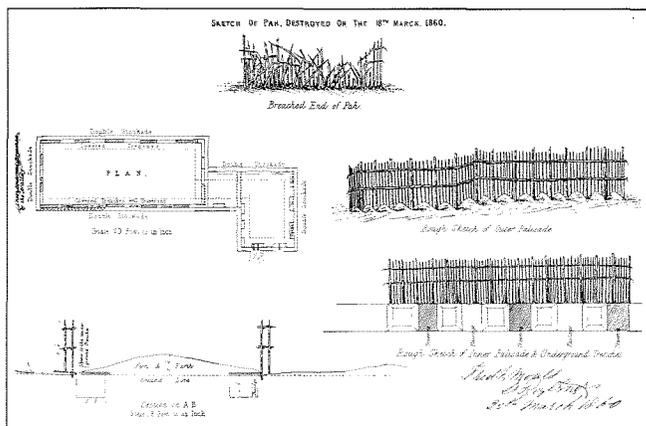


Fig. 13: Te Kohia, or L-pa. (British Parliamentary Papers 1861 [2798]; Gold to Browne, 19 March 1860).

Redoubts were earthwork fortifications defended by a ditch, generally dug to 6 foot (183 cm) depth, with the spoil thrown up to form an 8 foot (244 cm) high parapet on the interior side. Thus the combined ditch and bank would present a 14 foot (427 cm) wall to an attacker. Behind the parapet a raised tread provided a firing platform (Figure 14).

Redoubts could be thrown up quickly in battlefield situations where they might be used only for a few days or weeks. Or they could serve a long term security role, often being altered or enlarged to suit changing circumstances. In the First Taranaki War No 4 Redoubt was only 13½ yards (12.3m) square enclosing 152m², and No 8 Redoubt was 16 yards (14.6 metres) square.⁴³ Even smaller earthwork redoubts, as little as 9m in diameter, acted as guard posts for otherwise undefended camps in the 1880-1881 Parihaka Campaign.⁴⁴ At the other end of the scale was Queen's Redoubt, Pokeno, 91.5m square and enclosing some 8360m² of ground.⁴⁵

Redoubts took a variety of forms. A classical shape comprised a rectangular ground plan with bastions at two opposite corners covering all four sides (see Figures 4 and 10). A variation, the so-called 'New Zealand Redoubt'⁴⁶ employed bastions at all four corners, each covering just one side (Figure 15). Others could be simple unflanked squares, five-sided redoubts or works of a very wide variety of unique ground plans.

Some redoubts were enlarged after their initial establishment. A Taranaki example is provided by Camp Waitara which was almost doubled in size four months after troops first occupied the position.⁴⁷ Alternatively they could be reduced in size, as at Warea, Taranaki, where replacement of imperial troops by a small local force saw most of the original earthworks thrown down and one remaining angle providing the basis of a smaller fortification.⁴⁸

Stockades were made of whole or split logs set against each other to a height of 10-12 feet (3.05-3.66 metres). Defenders did not fire over the top as in redoubts but through narrow loop-holes in the stockade timber. Within the stockade, barrack and guard buildings sometimes enclosed a small central yard or there would be tents for accommodation.

Stockades could be of formal plan, sometimes even bastioned as redoubts, or they could follow the shape of available ground on a hilltop or spur. The Omata Stockade (Figure 16), Taranaki, is an example of the former.⁴⁹ Measuring 19 x 12.5 metres with two 2.3 x 3.2 metre bastions at opposite corners to cover all four sides, the total defended area was 250m². The fortification and

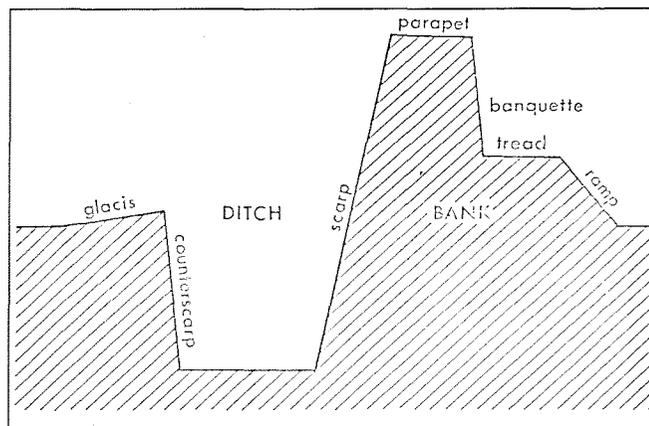


Fig. 14: Cross-section of redoubt defences.

internal buildings took six months to complete and were occupied for as many years, with a garrison as high as 80 early in the Second Taranaki War. Bluff Stockade on the Waikato River near Pokeno is an example of the more amorphous form. Typically it is larger than the rectangular works and to an extent relies on naturally difficult approaches for its defence.

The term 'blockhouse' was used during the New Zealand Wars to refer to barrack buildings within or attached to redoubts or stockades, or to independently defensible fortified buildings. Among the former many were prefabricated in kauri at Onehunga and shipped from there to the various military frontiers. A surviving example at Oakura in Taranaki is only slightly altered from the original (Figure 17).⁵⁰ Blockhouses took time to build out of milled timber. Thus, they were not used in tactical or short term situations but where a long term strategic or garrison role was envisaged. They were commonly used when campaigning troops had moved on and a limited military presence was needed to reassure Pakeha settlers who were moving onto confiscated land. Small garrisons could be supplemented by local soldier settlers when needed.

Blockhouses could take several forms. The so-called 'New England' style was of two-storeys, the upper overhanging the lower. Both levels were loop-holed for defence, sometimes with hatches in the overhanging floor to prevent an enemy getting in against the wall beneath. Most such blockhouses had additional defence in the form of an encircling ditch or bank. Single-storey blockhouses were of rectangular plan, again loop-holed for defence and with the walls filled with sand or gravel. A surviving example at Marangai near Wanganui has recently undergone extensive renovation (Figure 11).

FORTIFICATIONS AND FRONTIERS

In early campaigns Pakeha defensive works were largely of a tactical (battlefield) nature or were designed to defend lines of communication. Only in the First Taranaki War when the town of New Plymouth was entrenched and with a ring of blockhouses beyond,⁵¹ and in the 1840s in Auckland when Fencible settlements guarded the southern approaches, was there a military frontier established. From the Waikato War and Second Taranaki War, both of which began in 1863, European fortifications were increasingly concerned with the development and advance of the settlers' frontier.

The reason for this was the passage in late 1863 of the New Zealand Settlements Act which allowed confiscation of large tracts of Maori land from disaffected tribes.

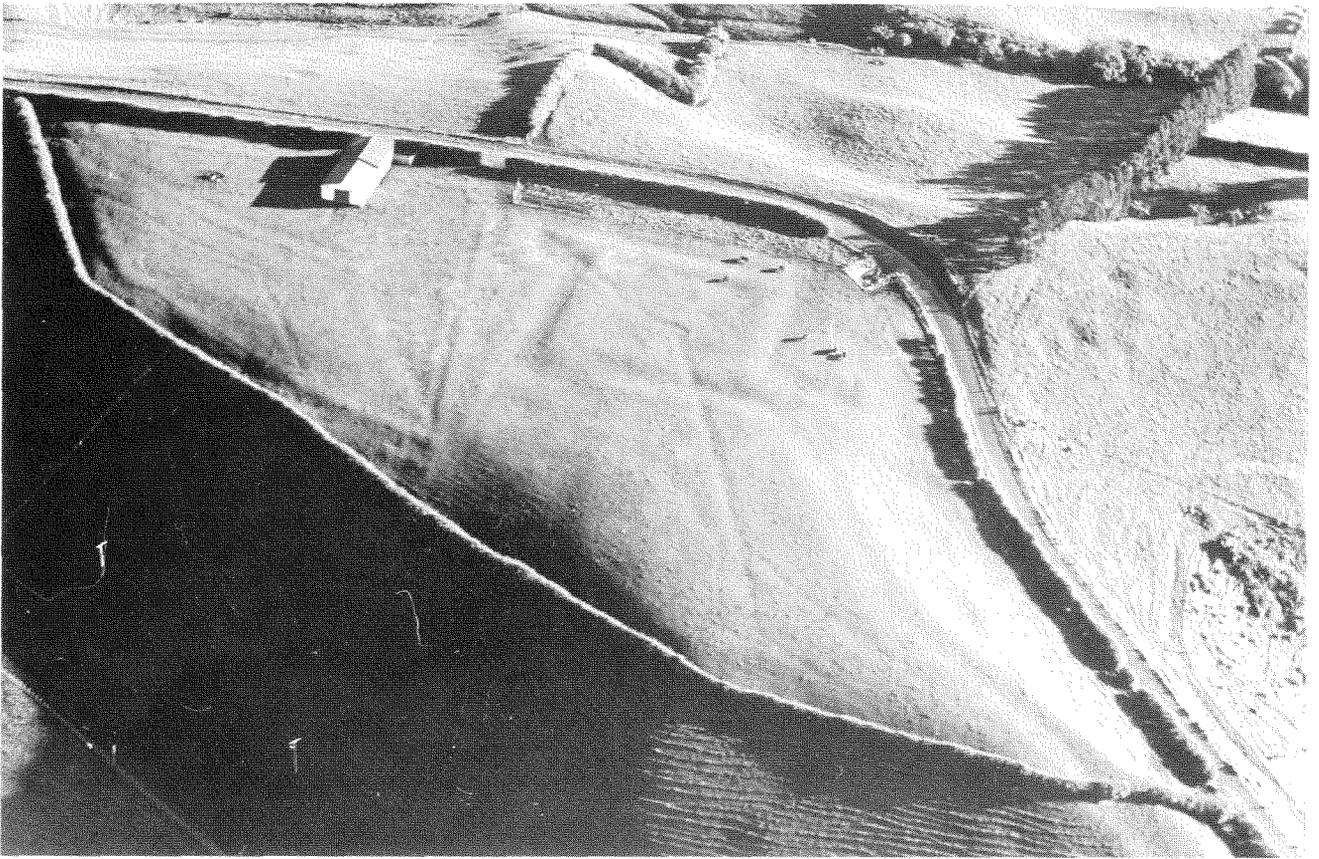


Fig. 15: The New Zealand style Mataitawa Redoubt, Taranaki. The military road can be seen running from bottom right up to the redoubt. Other marks in the paddock are from ploughing.

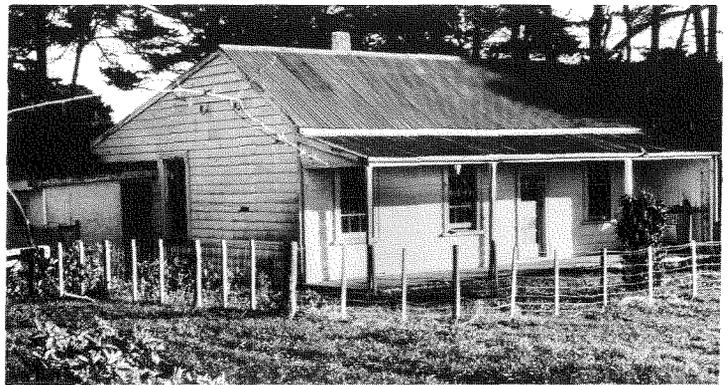
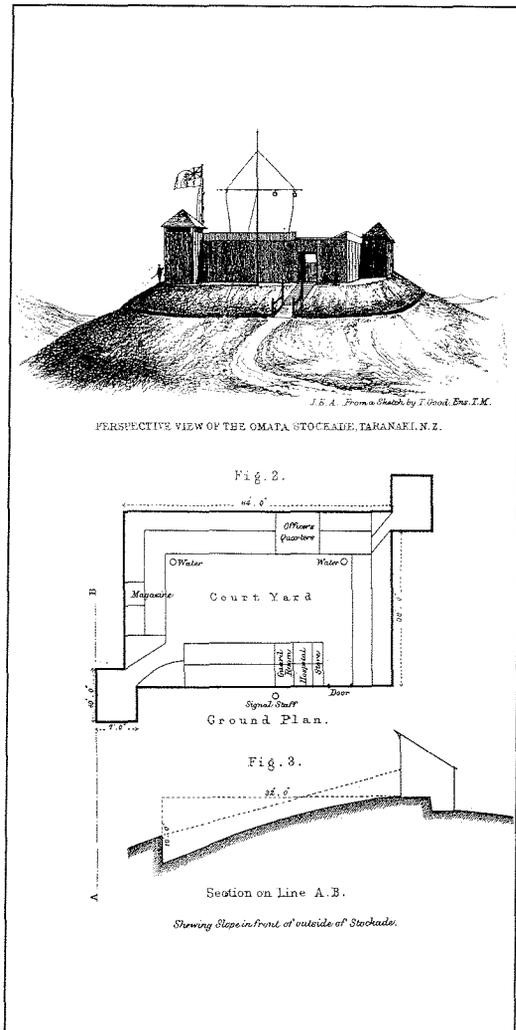


Fig. 17. At Oakura, Taranaki, an 1860s blockhouse has been moved out of nearby Pahitere Redoubt for use as a farm cottage.

Fig. 16: (at left) The Omata Stockade, Taranaki, showing ground plan and defences. (Alexander 1863:Fig.1).

Thus military objectives were brought into line with Pakeha settlers' political ambitions. The war would be won by taking the land and denying it, the best of it anyway, to the Maori. We have seen how the southern frontier of the Auckland settlement was pushed south to the King Country 'confiscation line' by the end of the Waikato campaign. In Taranaki and in other districts as well the farming frontier followed the soldiers.

It is useful to think of many of the major campaigns as being concerned essentially with the expansion of the coastal towns and farming settlements of the 1840s and 1850s. Thus the Waikato War opened up the hinterland of Auckland for settlement, just as the Patea campaigns pushed forward Wanganui's farming frontier. No less than four campaigns resulted in satisfaction of the New Plymouth settlers' ambition for land; these were the First Taranaki War (1860-1861), Second Taranaki War (1863-1866), White Cliffs Scare (1869) and Parihaka Campaign (1880-1881). While the first was indecisive, the New Zealand *Settlements Act* gave purpose to the other three which resulted in Pakeha farms being established on Maori land throughout Taranaki.

European success is reflected in the scatter of military posts which secured the farming frontier. Military frontiers could be of linear, fixed-line form with fortifications along the line of control, or organised in depth with a network of posts scattered among the developing farms of soldier-settlers. Or, indeed, they could be a mix of the two with a forward fixed-line frontier and a network of posts behind. All three arrangements are to be found in New Zealand in various regions at different times during the 1860s and later. Maori too employed fixed-line frontiers, such as in defence of the Waikato-Waipā basin where the fortifications at Meremere, Rangiriri and Paterangi were designed to be held at those points. On the whole, however, the Maori controlled land by means of rapid movement and guerilla warfare on what was after all home ground. Maori fortifications were generally for battlefield advantage and seldom if ever had a purely garrison role.

ARCHAEOLOGICAL RESEARCH

There is a long history of study of archaeological sites of the New Zealand Wars. As early as 1921 Elsdon Best, the renowned historian of traditional Maori life, published a ground breaking account of 'Old redoubts, blockhouses, and stockades of the Wellington district' in the *Transactions of the New Zealand Institute*.⁵² Most sites relate to the campaign of the 1840s, with one interesting blockhouse still surviving in Upper Hutt in 1991 dating from unrest of the early 1860s.

In the early 1920s was published James Cowan's remarkable two volume work *The New Zealand Wars*.⁵³ Cowan visited many of the sites he describes and gives valuable descriptions only half a century after they were abandoned. His work is still unmatched as a general account of the wars.

There was then a gap of several decades before interest in war sites was again translated into fieldwork and publication. In the early 1960s the National (now New Zealand) Historic Places Trust published booklets on the Paremata Barracks,⁵⁴ and on Te Porere, the Te Kooti gunfighter *pa* south of Lake Taupo.⁵⁵ At the end of the 1960s more archaeological work was undertaken south of Lake Taupo in the course of the Tongariro power project. Trevor Hosking excavated at McDonnell's Redoubt, and at two nearby gunfighter positions presumed also to date from the 1869 Te Kooti campaign.⁵⁶

Other contributions of this period include descriptions of historic redoubts of the Te Awamutu district by

Swarbrick,⁵⁷ Howick Stockade by McKenzie,⁵⁸ Esk Redoubt by Auckland University archaeologist Peter Bellwood⁵⁹ and Manawapou Redoubt, south Taranaki, by Alastair Buist.⁶⁰ Later there were short articles on European fortifications of the Omata district, Taranaki,⁶¹ and south Auckland.⁶² The Te Tapiri, Urewera, Maori gunfighter fortifications were described by David and Glenis Nevin,⁶³ and a similar earthwork at Moerangi near Tauranga by Kevin Jones.⁶⁴ A disagreement on the location of an historically important fortification at Turuturumokai, south Taranaki, shows how easily the lack of careful research can lead to very wrong conclusions.⁶⁵

It was not until the 1970s that 'establishment archaeology' of the universities and government departments began to focus on historic archaeology in general and the archaeology of the New Zealand Wars in particular. An early contribution was my own Ph.D thesis *The Archaeology of a Military Frontier: Taranaki, New Zealand, 1860-1881*, submitted in 1981.⁶⁶ Other university research followed including Wynne Spring-Rice, *The History and Archaeology of Fort Galatea, Bay of Plenty, New Zealand, 1869-1969*,⁶⁷ and John Mitchell, *The History and Archaeology of The Armed Constabulary Archaeological Sites along the Napier Taupo Road, 1869-1885*.⁶⁸ Outside the universities government agencies, notably the new Department of Conservation, sometimes have worked on war sites in the course of cultural resource management and mitigation work. An outstanding result so far has been the rediscovery of Fort Ligar in Auckland's central business district.⁶⁹

Notable artefact assemblages have been recovered by excavation at the Omata Stockade and Warea Redoubt, both in Taranaki,⁷⁰ and Fort Galatea, Bay of Plenty.⁷¹ From Fort Galatea a collection of tin wax vesta matchboxes has been described in a separate report.⁷² The two Taranaki sites gave up a wide range of material including glass bottles, stoneware, earthenware and porcelain, clay tobacco pipes, buttons, uniform pieces, footwear, coins, ammunition, tin cans, matchboxes, building materials, and miscellaneous iron, lead, copper and brass items. Such assemblages have a particular interest because of their documentation of military sites, but also a general usefulness for historical archaeology in that they came from sites of known and often short-lived occupation.

Despite the work of recent years much remains to be done. Many, possibly most, sites of the New Zealand Wars are yet to be adequately described, and the detailed research is still to be carried out on their particular histories. An example of the many gaps in our knowledge is given by publication of an aerial photograph of a New Zealand style redoubt in Hawkes Bay, clearly of European origin or inspiration, of which the history is quite unknown.⁷³ The archaeology of Hawkes Bay and East Coast war sites in general requires much work.

Maori sites in particular have suffered from lack of fieldwork. This is partly because they are less well documented, and partly also because the material culture of European sites is such a strong attraction for archaeologists. There were two sides in the New Zealand Wars – the archaeological history of the campaigns must take account of both.

NOTES

1. The outstanding general account of the wars is still Cowan 1922-1923. A pictorial coverage and basic data are presented by Ryan and Parham 1986. Important recent analyses include Dalton 1967 and Belich 1968.
2. Smith 1813.
3. Houston 1965:74-78.
4. Ryan & Parham 1982:2
5. Allan 1965:241-263.
6. Straubel 1957:80.
7. Allan 1965:268.
8. Challis 1990.
9. Descriptions of the Ohaeawai and Ruapekapeka fortifications and general accounts of the Northern War are given in Cowan 1922-23 I:6-84; Wards 1968:95-213 and Belich 1986:29-70.
10. Wards 1968:156.
11. Belich 1986:52.
12. See Cowan 1922-23 I:85-139.
13. Best 1921.
14. Burnett 1963.
15. An important analysis of the origins of this campaign is by Sinclair 1961. For an account of the conflict itself see Cowan 1922-23 I:150-214, and Belich 1986:73-116. For descriptions of the European fortifications see Prickett 1981 I:23-101.
16. See Prickett 1978:24-26.
17. See, for example, Cowan 1922-23 I:200-205.
18. The Second Taranaki War went on for so long that it is difficult to see it as one campaign. Cowan still gives the best account of the fighting but he misleadingly divides it into the Second Taranaki Campaign, 1922-23 I:215-224, and the Hauhau Wars, II:20-28. Hauhau, or Pai Marire, was a Maori religious movement which provided important leadership for the resistance struggle in the latter part of the 1860s.
19. All are described in Prickett 1981 I:101-223.
20. The outstanding account is by Belich 1986:119-200. See also Cowan 1922-23 I:225-403.
21. See Bellwood 1968.
22. Gilchrist 1988.
23. See Belich 1986:177-200, and Cowan 1922-23 I:411-429.
24. McFadgen 1977.
25. For an account of this campaign see Cowan 1922-23 II:44-68.
26. Buist 1968:165.
27. Buist 1976:Pl.6.
28. The second Patea Campaign, or Titokowaru's War, has recently received detailed treatment from Belich 1989.
29. The so-called 'Rorke's Drift' of Taranaki. Good accounts are in Cowan 1922-23 II:179-193, and Belich 1989:81-97.
30. Just why this immensely strong fortification was suddenly abandoned has long been subject to speculation. The best discussion is by Belich 1989:229-246.
31. Bates 1989.
32. See Cowan 1922-23 II:262-275; Belich 1986:260-267.
33. Mitchell 1983.
34. Spring-Rice 1982a.
35. Wilson 1961. See also Belich 1986:275-288.
36. Newman 1988:68-81.
37. See Scott 1975.
38. For a discussion of the change from pre-European fortifications to musket *pa* and artillery-proof *pa* see Best 1975:365-413. Belich 1986:291-298 also gives a detailed analysis of what he calls 'modern *pa*'.
39. For an account of the engagement see Cowan 1922-23 I:159-160.
40. See Cowan 1922-23 I:219-221. This fortification is usually called 'Katikara' or the 'Katikara *pa*' after the nearby river.
41. Mould 1863:Pls 2,3.
42. Nevin & Nevin 1980.
43. Mould 1863:104, 107.
44. Prickett 1981 I:248, 251.
45. Cowan 1922-23 I:242.
46. Young 1869:12.
47. Prickett 1981 I:51.
48. Prickett 1981 II:511, 530.
49. Alexander 1863.
50. Prickett 1981 I:131-135.
51. Prickett 1981 I:26.
52. Best 1921.
53. Cowan 1922-23.
54. Burnett 1963.
55. Wilson 1961.
56. Newman 1988.
57. Swarbrick 1965.
58. McKenzie 1972.
59. Bellwood 1968.
60. Buist 1968.
61. Prickett 1978.
62. Ross 1979.
63. Nevin & Nevin 1980.

64. Jones 1983.
 65. Ross 1986 and 1987; Ogle 1986.
 66. Prickett 1981.
 67. Spring-Rice 1982a.
 68. Mitchell 1983.
 69. Smith 1989.
 70. Prickett 1981.
 71. Spring-Rice 1982a.
 72. Spring-Rice 1982b.
 73. Fox 1981:77.

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