The lost, erased, unseen and forgotten

translating into architecture the New Zealand Wars.

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There is a perception amongst New Zealanders that our country was forged at Waitangi in 1840 with a shaking of hands and pressing together of noses. However, in actuality it emerged from a drawn out war of fear and unrest; four million acres of land was confiscated and thousands died fighting on it. Hills, valleys, fields and plains were soaked with blood from Wairau to Kororāreka. Today these sites still hold the memory of those fallen, but the New Zealand Wars and their implications now seem a distant haze on our nation’s consciousness. The wars have become lost, erased, unseen and forgotten.

The New Zealand Army Museum in Waiouru is the building on which I focus a critique of our past and present approaches to architecture. Creating an extension to this museum forms the design component of my thesis – the new building housing the museum’s overshadowed New Zealand Wars collection. The methodology involved researching and choosing specific stories from the full spectrum of the New Zealand Wars. Concepts, architectural languages and elements are then translated and collaged into a new building. The hope for this synthesis is that it will reveal our untold and unseen history through architecture, that it might represent and communicate something of our past to us; helping to [re?] construct our national identity.
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CONTENTS

I Abstract
56 2.6 Iteration 6: Blurred Earthworks

II Acknowledgements
64 2.7 Iteration 7: Inscriptions

III Contents
72 2.8 Iteration 8: Flags

80 2.9 Iteration 9: Rāpaki

PART 1

1 1.1 Introduction
PART 3

14 1.2 The New Zealand Wars & the Army Museum
88 3.1 Design & Conclusion

PART 2

22 2.1 Iteration 1: Ōhaeawai Pā
111 Glossary of Terms

30 2.2 Iteration 2: Pukehinahina Pā
113 List of Figures

36 2.3 Iteration 3: Rangiriri Pā
119 Bibliography

44 2.4 Iteration 4: Bell Tents

50 2.5 Iteration 5: Towers & Weatherboards
The New Zealand Wars were fought across this country on a scale that has never been seen since. However their significance does not lie just with the men who lay dead – from musket ball and tomahawk blow, but in its effect on the national consciousness. Despite the collective amnesia, such a trauma can never be fully suppressed; and the wars continue to define the power relationship that exists between Pākehā and Māori to this day.\(^1\) Since the wars were fought they have been lost, erased, unseen and forgotten. Even within academia and history books, the varying accounts and bias interchange hero for villain, genius for fool and friend for foe. Engagements and battles at which people fought and died are powerful statements of purpose and commitment. What took place often set a new course for New Zealand history. A history which is worth remembering and understanding.

Answers to why we have forgotten the conflicts have been put forth by many of the leading academics and historians of the New Zealand Wars. James Belich suggests people close to the conflict preferred to forget and repress it, as the wars had not been confirming experiences of triumph and heroism.\(^2\) For the later generations, tangible evidence was not easily found – there are no known photographs of casualties from the New Zealand Wars. Ruth Harvey reasoned, “Not only does the absence of imagery of death muffle the losses of both Māori and Pākehā alike, it helps shadow the reality of a conflict that many New Zealanders know very little about or can hardly imagine taking place within their own country.”\(^3\)

In addition to the lack of photographic evidence, the conflicts are scarcely memorialised in stone and monuments. Apart from wooden grave markers or tombstones, only four memorials were erected at the time of the New Zealand Wars themselves, and two of these were simple plaques in churches.\(^4\) Danny Keenan suggests that remembering conflicts of the past, and remembering warfare in particular, is a challenging process.
"In New Zealand, we remember our wars fought overseas in this way; every community has its statue to the Boer War, or to Gallipoli. By way of contrast, the wars fought around our own hills after 1843 are remembered with less clarity, and certainly with less commemoration." Furthermore Chris MacLean and Jock Phillips contended that Pākehā and Māori alike preferred to let the wars recede, unmarked and unremembered. Both sides believing that public amnesia would let military failures and social pain be forgotten.

Whilst these academics and historians tell us why we have this collective memory loss, their respective fields limit them in their response. I believe architecture has a unique role to play here in rehabilitating the fading memories of the New Zealand Wars. Contemporary New Zealand artists such as Shane Cotton, Paratene Matchitt, Greg Semu [fig. 1] and Laurence Aberhart all have works dealing with themes and consequences of the wars, but the nations architects have been less forthcoming. Miles Warren’s self-admitted lack of knowledge of our history helped birth their Army Museum from the Eurocentric image of a castle surrounded by a moat. Then from the 1980s onwards architects often focused on the empty bureaucratic slogan ‘bi-culturalism.’ Hamish Keith denounced it as a word everybody said, but which nobody could define – “It was a kind of verbal balm to be rubbed into any cultural wound.” Te Papa became a monument to this failed idea. Architects were perhaps part of the guilty group targeted by jeweller Warwick Freeman’s most ironic pieces – a cultural safety whistle, presumably to be blown at any moment of cultural danger.

Keith believed that “What bi-cultural ought to have meant, but did not, was not Māori and Pākehā and the rest, standing separate but equal; it was the dynamic and evolving bits in between.” Warren & Mahoney say something very simple about war with their building, the hope for my building is that it will say war is never simple. Thus I hope my design for
Fig. 3. New Zealand Army Museum as it would have appeared in 1978.
an extension to the Army Museum will reveal some of the intricacies of our untold and unseen history; so that it might represent and communicate something of our past to us.

I attempt to achieve this through the synthesization of nine iterations, each one telling its own story of the New Zealand Wars. The iterations are a result of specific research into an element from the wars and its translation into an architecture of sorts; most of which are only fully realized once placed in context with each other. I knew that best way of understanding what happened at these places was to visit them. Over ten days I managed to visit around thirty sites related to the New Zealand Wars including pā, redoubts, stockades, churches, memorials, battlefields and graves [fig. 2].

Iterations 1, 2 and 3 deal with various aspects of significant pā – Ōhaeawai and its deceptive palisades; Pukehinahina and its complex interior labyrinth; and Rangiriri with its monumental earthen walls. Iterations 4 and 5 examine the architectural language of Pākehā shelters – the bell tent and weatherboard clad frontier churches. Iteration 6 draws on the disintegration of the archaeological evidence of earthworks. Iterations 7, 8 and 9 look at some of the intersections between Māori and Pākehā throughout the wars – inscriptions on palisades and memorials; war flags and their cross cultural exchange of symbols; and the rāpaki, a traditional Māori garment adopted by Pākehā through the wars. Each of these iterations is both a component of the design, and a chapter presenting the research. The iteration chapters form Part 2 of the thesis. Preceding this is Part 1, comprising of an outline of the New Zealand Wars and a critique of Warren & Mahoney’s Army Museum [fig. 4]. Part 3 is comprised of a chapter on the design work and the conclusion – detailing how the extension addresses the lost, erased, unseen and forgotten New Zealand Wars.
END NOTES


8 Keith. p.258.
These wars, also variously termed the Māori Wars, Land Wars and Colonial Wars, are a collection of battles spanning over thirty years in the mid to late 19th century; the significance and implications of which has since been suppressed by the passage of time and guilt. Four million acres of land were confiscated and thousands died fighting over it and for sovereignty. At the wars height one fifth of New Zealand’s population consisted of British soldiers. On a per capita basis both the numbers involved in battle and the casualties were similar to those of the American Civil War. Whilst statistics may illustrate its scale, the subsequent consequences of the New Zealand Wars for the country are immeasurable.

It was a murky conflict, which remains difficult to comprehend and understand. In terms of victors there was no clear outcome, rather both sides lost in their own ways. It was not simply British versus Māori, as some Māori groups fought on the British side. Pākehā also did not present a united front, with much contempt between the imperial British soldiers and the colonial Governments troops. The wars at once united and divided. Some tribal groups forged alliances despite bitter rivalries from the earlier Musket Wars and beyond. Simultaneously other groups were split, hapū within the same tribe sided with Queen Victoria whilst others pledged allegiance to the Kingitanga, or Māori King movement.

British authorities held the view that Māori lacked the military intelligence and unity to slow their submission. James Busby in a letter to the New South Wales Colonial Secretary of New South Wales urged the despatch of a detachment of soldiers to uphold his, "With regard to the number of troops which it might be necessary to maintain, it would, I think, require little knowledge of military tactics to satisfy one who has witnessed the warfare of the native that one hundred English soldiers would be an over-match for the united forces of the whole Islands. But in fact there is little risk of even two tribes uniting to oppose them."
Most New Zealand historians now accept James Belich’s argument that the wars were a close-run thing, with Māori innovation all but a match for British power and Māori autonomy surviving long after it ostensibly ended. Māori lacked a professional fighting caste, their warriors were also farmers, and could not fight for extended periods against the professional British soldiers. Rather than being wiped out in battle, they lost two protracted races – an arms race and a numbers race. In ‘Making Peoples’, Belich writes of this process of ‘swamping’ – the great number of newcomers simply overwhelming the relatively few Māori in most parts of the country. There were about 60,000 each of Pākehā and Māori in 1858. By the end of the 19th century just one in every 20 New Zealanders was Māori. For a while, however, Māori had the power to deter European incursions.

Preceding the New Zealand Wars, Māori had been involved in the early 19th century Musket Wars, inflamed by the introduction of firearms by Europeans. But conflict between Māori and the Pākehā whalers, missionaries and few settlers was minimal; as it was generally mutually beneficial for the two to remain at peace. As more settlers poured in though, Māori became concerned with the shifting balance of power and land ownership. In 1840 the Treaty of Waitangi was signed, but inaccuracies in its dual translation lead to many disagreements in the years following. When some Māori felt that their interests the Treaty purported to protect were not being upheld, fighting ensued. What came to be known as the New Zealand Wars began with the Wairau Affray in 1843. This was the first major conflict of the wars, and was the last to take place in the South Island. Following this was the Northern War in the Bay of Plenty, scattered fighting in the Wellington and Whanganui districts, First Taranaki War, crucial Waikato War, Tauranga Campaign and Second Taranaki War. Concluding somewhat with the Titokowaru and Te Kooti campaigns in late 1860s and early 1870s.
World War II. “There were solid doses of the headmaster’s beloved Roman history, but no New Zealand history.” . . . of the tribal battles around Lake Rotorua I knew nothing.” Whilst Warren’s chance to learn of this country’s history was being obscured by tales of Rome, the young teachers were fighting for King and Country in Europe. The concrete bunkers his would-be teachers were attacking provided aesthetic inspiration for a style Warren would soon be versed in as a graduate architect. In 1953 a young Miles Warren was working for the Corbusian influenced London County Council architects office and was, in his own words, “extraordinarily fortunate enough to be sitting right in the middle of the birth of brutalism.” Twenty five years later he would utilise the aesthetics, and arguably the ethics, of béton brut to help execute a precise design for the Queen Elizabeth II War Memorial Museum in Waiouru – now known as the New Zealand Army Museum. For this building, which was to house our country’s military collections, Warren & Mahoney drew on what they described as the traditional symbol for the military establishment – a castle with a moat [fig. 5].

The campaign to build a ‘castle’ was initiated by General Hasset, Chief of General Staff for the Army in 1977. He presented Warren & Mahoney with a brief to design a new museum which was to serve the following purposes: as a New Zealand Army National Memorial: as a safe repository for military items of historical significance which may otherwise be lost; as a focus of public interest in the military history of New Zealand, and as a teaching aid for young soldiers. Located at the bottom of the Desert Road on the North Island’s Central Plateau is the small Army town of Waiouru. It was here, adjacent to the main road and the Army’s camp that the site for the museum was selected.

Upon its completion visitors would approach the museum through a broad raised forecourt one hectare in area. Passing an array of guns, tanks

However the end date of the wars varies from historian to historian, largely because of the lack of closure from a decisive final battle. Some give it as Titokowaru War ending 1869, others Te Kooti’s War ending 1872 or the Parihaka raid in 1881. Others still cite the so called Dog Tax War as the last gasp of the New Zealand Wars at the close of the 19th century. The period after the final battles of the New Zealand Wars can be described as one of uncertainty. The belief that the Māori rebellion had been successfully concluded was a minority opinion. The majority of colonists held the view that the resumption of the New Zealand Wars was likely. Even today many Ngāi Tūhoe feel that the wars are unresolved and living, with the 2007 New Zealand anti-terror raids in Te Urewera considered by some to be an extension of the Crown’s past injustices.

The idea that the wars have been forgotten is not a novel one, in 1923 Cowan wrote “. . . in testing the historical knowledge of the average New Zealander the fact is too apparent that the young generation would be the better for a more systematic schooling in the facts of national pioneer life and achievements which are a necessary foundation for the larger patriotism. His books on the wars were designed to correct this deficiency in the popular mentality. Unfortunately Cowan and his contemporaries efforts were ineffectual. The New Zealand Wars failed to capture the peoples imagination, which can be attributed to a certain lack of cultural independence and of a New Zealand historical sense. Belich wrote “The story of the wars had been rendered more palatable by scapegoat hunting, by neglecting Māori innovation and by emphasising chivalry and barbarianism.” Concluding that, “The suppressive reflex was the fail-safe device of the dominant interpretation. The final safety-net was to forget.”

For the most part forgetting seems to have worked rather well. In his autobiography Miles Warren discusses being taught by old men pulled out from retirement to replace the young teachers who had left to serve abroad in
and military hardware on display, before crossing the moat via a bridge leading into the museum entrance. Originally the building consisted of two blocks, with the southern end designed to enable future expansion. Stage I was completed in October 1978 and its success led to Stage II being opened in April 1983 [fig. 6]. A decade later General Hasset led the charge to establish the Kippenberger Pavilion which was to house the Kippenberger Military Archives and Research Library. This final addition was completed in April 1995 and is situated to the north on the strong axis established by Warren & Mahoney’s first two stages [fig. 7]. The Kippenberger Pavilion was placed directly on top of the display forecourt; the very part of the museum which Warren felt was the most successful.13

Standing alone in its barren surrounding, the museum appears to have been dropped like a stone from above; coming to a rest in complete contrast to the plains on which it lies. Whilst the plains stretch wide to the edges of the horizon, the museum has a vertical rhythm to it. New Zealand’s harsh light draws strong shadows across the bush hammered, deeply ribbed reinforced concrete panels which encase the three blocks. Ross Brown describes how the cool grey of the concrete blends with the buff tundra and the blues/purples of the mountains and ranges in the distance.14 He also draws attention to a reference, inferred or accidental, between the concrete outcrop that is the museum and the concrete gun emplacements which grace Waiouru’s distant hills.15

Formally speaking, the museum is mostly successful. The architects certainly met the brief requiring the building to be an easily recognised memorable form. Ross Brown, in his appraisal of the museum, described its image as “uncompromisingly simple, solid and almost brutal in its impact” resulting in an “over-simplistic and clichéd building form.”16 To which Miles Warren responded by claiming that the prime function of the building envelope was for it to be an eye-catching image, seen at the pace of a car. In this sweeping statement Warren has just effectively reduced his museum to a large billboard. This buildings form, which is also called to be a memorial for fallen soldiers, is thus primarily dictated by the automobile. It seems to be the client-architect relationship which causes the public success of the building whilst also creating its failings in critical theory. The memorial museum is imbued with the thought of a shopping mall. My local shopping mall in the suburb in Christchurch where I grew up was called ‘The Palms’. So the architects designed it in faux Miami beach style – tilt slab exterior walls painted in pastels and lined with palm trees. This was perhaps my first experience with context and over simplified concepts. The trees quickly failed to thrive, having been imported from Fiji and the pastel colours appeared dull against the ever overcast skies of Christchurch. In Waiouru, as requested by the client, Warren and Mahoney have given us a simple, bold castle. A form recognised by a child driven past it at 70 kph. Certainly it gets visitors through the doors, but as a National museum and memorial, what does it communicate to us about our country, our

![Fig. 5. Fifty ton Centurion tank guards the Museum, 1978.](image)
Fig. 6: Stages I & II of the Museum
identity. Should the building housing fragments of our military history not suggest to us something about our military origins?

Warren and Mahoney were given the opportunity to push the brief further, to not have their creativity and voice limited by the client. Instead they looked to a historical typology which has never existed here, and further still arose before this nation was birthed [fig. 8]. This thesis argues for the recognition of the New Zealand Wars as an important and undervalued series of events which for better or worse has made us (New Zealand) who we are today. Yet Miles Warren, through no real fault of his own, had no or little knowledge of our domestic Wars.

This New Zealand Army Museum has a distinct lack of New Zealand-ness about it. The flat roof is not part of our vernacular and the complete absence of wood is surprising to a nation renown for its timber supplies. The building eschews these things in favour of a theatrical universal symbol. This is a sheep in wolf’s clothing; post-modern theory clothed in brutalist modernism. Warren defends the design and materials used by reasoning that it had to be tailored to the skill set of the army engineers (who completed the buildings first stage in one year). “Complex timber framed forms requiring accurate set out were not their thing. Big, coarse precast concrete elements, with no finesse of fiddly detail were a straightforward challenge.”17 However Warren is dismissive of the abilities of a group of men dedicated to a single cause.

My central criticism of this building is that it generates the castle image through the visual language of brutalism. Brutalist architecture seduces us with its strong geometries and singular forms, its raw beauty in part drawing from the concrete bunkers of the 20th century World Wars. Reyner Banham writes in his book New Brutalism, “For all its brave talk of ‘an ethic, not an aesthetic’, brutalism never quite broke out of the aesthetic frame of reference.”18 And here more than ever this quote rings true. At Waiouru Warren & Mahoney missed a crucial chance to develop an architecture true and reflective of our country. Instead they produced a building that is post-modern in its use of symbolism and brutalist in its visual vocabulary. The theatrics and historicism at work here demeans the art of architecture and robs us of a moment in which we could have had our past revealed to us.
END NOTES


06. Cowan. p3.


Hone Heke's felling of the British flag at Kororareka sparked what came to be known as 'The Flagstaff War, which would engulf the far North in a series of battles between March 1845 and January 1846. One of the major actions of this war was the Battle of Ōhaeawai in the winter of 1845. Pene Taui’s Ōhaeawai Pā, designed by his ally Te Ruki Kawiti would become the prototype for the modern pā [fig. 9]. Its success in protecting its defenders from the British artillery led historian James Belich to claim it as being the birthplace of modern trench warfare. This iteration focuses not on the trench system but on its deceptive, seemingly impenetrable palisades.

In its original form Ōhaeawai Pā was the headquarters of chief Pene Taui. After the fighting began in Kororareka he realized that his own district might before long become a theatre of war. Following the Battle of Puketutu, Kawiti and Hone Heke united with Taui in modifying his pā with a new defence system. Kawiti, a veteran of warfare and fortification design, marked out the lines of the new pā, which when completed more than doubled the size of the original stockade. The pā was a major advance in the Māori response to new weaponry. The use of firing and communication trenches gave the occupants maximum protection while allowing rapid movement within the pā. Rua (anti-artillery bunkers) were carved out from the ground and covered with logs, stones and matted flax. Belich’s claim for it being the birthplace of modern trench warfare is given some founding by way of the models which were constructed of the Pā by both sides after the battle. One side to learn how it could be penetrated, the other how it could be reproduced.

Significant to the success of the pā was its palisade, which consisted of the pekerangi (screen) and up to three lines of stockaded timbers – kiritangata (‘the warriors skin’) [fig. 10]. The pekerangi was formed of strong timbers 3 - 4.5 metres in height. Most of them whole trees, sunk deeply in the ground at short intervals, all bound firmly together with cross-rails
Fig. 9. Detail from watercolour by Thomas Biddulph Hutton - 'Ohwhateawai' showing the ground plan of the Ōhatawhai Pā.

Fig. 10. Detail from watercolour by Thomas Biddulph Hutton - 'Ohwhateawai' showing a section and elevation view of Ōhatawhai Pā.
Fig. 11. Cyprian Bridge's depiction of the palisade at Ohaeawai Pa, 1845.
and bush-vines. Strapped to this was a thick mantlet of harakeke (New Zealand flax) which deadened the impact of projectiles and masked the real strength of the stockade. The second line of stockade, the kiri-tangata, was stronger than even the well-constructed pekerangi; every timber was set in the ground to a depth of about 1.5 metres, and rose above ground to match the height of the pekerangi. Many of the timbers, set close together, were whole pūriri trees more than 300mm in diameter. This line of stockade was loopholed on the ground level with apertures matching that of the parallel pekerangi for the Māori's muskets to fire through. Within the double stockade and the firing-trench again, on a portion of the front at least, was a third line of timbers against the outer side of which the earth thrown from the ditch was heaped.

The total effect created by the masked palisade was one of subterfuge. Its flimsy appearance, due to the flax, concealed the palisades true strength and completely deceived Despard’s men. Major Cyprian Bridge recorded the horror of realisation after he was afforded a closer inspection: “I thought it would be alright [the assault] but when I got up close and saw the strength of the fence my heart sunk within me.” In struggling with the pekerangi the attackers gave the defenders sufficient time to shoot them down. Belich described it as performing a function similar to that of barbed wire on more recent battlefields.

Ōhaeawai Pā was defended by just 100 or so warriors, from the elderly 70 year old Kawiti, seeking to avenge the death of his son on the previous battlefield, to young Rihara Kou, a 12 year old boy warrior. They were outnumbered 6 to 1 by Lieutenant Colonel Despard’s combined forces from the 58th and 99th British Regiments, naval marines and Māori allies under Tāmati Wāka Nene. Whereas a steady stream of intelligence had been received before the previous battle at Puketutu, Despard knew little about the nature and extent of the defences at Ōhaeawai. The decisions he made that day were based on what he could observe and pekerangi succeeded in blocking his view. Despard ordered the assault on the pā after being provoked by a sortie sent out by Kawiti. This party took Wāka
Nene’s men in their position up behind the pā by surprise. Seizing Nene’s British flag, the party returned to their pā, hoisting the ensign up on the flax halliards of their flagstaff, below the defenders own flag – a Māori garment. A move which infuriated Despard.

Over 400 shells were fired into the pā during the week long bombardment, which according to Bridge “must have astonished the weak minds of the natives.” Despard assumed the assault would be a straight-forward affair and sent forth attack columns of his best men. They were met with a volley of musket fire from the pā, a lucky survivor wrote, “I can only describe it as the opening of the doors of a monster furnace.” Soon after the ‘Retire’ was sounded, in a few minutes the attackers had 40 killed and 70 wounded – half their total force.

The concept of subterfuge and the contrast of weak and strong materials were the key ideas from the palisade translated into the design of this iteration [fig 13, 14, 15 & 16]. Along with the forms and proportions relating to the loopholes and horizontal cross rails which contrast the vertical strips of harakeke. The façade created through the translation of these ideas consists of lengths of steel cable suspended from horizontal steel plates. Each plate is fixed to the supporting wall of cruciform steel columns which are placed at short intervals, being divided by thin strips of glass. The glass strips admits bars of light to the interior, filtered by the suspended steel cables that sway with Waiouru’s prevailing winds [fig. 18]. Viewed from Desert Road (State Highway 1) the whole façade shimmers, appearing light and transient. Masking the strong wall of cruciform columns behind [fig. 17]. Vertical lines created by the steel cable visually link the new extension with the existing building’s strong verticality of bush hammered concrete precast panels. Whilst the horizontal steel plates break up the surface and enhance depth; casting triangular shadows across the cables which zig zag back and forth in shifting bands along the width of the façade. The total effect being a face which conceals whilst ever responding to current conditions, transforming throughout day and season.
END NOTES

02 Cowan. p53.
03 Cowan. p53.
06 Cowan. p60.
The story of Pukehinahina Pā (Gate Pā) is an oft told tale of the New Zealand Wars, where the British were handed an uncommon rout by Māori. Recounts of the battle invariably focus on Aotearoa’s own Joan of Arc, Hēni te Kiri-karamu. After fighting alongside her Ngāi Te Rangi kin, Kiri-karamu brought water to the British as they lay dying in the evening. Obeying the scripture included in the rules of conduct Ngāi Te Rangi leaders had drawn up: ‘if thine enemy hunger, feed him; if he thirst, give him drink.’ This recital became the emblem of Pukehinahina, a better story to focus on than the 111 dead soldiers. Men whose deaths could not be explained by the British, who searched everywhere for a reason – except for the pā itself.

Recounting the battle, Captain Gilbert Mair wrote: “No satisfactory explanation has yet been given, how it happened that nearly two thousand men of Her Majesty’s forces, the finest troops known, amply provided with the best artillery and arms of precision in the world, were singly defeated by less than two hundred and fifty Ngaiterangi warriors, whose only weapons consisted of old flint tower muskets, Brummagem double and single barrelled shot guns and long-handled tomahawks.” Mair and others could not comprehend a loss which owed much to the genius of Pukehinahina’s grand design. What was truly significant about the pā constructed at Pukehinahina was its interior.

This battle was part of the wider Tauranga Campaign by the colonial Government. Māori reinforcements and supplies to the King Movement were flowing via an important route through the Bay of Plenty. In order to block off this route the government sent troops to Tauranga. Under Rawiri PuhiRakake the local Māori force built Pukehinahina Pā just 4km from the British camp in a deliberate provocative move [fig. 21 & 22]. This was after two previous pā had failed to solicit an attack, even with PuhiRakake offering to build them a direct road it. In spite of finding “no satisfactory
explanation” for the eventual defeat of the British, Mair describes how the Māori “had converted a harmless looking grassy knoll into a work that was to test the calibre of British troops to the utmost.” Further stating: “Probably there never was an instance in modern warfare where more deliberate and carefully conceived plans had been devised for securing a crushing defeat of the enemy.³

The architect of this pā was one Pene Taka Tuaia, who perfected his craft of fortification design during the Northern War of 1845-46 [fig. 19]. Here he was presented with the task of building a pā despite a distinct lack of timber. Such was their supply shortage that to add to the scrounged kānuka, a party was sent out to recycle a settlers fence and a stockyard.⁴ From this, Tuaia designed a single light fence lashed to two rails to enclose his piece de resistance – an interior earthworks like never before. It was a complex arrangement of concealed trenches, shelters, covered ways and traverses. Whereas Ōhaeawai Pā and its successors concentrated construction efforts at keeping attackers out, Pukehinahina practically welcomed them in. From the enemies position, the labyrinth of the earthworks were concealed. For all appearances the pā was little more than a long ditch fortified by a matchstick fence.

At daybreak on the 29th of March, 1864, General Cameron gave the order to open fire on the pā. It was to be the largest artillery train ever assembled in the whole of the New Zealand Wars. Consisting of 15 guns including the latest in military technology – a breech loading Armstrong which fired 100 kg shells. The shelling continued through the night until the following afternoon when it appeared that all the defences had been obliterated. Of the 1700 men at his disposal, 800 were ordered to storm the pā. With one group positioned at the rear, to prevent escape and bring Cameron the decisive victory he longed for. The storming party gained entrance to the pā easily enough, but within 10 minutes came pouring out again in total confusion. Normally troops would expect the greatest resistance as they approached the pā, but at Pukehinahina, the occupants hid until the assault party had entered, before unleashing a torrent of musket fire.⁵

When they stormed the pā the British were unaware of the sophistication of the defensive works. Ensign Spencer Nicholl later wrote: “The Pah from the outside looks the most insignificant place.”⁶ Mair offered these excuses in his recount: “It was now almost dark, and most of the officers had fallen; the assaulting column supports and reserves were all crowded into a small space, and appeared to have lost control, and a panic ensued, caused, it is
Fig. 22. Horatio Gordon Robley's plan of Pukehinahina Pa, 1864.
said, by a subaltern calling out: — ‘My God, here they come in thousands!’ Others again say the order ‘Retire! Retire!’ was given. But whatever the cause, the disordered mass, instead of holding on to the earthworks already won, retreated, despite the heroic efforts of their gallant officers, who freely sacrificed their lives in their vain attempts to stem the panic.7

Perhaps more accurately, Hori Ngatai, a leader from Ngāi Te Rangi described it so: “Through and over the breach walls they rushed; they entered the ruins of the larger pa; most of it was in their possession. But all at once the tide of war was changed. Up leaped our men from the rifle pits as if vomited from the bowels of the earth, and together with those who had been forced back by the 68th Regiment in the rear, began a deadly hand to hand fight with the storming party. The defenders of the smaller pā held their position and raked the attackers with a heavy fire. Men fell thick and fast. Tomahawk clashed on cutlass and bayonet – tupara (double and single barrel fowling pieces) met rifle and pistol. Skulls were cloven – Māoris were bayoneted – Ngaiterangi patiti (hatchets) bit deep into white heads and shoulders. . . They fell back on their main body below our works, leaving many of their dead and wounded strewn on the battle ground.”8

In order to translate the architecture of Pukehinahina into an element for the museum extension, I focused on the interior labyrinth of earthworks. Its interior challenges preconceived notions and attitudes which linger today about the lack of military intelligence Māori possessed; or that the success of the pā was based on terrain advantages. At Pukehinahina they produced earthworks which bewildered the experienced British, whilst the natural terrain offered no impedance to the attackers or assistance to the defenders. It also shows the sophistication of Māori design efforts, under no influence or assistance from outside sources. To enhance and bring attention to this quality of sophistication, I derived a labyrinth of geometrical forms based on the language of the earthworks. These forms are carved out of the foyer space to create a café with the surfaces of tables and recessed seating clad in sleek tawai (silver beech) panelling (fig. 23). Rua become booths for families; trenches and traverses become confined aisles between seats, which echo the blocky rises of firing platforms. The resulting space is perceived from within as defensive and enclosing. From the gallery floor, the visitor looks down upon the café forms, whose peaks are level with the gallery floor. So figure/ground perception of the café changes markedly from position – in the foyer and café the figure rises from the ground; on the gallery floor above, the ground falls through. Cutting voids out of the tawai solids.
END NOTES

03. Mair. p12.
07. Mair. p15.
08. Mair. p27.
Snaking the length of New Zealand’s two main isles is 2047 km of road, collectively known as State Highway 1. From the crest of Cape Reinga in the far North, to the nadir of Stirling Point in Southland. At the centre of its path through the North Island it passes alongside the Army Museum in Waikoura. A little further North it cuts straight through the remnant of Rangiriri Pā; the site of a battle which cost both sides more men than any other engagement of the wars. Aside from the casualty list, the significance of this battle lies in the design of the pā. Rangiriri reflected a further shift away from pre-colonial models in that it abandoned palisades entirely. Relying instead on the heavy manipulation of ground into a formidable line of earthworks [fig. 24]. Today the earth once carved with geometrical precision is worn and eroded to a curving mesh of terra firma [fig. 25].

On 20 November 1863 British forces under General Cameron marched from Meremere to Rangiriri. Here Māori forces had constructed a deep line of earthworks across the isthmus between the swampy margins of Lake Waikare (now a smaller remnant – Lake Kopuera) and the Waikato River [fig. 26]. Though it is referred to as Rangiriri Pā, the name itself is slightly misleading as it was a defensive line rather than a fort. Cameron planned a two-pronged attack under cover of a heavy bombardment from the gunboats. As a 900-strong ground force attacked from the north, 520 men were to land simultaneously from the Avon and Pioneer gunboats and attack from the rear.

The works consisted of a high line of parapet and double ditch running a full kilometre between lake and river. At its centre the line was strengthened by a square redoubt of considerable construction, its ditch being too wide to jump, and the height from the bottom of the ditch to the top of the parapet 6 m. The man responsible for the design was a leading chief of Waikato proper – Tē Wharepu. The strength of this work was not known to the British before their attack, as its profile cold not be seen from the
Fig. 24. Charles Heaphy’s drawing of the attack at Rangiriri, with the naval party scaling the massive sheer earthen walls. 1863.

Fig. 25. The remains of the central stronghold at Rangiriri today.
Fig. 26. Edward Brooke’s plan drawing of the Rangiriri defences, 1863.
In the belief that it was just a common embankment Cameron concluded that Rangiriri could be taken by a well mounted frontal assault.  

In the ensuing battle Cameron was to be shaken by the losses sustained by his forces. The fighting ended at nightfall in a stalemate and the final stage of the battle involved little or no fighting. The British spent the night “bivouacked on the wet ground, disgusted and disheartened.” During the dark of night the Māori organized an evacuation, in about four echelons. The first consisting of the principal chiefs among the garrison, including Wiremu Tāmihana and possibly King Tawhiao. At dawn the remaining defenders hoisted a white flag, intending to parley. The British, according to Belich, took unscrupulous advantage of one of the most practically valuable and widely accepted laws of War. With much confusion on the Māori side, their arms were confiscated and they were taken prisoner under the pretence that they had unconditionally surrendered.

Belich offers that Cameron had had eight assaults on the central redoubt bloodily repulsed, and it was not surprising that he should seize his chance for victory rather than risk more of his men. 37 of his men lay dead on and around the Māori defences, a further 10 were mortally injured and another 83 seriously wounded. Of the defenders an unknown number were injured, but 41 were killed. They were interred in the graves they had unknowingly dug for themselves – the deep trenches of Rangiriri Pā.

Only a small portion of the Māori position at Rangiriri still survives, part of the central stronghold. The Department of Conservation describe it now as a historic reserve, “conveniently sited beside S.H.1.” Sadly the reality is that the highway courses straight through the pā. The road was constructed soon after the battle when sentiment was low; but a century later the government knowingly destroyed part of the surviving earthworks.
when they widened of the highway considerably. What remains is but a whisper, or a trace of the once monumental defensive line. Without knowledge, or with indifference we drive straight through New Zealand’s colonial Maginot Line at 100 km/h.

The greatest contrast to be found is the pure geometry of the earthworks, as they were on the morning of 20 November 1863, to the organic curves of earth seen in its remnant today. For a British soldier to climb the 6 m sheer earthen face to the summit of the parapet was no easy task. Now the ground surface form seems frozen as if it was a low wave rolling through the pacific ocean. This contrast is the central theme for this design iteration. My intent was to show these two diametric states in a singular form. To represent the ground surface I digitally mapped the remnant of Rangiriri in three dimensions [fig. 27]. Abstracting this surface into a 1 x 1 m grid fleshed out in 100 mm tubular steel. And in doing so, allowing a solid surface to be perceived and understood from any direction. Then the 50 x 30 m grid is rotated 90 vertically. Now what was a rolling landscape become takes on an aggressive stance, its curves overhanging or sucking away from the exhibition space [fig. 29].

From the exterior the tubular steel is masked by a ghostlike curtain wall of semi-opaque polycarbonate panels. The grid of steel appears to move in and out of focus, as its portrayal of the Rangiriri remnant fluctuates in relative distance to the polycarbonate. At nightfall this effect is amplified further, the Rangiriri form silhouetted against a backdrop of interior lighting and obscured gallery forms. From the interior the polycarbonate emits daylight into the interior, illuminating the gallery floor with a soft white glow.
END NOTES


05. Belich. p155.

06. Ritchie. p14.

In the 19th century Queen Victoria’s soldiers across the expanding British empire were supplied with the humble bell tent. While the British army occupied the landscapes of New Zealand through the colonial wars, this tent was their home. The bell tent was a portable shelter of canvas stretched over supporting poles and fastened to the ground with ropes and pegs. Approximately 3.5 m in diameter it could sleep between 6-10 soldiers. It is not the first typology that comes to mind when considering the architectures of the New Zealand Wars; bell tents were transient by nature, so have become unseen objects in the battlefield landscapes. Instead they appear in books and archives – from the pages of Cowan’s inceptive volumes on the wars, to the panorama sepia photographs held in the National Library’s collections. Once noted, their white peaks seem to be appear in every second surviving image, and every other diary entry of the imperial soldier.

The significance of the bell tent is not due to its prevalence in printed materials, but in its role as a physical manifestation of British order and occupation, thus ownership, of land. Archival photographs show organised tents in the landscape, well run, ordered [fig. 31 & 32]. Their intent is to imply a normalcy, an order, a sense of closure. Each tent creates a backdrop in the photographs which often depict small rituals of everyday life despite war; which in turn gives a firm symbolic message that these soldiers are upholding the British way of life far from home. Comparing the New Zealand Wars with the Crimean and American Civil War, Jennifer Green-Lewis writes that “. . . the photographs of camp life in all three conflicts imply a normalcy, an order, a sense of closure.” These photographs “. . . stage an order of things which, far from being upturned by battle’s chaos, is apparently portable and transcendent, a system that domesticates the incivility of war by pausing for tea before resuming the fight.” This can be seen in a photograph from the 1870s showing men from the Armed Constabulary in full dress [fig. 30].
Green-Lewis also compares two photographs, one a Taranaki volunteer encampment at Waiwakaiho and the other, an inspection of troops at Cumberland Landing in the Civil War; which both show tidy rows of tents dotting an open space, implying troops at the ready. Images such as these portray the very structures of society that the forces believed they were fighting for. Organised rows of bell tents sit at the heart of the British occupation of landscape, well run camps, relaxing troops, orderly marching and neat uniforms suggest that it is only a matter of time until the hostilities are over and control is restores. This perhaps contributes to a prevalent understanding today that the New Zealand Wars were virtually over before they began.

For the design iteration the arrangement of tent forms was further formalised into a strict grid. The grid’s plane sits at 13200 m, on top of the extension’s roof, allowing the tent-scape to be seen from a distance. Strong
Fig. 32. Bell tents spread across the Pokeno landscape in the Waikato.
geometrical peaks form on the horizon line, seen foremost from the Desert Road approach. Red tips, seen on many of the New Zealand Wars bell tents, further highlight the peaks and lend them a sense of danger or violence. 58 cones are aligned in rows and columns, mirroring the top floor plate of the Kippenberger library office space, and functioning as skylights. Diffuse day light is allowed through the molded opaque white polycarbonate forms via a south-east triangular cut; resembling the parted canvas opening of the bell tents. In the interior of the library office the occupant also experiences the forceful geometry of the grid, circular voids cut through the ceiling to meet the base of the cones at the roof junction.
END NOTES

03. Green-Lewis. p131.
04. Green-Lewis. p143.
05. Harvey. p153.
Part of the most preserved architecture of the New Zealand Wars is churches. Settlers constructed many church buildings throughout the wars which were salient building blocks for their frontier towns. As the largest building within towns they operated as places for community gathering as well as worship. However, when there was unrest in their districts, settlers transformed them into fortified outposts. This was often to the disgust of Christian Māori chiefs, who believed changing houses of God into houses of war was sacrilege.1

Pukekohe East Church was one such example, and atypical of standard encounters of the New Zealand Wars [fig. 34]. Two months after Governor Grey’s proclamation of July 1863, “All persons of the native race living in the Manukau district and the Waikato frontier are hereby required immediately to take the oath of allegiance to Her Majesty the Queen, and to give up their arms,”2 the fortified church was attacked by Kingite Māori. The battle was unconventional for the wars in that it featured Māori attacking instead of defending, Pākehā grossly outnumbered, and of course a fortified church instead of pā or redoubt.

Fearing an imminent attack, the Pukekohe East settlers had ‘stockaded’ their church, with logs laid horizontally up to 2 m high with loopholes cut in vertically for the firing of rifles.3 A deep trench was dug around the stockade and this is still clearly visible today. On 14th September 1863, two hundred Māori warriors paddled down the Waikato River in three titanic waka tauā; specifically to attack the church come militia outpost.4 The defenders numbered nine volunteer militia, a boy, ten special constables and an officer. Together they managed to hold off the attackers all day, until military reinforcements arrived [fig. 38].5

Following the arrival of support from the British Army, the Māori who had suffered heavy losses were forced to retreat quickly. With no time to bury
the dead, they concealed their bodies in the hollows and the branch forks of large trees surrounding the church. The bell tower and roof became a central motif in the story of the battle when a kererū flew up and perched there for most of the day during the fighting. For some of the hard-pressed settlers, the beautiful wood pigeon perched in such a precarious sanctuary seemed to herald hope and an omen of success. It was unbothered by the bullets that whistled about it. Several of these projectiles punctured the church’s 3/4 inch thick rimu weatherboards, leaving holes which can be seen today.

Other important examples of churches involved in the New Zealand Wars include St Brides Church in Mauku [fig. 36] and St Stephens Church in Opotiki [fig. 35]. The latter infamous for the slaying of German missionary C S Völkner outside his own church by Pai Marire emissaries in 1865. Unlike Pukekohe East Church, the St Brides Church itself was loopholed for defence, with additional timbers giving further protection. The cruciform design of the building exactly lent itself to fortification, and gave the defenders the necessary flanking bastions. The openings for rifle-fire were cut through walls and stockade; the garrison therefore could point their long rifles through the double defence.

There are some clear connections between the towers of these churches and the twin towers of the Army Museum. I felt this iteration was a good
Fig. 38. Drawing of the attack on the Pukekohe East Church stockade.
opportunity to reconcile chances missed by the Kippenberger Pavilion to continue the existing Museum’s strong, formal lines of symmetry. The result is two weatherboard clad circulation towers, mirroring the two existing concrete towers [fig. 39]. Two forms of fenestration are at play here based on bullet holes and loopholes; loops intentionally outwards focused, bullets unintentionally piercing inwards. Set evenly above the towers floor levels are narrow vertical windows recalling these loopholes of the fortified churches. Contrasting to this are small circular holes set with glass and scattered across the towers, decreasing in density as the walls rise. Access to the roof of the towers grants visitors sentry duty with a 360 degree lookout of the Waiouru planes. A former bridge, connecting forecourt to museum before the Kippenberger addition, is reconstructed to connect the extension to the existing museum. This forms the single connecting point between the two buildings, projecting across the water filled moat.


03. Stone. p2

04. Stone. p2

05. Stone. p2


Academic interest in the New Zealand Wars has waxed and waned ever since the battlefields were abandoned, but it has never disappeared. On the ground however, a different picture is painted. Archaeologist Nigel Prickett asserts that, with the exception of a few marquee sites, the structures of the wars have continued to disappear. Preservation of most the battle sites as places of commemoration has not been simply lacking, it is and has been, non-existent. In the twenty-first century a curious visitor will see no imposing structures of the wars, but must search for clues in the landscape. And each season, each year, each decade, the evidence in the landscape becomes ever more elusive.

Of course, fortifications of the New Zealand Wars were never built to last. Māori war pā were thrown up relatively quickly and were usually void of the carving customarily ascribed to the permanent fortified tribal villages. Defences were constructed for a specific purpose, and abandoned when they lost their relevance. Many New Zealand Wars pā were built on the site of Musket Wars pā, which were often themselves atop earlier fortifications. Traditionally the dead were buried in their ditches, whose outlines, in addition to correlating banks, are characteristically all that remains today. Pākehā sometimes followed this burial practice during the wars – at least with Māori dead. More often they built redoubts (earthworks), stockades (wooden forts) and blockhouses on the foundations of captured or abandoned pā. Interestingly many of the European works still remain yet not many pā do. In other instances churches were built atop pā sites by missionary or tribal groups as symbols of reconciliation.

One such church was constructed on the site of Ōhaeawai Pā [see Chapter 2.1] by the defenders descendants, 26 years after the ruthless 1845 battle [fig. 42]. Almost 100 years later, Edmund L. Reed wrote, “How many motorists who travel the road between Ohakeai and Kaikohe, Bay of Islands, take notice of a little church standing on a slight eminence and
surrounded by a stone wall; a lone building without access, save through the paddocks amongst which it stands.”

On the anniversary of the attack Reed could imagine “some stirring amid the grass; bugle calls, however faint; an echo from the hills of Māori warrior cries; a smell of powder in the air.” He remembered that as late as 1914 a number of cannon balls and a broken cannon could be seen lying there to remind one, in Wordsworth’s words, of “Old, far-off forgotten things, And battles long ago.”

Nevertheless in 1939 as he penned his recollections, the shattered pieces of artillery had been carried off by a local. And today, for most New Zealanders the triggers of memory are harder to find there. Equipped with no education of the historical events, the common passerby sees a seemingly innocent, gently rolling landscape beneath a solitary country church. They see no cannon fragments, palisade lines or once strong geometrical trenches – all but erased by one hundred and fifty years of infilling and erosion. At Ōhaeawai, like many other sites across the country, pastoral farming was the chief agent of destruction [fig. 43]. Tracing a trench from the Ōhaeawai Pā, and encircling the church built at its centre, is a low stone wall. Once the hollow of the trenches outside the wall was quite obvious, now they are unemphatic. Under intensive stocking regimes, fortification and other earthwork sites can become invisible in a few years.

Another noteworthy example is found in by far the largest fortification of the New Zealand Wars – Pāterangi Pā [fig. 44]. In order to prevent Cameron’s forces marching further south after the battle of Rangiriri [see Chapter 2.3], Rewi Maniapoto assembled 2000 Māori warriors from over a dozen tribes to build an ambitious fortification in the Waikato.

It consisted of 2km of trenches with single and double parapets enclosing most of the hill. Six major earthwork strongholds constructed at critical points along the trench-lines anchored the defences, while deep interconnected bunkers provided shelter from artillery barrages. Perhaps with the
Fig. 44. Brooke's plan of the monumental Pāterangi Pā.
recent losses at Rangiriri in mind, Cameron decided the pā was impenetrable and made a finely constructed gamble on an outflanking plan. Bypassing the Māori defences on Pāterangi hill during was Cameron’s masterstroke and one of the most decisive acts of the war. But whilst an army of 7000 could not destroy the earthworks, herds of cows armed with time could. Today Pāterangi’s once vast and mighty trench-lines are lost forever in grazing fields of green grass (fig. 45 & 46). Farming though, has long been New Zealand’s greatest economic strength and source of identity as a nation. After the New Zealand Wars, Pākehā culture became prevalent, and at its centre was rural farming culture. It is perhaps ironic then that farming, having contributed such a great amount to our cultural lexicon, has also led the charge in the destruction of our historic battlefields. Thus Nigel Prickett’s ‘Landscapes of Conflict’ is for the most part erased by John Clarke’s ‘Footrot Flats’.

Some destruction has been prosecuted by the Crown, such as at Pukehinahina Pā, where a local settler’s grazing cows completed the job of filling in the pā’s trench network. Yet the same governmental body simultaneously allowed destruction of sites – in the 1980s a 1300 sq m Armed Constabulary earthworks at Tataraimaka was destroyed in a day by a new landowner putting in a farm race. Prickett asserts that despite the protection afforded by the Historic Places Act, site destruction and attrition has actually increased in recent years. In addition to intensive stocking regimes, destruction today is inflicted through illegal digging by militaria collectors or bottle hunters, and development pressure as land use intensifies or changes. Prickett concludes that, “The important historical and archaeological landscape of the wars is now coming under great pressure with rapid changes in land use, in precisely those parts of New Zealand that were most fought over – and for the same reason: this is the most populated and productive and desirable land.”
Fig. 47. Concept sketch of ‘blurred earthwork’ iteration interaction with northern wall.

Fig. 48. Concept sketches of iterations form.
The phenomenon encountered at many of the sites I visited was one of uncertainty in differentiating trench from what is natural landscape. Trench bottoms had been smoothed out from consistent depths to slowly descending ramps—earthworks become blurred. When abstracted this form appears as a deepening sharp cut, coursing through a broad forecourt [fig. 50 & 51]. The visitor is able to decide where to enter the incision, head on from its tip, or to drop in from the side banks—which becomes increasingly impossible the closer one gets to the museum. The cut serves to strongly mark the entrance to the museum, but not force interaction from a particular point; echoing the trench phenomenon experienced at many of the New Zealand Wars sites across the North Island.

Once entered the cut guides the visitor head on towards the museum, giving them time to consider and absorb the inscription on the northern wall [see Chapter 2.7]. The wall is not broken by the entrance which passes beneath it, taking visitors into the semi subterranean foyer. Instead it traverses the entry cut, and as this threshold is passed there is a tangible feeling of the buildings weight suspended above you. Metaphorically the weight of our history is also suspended above, represented in the massive inscribed wall and in the Kippenberger library collection that is housed in the floors above the foyer.
END NOTES

06. Reed. p23.
07. Reed. p23.
Words and their applications onto physical forms find a special place in the architecture of memorials and in many Māori practices, from art to fortifications. This iteration merges the appreciation of inscribed text from Pākehā and Māori alike with a quote from the New Zealand Wars which warns against deception and lies. The interest in inscriptions in the wars was sparked by an image I came across in a book titled Māori Fortifications by Ian Knight. In the image a post of a pā’s palisade is carved not just with human forms or patterns but with text [fig. 52 & 53]. The text reads ‘ko te wai,’ or ‘who the hell are you?’ an idiom questioning someone’s right of involvement.

Following wars, Māori began to build meeting houses and settlements that were a reaction to the conflict, confiscations and loss happening at the time.1 Followers of the Ringatū movement established by Tē Kooti Arikirangi Te Tūruki, built a meeting house named Rongopai at Waituhi in 1886.2 At this house a style of figurative painting emerged that was previously unseen in Māori buildings. But more interestingly for this thesis, was the application of cryptic word forms in the painted interior. These Latin characters were entwined amongst scenes of a lost Māori Eden – flowering trees and shrubs, flitting birds, and glittering creatures of Māori mythology. Nouns were ascribed to parts of the paintings to denote people, places and events. This is perhaps as a result of the loss of understanding of visual language previously used in the carving tradition. So that future generations could understand more fully the references being made.

By 1888 use of text had spread to lattice panels that lined the walls of the tribal house Porourangi at Waiomatatini.3 It also featured among the rafters of another meeting house opened on 11 April 1888 in Ruatāhuna [fig. 54]. This house was named Tē Whai-a-te-Motu (‘the pursuit through the island’) to commemorate the pursuit of Tē Kooti by government forces through Tē Urewera. The emergence of figurative painting and addition
of text followed a shift in Māori arts at the time from the abstract to the natural. The temporal and spatial shifts illustrated in these paintings suggest that the Māori view of time and space was expanding to include not only customary Māori concepts, but also Western ideas of instants and incidence in the real-time world.4

However, words were present in Māori art and architecture long before being inscribed in Rongotai. In fact they appeared, often in an engaging Roman Script, almost as soon as Māori were literate.5 As mentioned with the Ringatū meeting houses, text was used to identify ancestors in keeping with a culture that privileged whakapapa (genealogy) as an essential aspect of being and belonging. Text also functioned as form of welcome and to preach the goodwill of God.6

Whilst New Zealand’s architects seem to be preoccupied with the form of the whare whakairo, our artists have not shied away from the importance of words to Māori. Shane Cotton explains that, “Words have come to be regarded by many Māori as having the same spiritual powers as traditional Māori iconography, and as a result have superseded the art form itself – image has been supplanted by word.”7 Many of Cotton’s own paintings explore themes surrounding and emanating from the New Zealand Wars. Robert Jahnke writes that Cotton utilised text in his paintings as identity marker, cultural codifier, oratorial subtext, pattern and horizon line. His works from the mid 90s are populated with a reconfiguration of letterforms in an alphabet written out by Ngāpuhi chief Hongi Hika.8 These letterforms are derived from the first printed letters, which themselves evolved as a result of 16th century European printers copying the brush strokes of calligraphers rendering the Bible.9

As words in the intersections of art and architecture have been important to Māori, so have they also to Pākehā. The phrase “Their name liveth forever more” adorns many memorials to those fallen in World War I
around New Zealand. It was popularised by the Stone of Remembrance, designed by Sir Edwin Lutyens for the Imperial War Graves Commission’s war cemeteries. Chris Maclean and Jock Phillips have called this inscription a vain hope. Stating that each generation reads into war memorials its own political and social concerns.  

Unfortunately this generation has no singular significant memorial or physical reminder of the New Zealand Wars to even begin to read into their own concerns; a void the design of this extension aims to fill. Whilst few memorials were built during and immediately after the New Zealand Wars, WWI resulted in a considerable number of memorials being constructed. One such memorial was the Auckland War Memorial Museum, of which the museum in Waiouru would later be closely related in its typology.

The commission of the Auckland Museum reflected a new sense of national pride following the Great War. To commemorate the dead of the war it was decided that the museum would “preserve for future generations the inspiration of the war’s heroism and self-sacrifice.” Unfortunately since before the first stone was laid the RSA felt that the Museum Committee were not honouring the initial intent of the brief which stated that the war memorial aspect would take precedent over the Museum. Eventually the RSA were forced to mount a protest campaign to prevent the War Memorial being subsumed by the Museum. A century later this battle continues with the memorial aspect being mostly lost amongst the competing commercial elements of the museum. It now places a greater emphasis on the ‘visitor experience’. Relegating the memorialisation aspect to simply a ‘story’ alongside Natural History and Human History.

Above the main entrance of Auckland’s museum a quote is carved which remembers soldiers buried in foreign lands: “The Whole Earth is the Sepulchre of Famous Men. They are Commemorated Not only by Columns and Inscriptions in their Own Country but in Foreign Lands also by Memorials Graven Not on Stone but on the Hearts of Men” – Pericles [fig. 55]. Though the architects attempted to use the Greek neo-classicist style to represent the heroic valour of the New Zealand soldier, the Pericles inscription was copied directly from the Columbia University Library in New York. By the time the Museum opened, and even beforehand, neo-classical architecture was out of vogue. Auckland’s greatest monument and best effort to remember those lost would produce no architectural ripple beyond our shore. In their self-published architectural history, the museum claims that the building “is unmistakably of Aotearoa.” This they attribute to the “Māori style ornamentation” around the walls, columns, seats, lifts and ‘light wells’.

The design of this iteration is part of a wider attempt at memorialising the men who fell in our own land in the New Zealand Wars. And whose significance is lost in the shadows cast by the deserved monuments to overseas conflict, found in town squares across the country.
The text selected for the inscription is an excerpt from a letter sent by Te Waharoa to Governor Thomas Gore Browne on January 24, 1861. Wiremu Tāmihana Tarapipipi Te Waharoa (c1805–1866) was a Ngāti Haua leader, teacher and diplomat known to Pākehā as ‘The King Maker’ for his role in establishing the Māori King Movement [fig. 58]. He lived by the principles of Te Whakapono, Te Ture, Te Aroha: be steadfast in faith in God, uphold the rule of law, show love and compassion to all.17 Despite being a man of peace, he was eventually forced into war when the British invaded the Waikato – his offer of mediation rejected. Tāmihana was a remarkable man whose vision of peace and prosperity for his people was disrupted by a conflict he tried to prevent.

Governor Browne had issued a declaration accusing Waikato of violating the Treaty of Waitangi, and requiring Māori submission to the Queen’s sovereignty. Tāmihana wrote a lengthy response, indicating, with reference to Scripture and Māori metaphor, that the King movement was an organisation to control Māori people, and was not in conflict with the Queen’s sovereignty. He then outlined the Māori perspective on events in Taranaki and expressed concern that the governor seemed intent on conflict. Tāmihana wrote more letters to the governor, reiterating that the Māori were not seeking war, and questioning the construction of roads and redoubts between Auckland and northern Waikato. Tāmihana’s concerns were justified soon after the exchange of letters as the Waikato was invaded by the British Army. Following the battle at Rangiriri [see Chapter 2.9] in November 1863, Tāmihana once again sought to negotiate peace, sending his greenstone mere to Cameron as a token of his good faith.

The excerpt chosen is in direct reference to Tāmihana’s perception of events as they played out. Out of context though, it has wider implications for New Zealand’s relationship both to the past, and between Pākehā and Māori. The quote is as follows, “Friend let it be made known; if it is correct, confess it, do not conceal it; if it is false, tell us that we may be aware of it, it is not as though it could be kept secret by hiding it; and now, O friend, do not conceal it.”
The quote is given form by being inscribed on the monumental North facing wall of the extension. Each letter form is pressed deeply into a brass copper-alloy sheeting. Forming a text filled wall with a lively shimmering surface [fig. 61]. This use of brass connects the wall to the brass plaques throughout the existing Army Museum. The car park is relocated from behind the Museum, to across Hasset Drive so visitors now approach the entrance facing the inscription and enter by passing underneath the wall into the semi subterranean foyer. Entrance to museum is protracted by the 40m long forecourt which has the entrance pathway cut into it. This allows a chance for comprehending the inscription and its Māori and English translations. The dual translations allude to the Treaty of Waitangi, and its perceived brokenness which contributed to the New Zealand Wars. At once the translations unify and separate.

Each letter of each word is liberally spaced, abstracting the quote to a flotilla of letters set in a sea of brass. The difficulty inherent in reading the dual translation is central to its potency for it both inscribes and dramatises the uncertainties of living across both cultures.
ENDNOTES


06. Jahnke. 2010. p1


Scarcely a story can be found from the battles of the New Zealand Wars without mention of a flag. To the British a fluttering Union Jack meant dominance and dominion, whilst to Māori it often signalled slavery and defeat. Following the levelling of Kororāreka in 1844, Māori began to create their own flags; some to encourage unity, others to incite war. Their initial attraction was due to a keen interest in signs and symbols. Māori quickly learnt how much importance their Pākehā visitors attached to these bright cloths.¹ In addition Māori recognized the power embodied within an ensign and foresaw the impact they could have on the New Zealand Wars.

During the period of these Wars, the flag was adopted into the Māori architectural cannon – flown from pā or as an occupational marker of their own. The use of flags in conflict has been the focus of some academic attention, and while not primarily about architecture, works such as Bryan & Gillespie’s ‘Transforming Conflict: Flags and Emblems’ traverses the importance of flags in demarcating territory and space.² There is no shortage of New Zealand examples that prove Bryan & Gillespie’s ideas. Hone Heke’s attacks on the flagpole at Kororāreka was driven by the interpretation of the flag as a symbol of claiming possession of land. At the siege of Gate Pā a flag was placed toward the rear of the defensive position, drawing a substantial amount of British artillery fire away from the main body of the Māori contingent. Even today, the flag retains an importance in protests and land marches. To many Māori the land wars are not over, we can look to Tame Iti’s theatrical shooting of the British flag as an example of this [fig. 63].³

In order to understand the importance of flags in the New Zealand Wars we must travel right back to the beginning. In July of 1844 cosmopolitan capital Kororāreka was the seat of New Zealand’s troubles; a fluttering flag overlooking the town was what Māori described as the ‘pūtake o te
riri‘ – the root and fount of the wars. 4 It became the first victim of the long wars which followed. After the signing of the Treaty of Waitangi four years earlier, the flagstaff flying the governments Union Jack on Maiki Hill was felled by Ngāi Puhi chief Hone Heke and his men [fig. 62]. It was re-erected and felled a further three times, and on the last it fell to the ground over a sacked and burning Kororareka. Heke had concluded that the hoisted Union Jack could be taken as the symbol of British sovereignty without causing damage to Māori-European economic relations which he supported. Whilst some discussions tend to focus on chopping of the flagstaff itself, Heke understood that the British valued the flag not its support. Governor FitzRoy called the flagstaff “a mere stick”, and this is sometimes quoted, but he finished the sentence with: “but as connected with the British Flag of very great importance.” 5 Belich summarised: “The amputation of the flagstaffs had substantive implications as well as symbolic significance. If the British could not protect the flagstaff of their largest settlement north of Auckland, what could they protect?” 6

In the day previous to the second felling Hone Heke had visited the Acting-Consul for the United States of America and obtained an American flag. When the flagstaff fell to the Ngāpuhi axe again, Heke raised the stars and stripes on the carved stern-post of his waka. His war party paraded the harbour with Heke at the steering-paddle of the waka, the American flag over his head. From Americans the discontented chief had heard of the successful revolt of their colonies against England, and the lesson was not forgotten. In 1848 he declared that the tūpāpaku (corpse) of the flagstaff at Kororāreka should not be roused to life, because those who had died in cutting it down could not be restored to the land of the living. An attitude he maintained to the day of his death two years later. 7

Kororāreka may have been the first incident involving a flag of the Wars, but it was not to be the last. Hone Heke was by no means representative of all Māori and he found a fierce enemy in Tāmati Wāka Nene. Nene fought against Heke alongside the British, albeit with different intentions. At
the infamous Battle of Ōhaeawai [see Chapter 2.1], the British flag came under attack again. Heke’s ally Pene Taui was under pressure from Wāka Nene’s men and a picket of British troops positioned behind them on Puketapu Hill. Wāka Nene had been flying a Union Jack on the summit of the hill, but the hill was taken in reverse by Māori from the pā, advancing under cover of the forest. Taui’s warriors shot one soldier, seized the field gun, and hauled down Wāka’s flag, which they carried off. A few minutes later Colonel Despard was furious when he saw the captured British ensign run up on the flax halliards of the Māori flagstaff in the pā, below Taui’s makeshift flag – a Māori garment [fig. 65].

Another important incident occurred in 1856 at Pūkawa, on the shores of Lake Taupō. Here a pan-tribal hui (meeting) gathered chiefs from across the Island to lay the foundations for the Kingitanga (Māori King Movement). Convener and Tūwharetoa chief Iwikau Te Heuheu called for a high flagstaff to be erected on the marae at Pūkawa. At the masthead he hoisted what came to be known as the Flag of the United Tribes of New Zealand [fig. 64]. The King movement went on to use many different flags throughout the Wars.

Flags served a great purpose for the Kingites in stirring up a patriotic support for the movement amongst the often divided tribes. At the Paetai meeting of 1857 Wiremu Tāmehana and his Ngāti Haua set up on the marae or village campus the flag of the newly selected King. This ensign was white, with a red border and two red crosses, symbolic of Christianity; it bore the words “Potatau King o Niu Tīrenei.” Speeches beneath the flag breathed intense patriotism. “I love New Zealand,” cried one chief. “Let us have order, so that we may increase like the white man. Why should we disappear from the land? Let us have a king, for with a king there will be peace among us. New Zealand is ours — I love it.” Another made an eloquent plea for independence and nationalism. “Fresh water is lost when it mingles with the salt,” he said. “Let us retain our lands and be independent of the Pakeha.”

By 1860 the British had caught on to the devotion of Māori to flags and their symbols. To such an extent that the first Victoria Cross of the Wars was awarded not for a pre-eminent act of self-sacrifice; but to a lad who won a dare to ‘capture the flag’. This exploit happened during the battle of Waireka where along with the game of capture the flag, the attackers played a superior form of leapfrog to traverse the pā’s palisade. Three flags bearing Māori war-devices were seen by the British waving above the smoke hazed palisades. In response to a shout from his Captain: “Ten pounds to the man who pulls down those flags!” William Odgers charged through and hauled down the ensigns. One was a flag with the emblems of Mount Taranaki rising above the Sugarloaf Rock, with the letters M.N. (Māori Nation), the figure of a bleeding heart and star, or the sun, on a red ground. Māori explained these symbols as meaning that the land from Taranaki to the sea was the land of their forefathers; that the heart of the Māori was set upon having this land; and that the sun or star was the eye of the Deity. On the day after Waireka aboard the “Niger”, the Royal Navy flew the three captured Māori flags at her mainmast-head.
Flags are not usually considered to be part of architecture, instead left to the field of vexillology. But the ignoring of flags in the New Zealand context is seen by Bill McKay as part of a wider issue regarding the recognition of anything other than the whare whakairo as Māori architecture: “Gener-ally Westerners have admired the highly crafted whare whakairo (meeting house) and are baffled by some other buildings . . . that seem to lack tradi-tional motifs or indigenous authority. The processes of Pākehā selection and representation have reflected the political and cultural concerns of the times. For example, our knowledge of Māori architecture in the post contact period has been channelled by politics, museums and texts into a focus on a stereotyped form of meeting house, rather than exploring the diversity of buildings, structures and flags that often trade forms, materials and motifs across cultures.”

Deidre Brown provides one exception to this with her work on niu poles which places flags in an architectural context. Niu poles were a combination of church and ancestor architecture, a place for worship that could be quickly erected during times of conflict. Brown notes how ‘Pai Marire flag motifs, which were an integral part of niu construction, were an important development in modern Māori meeting house construction.’

Artists such as Shane Cotton, Para Matchitt, Laurence Aberhart and Leigh Davis have all drawn upon flags from the New Zealand Wars in their work [fig. 69]. Of particular interest to the New Zealand artist is how European signs were uprooted from their original contexts by Māori, who then re-assigned new meanings to them. The common example is the appropriation of playing card symbols employed on many flags of East Coast Māori and on a building named Hiona in Maungapōhatu. The diamonds and clubs encircling Hiona may have been inspired by the same symbols which were half-hidden in the leaves of trees, vines and amongst colourful flowering shrubs in the painted interior of Rongopai.

While a viewer may feel that they can ‘read’ these symbols, the fact that the original meanings have been removed and replaced complicates any reading by any but those who did the removal and replacement. Attempts at ascribing decisive meaning to these symbols generally can never be certain. Especially in the case of the Mōrehu, followers of the Rātana Church, whose leaders appropriated playing card emblems to symbolise their spiritual inheritance, but gave the icons new meanings to illustrate their theo-logical differences. Mōrehu designers used celestial symbols, playing card motifs, and text to demonstrate their movement’s place within the Mōrehu whakapapa. Designers also validated the place of their buildings within...
Fig. 69. Plan detail, symbols of the Flags iteration embedded in the floor plane.
the Mōrehu architectural whakapapa by repeating the symbols of earlier movements, and combining them with their own motifs. By appropriating these symbols from earlier movements, the designers were clearly stating their architectural and spiritual inheritances. Celestial symbols and card motifs expressed abstract concepts which were open to multiple, and personal, interpretations.

Architecture can learn from the flags of the New Zealand Wars in two different ways then. Firstly, their role in defining and claiming space as part of resistance or occupation. A method which has had uninterrupted usage since the beginning of the Wars. And secondly, how flags engaged in the cross-cultural exchange of signs and symbols throughout the New Zealand Wars. This was taken forward by architects Te Kooti and Rua Kēnana in their meeting houses, but all but stopped after them. Reinjecting flags into New Zealand architectural discourse reinvigorate a previous practice as well as deepen our understanding of a very modern occurrence.

To entrench the cross-cultural exchange of signs and symbols from the flags of the New Zealand Wars, I have arranged six of these in a repeating pattern. This pattern is spread across the gallery floor on level 1 where each symbol is set in bronze into the charcoal black tiled floor.

The pattern begins first with a Korōria (glory), in the shape like the half of a mere – pounamu cut longitudinally. Second, a sun symbol – used on Mōrehu flags to represent Christianity. Third, a full profile of a mere-pounamu (greenstone club). Fourth, a diamond within a square – often symbolizing one of the three main islands of New Zealand. Fifth a four point star or flower with curved sides to each point. And sixth, a slender Latin cross – the cross being the most common symbol on Māori flags of the Wars. Each symbol is taken from a Māori flag of the New Zealand Wars, including Kīngitanga, Mōrehu and tribal flags. As such each symbol is not ascribed a particular meaning, rather the viewer is left to read them themselves.
END NOTES

03. ‘Flying Flags in the Field of Architecture’
06. Belich. p33.
08. Cowan. p60.
10. Cowan. p232
13. Cowan. p181
15. ‘Flying Flags in the Field of Architecture’
20. ‘Flying Flags in the Field of Architecture’
Rāpaki is the noun which describes a traditional Māori garment of woven harakeke, worn from the waist to the knee [fig. 70]. Whilst Māori had worn it for centuries, it took some time for Pākehā to concede that the rāpaki was a garment honed for Aotearoa – and shed their trousers for what is effectively a skirt. Colonialists assigned it the slightly more masculine term ‘waist shawl’. Through the course of the Wars, it evolved to became one of the early examples of a hybrid Pākehā and Māori form. By meshing the harakeke rāpaki and woollen blanket, it became the garment of choice for Pākehā and Māori warrior alike [fig. 71 & 72].

The story of the rāpaki is one of attire and adaptation to Aotearoa’s terrain. British commanders dreaded the New Zealand bush, it was a terrain unfamiliar to them. They preferred to square up to their enemy on open ground where they were more comfortable in conflict. Historian Danny Keenan explains: “the bush was just this great big primordial thing they were afraid of. It’s so thick, so terrible.” For much of the New Zealand Wars the British were forced to toil over unmapped land in search of a flitting enemy, through unroaded swamps, bush, ranges, and unbridged rivers. Each man adorned with conspicuous red jackets, wrapped with radiant sashes and capped with shining regiment badge. Their army was slow to adapt and the British soldier stood out from the bush like a lighthouse in the dead of night.

Arguably the Colonial Defence Force were more successful in the bush than their imperial counterparts. J.M. Roberts of the infamous Forest Rangers disclosed: “This [the pursuit tactics of the British commanders] was not the way of the colonial soldier who knew his business.” “We learned very early to look on a tree as a friend. If it could shelter a Maori it could also shelter us.” The Forest Rangers were part of a wider Colonial corps of Rangers. An elite fighting group raised to beat the Māori at their own game, on their home ground. They hold a page in New Zealand’s
fading history books largely due to one of their leaders — Gustavus von Tempsky. A man so surrounded by mystery, romance and intrigue we are still not sure if he was a hero or villain. He was like a fame seeking version of Corporal Willie Apiata, a more reluctant hero of today’s SAS. Indeed the SAS actually trace their roots back to the Forest Rangers, and are skilled in the same areas – tracking, close-quarter combat and intelligence gathering. Part of von Tempsky’s legacy is an exercise carrying his name, executed on the fifth day of the SAS selection course held in Waiouru. ‘Exercise Von Tempsky’ consists of 24 hours of marching in either a swamp or sand dunes while carrying rifles and alternately one or two 20 litre jerrycans and a 35 kg pack. Mimicking the conditions the Forest Rangers were subjected to in the New Zealand Wars and their resultant toughness. Their tough image was propounded by writers such as George Hamilton-Browne: “These men, hardened by incessant exposure, during the summer months carried no blankets, packs nor rations, neither did they wear boots nor hats, but lived on what they could find, and when they halted, just threw themselves on the ground and slept like animals. This unnatural training had rendered them capable of covering immense distances, and going for marvellously long intervals without food, sleep or rest. Yet they were born marauders, could and did steal everything and anything that came their way.”

Initially the Rangers were issued with full uniforms, but in the wet bush the trousers quickly rotted. So they improvised their own uniforms by using rāpaki. This irregular dress enhanced their public image as that of a rough and ready band of adventurers. Roberts describes Pakehā adopting to the Māori fighting methods and dress: “. . . in the later campaigns Pakeha fought Maori quite in the Maori manner, skirmishing from tree to tree, adopting ambush and surprise tactics, and taking to the Māori bush
Fig. 7. Armed Constabulary on the warpath with both harakeke & blankets lashed.
costume and wearing shawl or blanket kilt-fashion, like the native rāpaki, instead of trousers.7

This adoption of clothing is a significant moment within the New Zealand Wars as it highlights a Pākehā concession to a Māori concept. Whilst the British were quick to recognize Māori chivalry and courage, they did not give them recognition for military intelligence or technology. Within the New Zealand Wars the rāpaki can certainly be framed as technology: the science of the application of knowledge to practical purposes. This lightweight garment allowed Māori to move quickly through the bush with an ease of movement incomparable to trousers. It shed water naturally but dried easily over a fire when saturated. Army issue trousers rotted in the damp forests, ripped easily and were difficult to repair by comparison. Importantly rāpaki allowed rapid crossing of rivers, streams and movement through swamp. Whereas trousers had to be rolled up, removed or worn heavy and soaking until dried. Just as the pā was constructed in rapport with the land, so Māori warriors dressed with a harmony in relationship to the land.

Rangers of the Colonial Defence Force began to wear the Māori rāpaki once they understood its advantages. Soon they forsook the woven harakeke for woven wool in the form of blankets. Worn wrapped around the waist, the tartan pattern of most contributed to their similarity in appearance to the Scottish kilt, which can also be seen in later photographs of the Armed Constabulary [fig. 76]. Both kūpapa and anti-government Māori would adopt the blanket versions, possibly cheaper and more plentiful than woven harakeke once weaving skills waned. Creating a Māori form in Pākehā material – perhaps one of the first hybrid forms of New Zealand used by both cultures. The new rāpaki was a camouflage, helping them to blend into the challenging landscapes of the country.
Fig. 76. A rare photograph showing a covering party variously wearing the woven rāpaki, blanket rāpaki and kilt.
For this iteration I wanted to design an architecture of softness which would reflect the tasselled edges of both the harakeke or wool rāpaki. The form re-iterates how the rāpaki sits on the body – sloping down and out from the waist with the tasselled edge then falling plumb to the ground, creating a distinction between the sloping main form and vertical tassels. The resultant design iteration resembles a truncated cone, clad in a thick woven fabric with subtle colour variations [fig. 77]. The interior is intersected with split and full level floors of semi opaque polycarbonate. Allowing light to transmit through from the circular skylight formed when the walls of the rāpaki reach the roof. Entry to the interior of the form can be gained by passing through the suspended partition of concentric cords. Arced reflective pools trace edges of the partitions to suggest circulation routes. Emulating the way the rāpaki was worn to the knee in order to stay dry over rivers – the suspended cords of the iteration fall just above the reflective pools. The scaling up of the rāpaki dramatizes the form, materiality and tasselled edge of a significant hybrid development within the New Zealand Wars.
END NOTES


04 Martin. p14.


06 Von Tempsky’s Ghost.

07 Cowan. p25
Archaeologist Nigel Prickett and historian James Belich, and others like them, have delivered their warning calls that the landscape of the New Zealand Wars is fading, along with our knowledge of it. Meanwhile the building housing the national Army Museum pronounces a brutalist aesthetic derived from fortifications, not of our own land, but of the concrete bunkers of the World Wars. In order to respond to the collective memory loss, it was imperative for this research to uncover and analyse significant elements from the wars. The goal of this research was that it would become translated into architectural iterations that could form a new wing to the New Zealand Army Museum.

The New Zealand Army Museum was the most obvious site to work with. Architecture can never tell the full story of war and its effects due to the inherent difficulties in ‘reading’ architecture. Therefore selecting the Army Museum allows the design to be fleshed out with the concrete evidence of artefacts and exhibitions. Removing the Kippenberger Pavilion and rehousing its library and research facilities within the extension highlights the importance of taking away, rather than endlessly adding to. The original two stages of the Army Museum is probably Warren & Mahoney’s last true example of a concrete Brutalism, strong and visually seductive. Therefore whatever addition was made needed to expand Warren & Mahoney’s hard material palette and formal symmetry in order to relate old and new. The scale and architectural language of the existing building provided a framework within which the design iterations could develop and merge; without being overshadowed or overly constrained.

Iteration 6 ‘Blurred Earthworks’ provided a clear entrance point to the extension, now the single visitor entry point for the whole museum. The forecourt also goes some way to recreating what Miles Warren felt was the most successful part of the original building. Iteration 6 meets Iteration 7 ‘Inscriptions’ square on - rising perpendicular to the forecourt, up to the
height of the existing museum’s parapets, is the northern wall embedded with letterforms. From the entry ramp cut into the forecourt, the letterforms arrange into the words of Tāmihana’s 1864 exhortation. Their dual translation inscribing and dramatising the uncertainties of living across both cultures.

Enclosing the extension’s interior on the west and east sides is Iteration 1 ‘Ōhaeawai Pā’ and Iteration 3 ‘Rangiriri Pā’ respectively. Iteration 1 runs alongside the Desert Road and becomes an architectural billboard for the extension. Where Warren & Mahoney’s museum fulfilled the brief of a castle surrounded by a moat, the extension delves into the innovative architectural language of Ōhaeawai Pā’s palisades. Thus the billboard image it presents is one of deception, a masquerade, and hardly static - its zig zag of steel cables swaying in response to the winds of the Waiouru plains. Parallel to this on the eastern side is the tubular steel grid of Iteration 6, tracing the remains of Rangiriri Pā and rotated vertically to become imposing as the Pā’s original sheer earthen walls. Part of where the grid curves away from its polycarbonate outer skin, forms a courtyard with sliding doors giving access and views eastwards over the plains. This gap holds tables and chairs and is connected via a small flight of stairs down into the café which is off to the side of the semi subterranean foyer floor. The café became a way to utilise the solid and void patterns produced by experimenting with the labyrinth like concealed nature of Pukehinahina Pā in Iteration 2.

Cantilevering over the foyer and café is the rehoused Kippenberger library and research offices. Its underside an electric blue sky extending over the Pukehinahina Pā iteration and enticing viewers in from the entry cut. From the foyer a wide staircase leads visitors up to the exhibition hall floor where they may note the symbols cast in the dark floor. Some will appear familiar, others foreign, but each is taken from the Māori war flags which arose in the conflict. By reading their own meaning into each icon, the viewer extends the cross cultural exchange of symbols employed by Māori in the wars. These floor symbols are the result of the research and design of Iteration 8 ‘Flags’. Across the floor of the extension rise three truncated conical forms which are translations of the rāpaki, the Māori garment explored in Iteration 9 ‘Rāpaki’. These form smaller exhibition spaces within the larger space of the exhibition hall. Each rāpaki form is split into three floor levels which are connected by bridges leading back to the vertical circulation towers at the south of the hall.

Iteration 5 ‘Towers & Weatherboards’ takes advantage of the opportunity afforded by continuing the symmetry of Warren & Mahoney’s original building. Reflecting the tower forms at the meeting point of the two buildings visually connects new with old. Simultaneously the circulation towers draw on the weatherboard clad towers of frontier churches, fortified by settlers. Cutting loopholes through their walls which they hoped would offer protection from Māori musket fire. The summit of the walls align with the red tipped peaks of the skylights, translated from the research of Iteration 4 ‘Bell Tents’. Rows of the skylights cluster over the Kippenberger research office, admitting diffuse light to the interior in big circles. These transient tents were a physical manifestation of British order and occupation, and are reinterpreted and installed here to make the unseen seen.

The extension to the museum arises from the stories of our own wars fought on our own land, speaking to each visitor and each person driving past on New Zealand’s State Highway 1. The translations and synthesis of each iteration coalesce to present a new New Zealand architecture in dialogue with the existing museum. Civic architecture such as the New Zealand Army Museum has a specific part to play in constructing national identity; in order to move forward we must come to terms with what we have tried to forget – translating the wars into architecture brings a clarity to our existence in the present.
Fig. 80. ‘X’ marks Waiouru in the centre of the North Island.
Fig. 81. 'X' marks the museum site, below the Waiouru township.
Fig. 82. ‘X’ marks the location of the New Zealand Army Museum alongside State Highway 1.
Fig. 83. Site plan showing extension to the Army Museum to the north of original building.
Fig. 85. LEVEL 1 PLAN – 1:500
Fig. 87. LEVEL 2 PLAN – 1:500
Fig. 88. ROOF PLAN – 1:500
Fig. 88. WEST ELEVATION – 1:500

Fig. 89. EAST ELEVATION – 1:500
Fig. 90. NORTH ELEVATION – 1:500
Fig. 91. SECTION – 1:500
Fig. 94. North west view
Fig. 96. East view at night.
Fig. 97. Entrance.
Fig. 98. Interior view showing two of the Rāpaki iteration exhibition spaces.
Fig. 99. Interior view.
Fig. 100. Interior view showing Rangiiri iteration and Rapaki iterations behind.
Fig. 101. Interior view showing the rehoused Kippenberger library exterior
GLOSSARY OF TERMS
**halliard**  a line for hoisting a flag.

**hapū**  kinship group, clan, subtribe.

**hui** gathering, meeting, assembly, seminar, conference.

**kānuka** white tea-tree, Kunzea ericoides - has small white flowers.

**kererū** New Zealand pigeon, Hemiphaga novaeseelandiae - a large green, copper and white native bush pigeon.

**Kingitanga** Māori King movement, - a movement which developed in the 1850s.

**Kingite** persons loyal to the Māori King movement.

**kiritangata** warriors skin, referring to a line of stockaded timbers.

**kapapa** passive, neutral or pro-government Māori.

**mere** a short, flat weapon of stone, often greenstone.

**Maginot Line** heavy defensive fortifications erected by France along its eastern border in the years preceding World War II.

**Māorehu** followers of the Rātana church.

**niu pole** Pai Mairire pole used in their religious ceremonies, possibly derived from flag poles.

**pā** fort, fortified village, field fortification.

**Pākehā** New Zealander of European descent.

**pekerangi** outermost palisade, screen, barrier.

**puriri** puriri, Vitex lucens - a large spreading tree of the northern North Island.

**redoubt** an isolated work forming a complete enclosure of any form, an independent earthwork built within a permanent fortification.

**rua** pit, anti-artillery bunker.

**stockade** a defensive barrier consisting of strong posts or timbers fixed upright in the ground.

**tāpara** double-barrelled gun.

**tahu** war party, army.

**tawai** silver beech, Nothofagus menziesii - a tall tree with small alternating leaves.

**waka taua** war canoe.

**whare whakairo** carved house, meeting house.
LIST OF FIGURES
1.1 Figure 01. Greg Semu, photo-collage image from 'Battle of the Noble Savage series,' 2007.
Figure 02. New Zealand Wars sites visited on field trip. [Map by author]
Figure 03. New Zealand Army Museum as it would have appeared in 1978. [Image by author]

1.2 Figure 04. Queens Redoubt, Pokeno, Auckland; 2 July 2011. [Photograph by author]
Figure 05. Creator unknown, ‘Fifty ton Centurion tank . . .,’ in Mary Mountier, “Army Museum,” Designscape 109 (1978), p44.
Figure 06. Stage I and II of the New Zealand Army Museum; 9 July 2011. [Photograph by author]
Figure 07. Museum from the north west; 11 July 2011. [Photograph by author]

2.1 Figure 09. 'Thomas Biddulph Hutton, 'Owharawai. Pa of Hone Heke,' 1845, Ref: E-137-q-006, Alexander Turnbull Library. [Detail I].
Figure 10. Thomas Biddulph Hutton, 'Owharawai. Pa of Hone Heke,' 1845, Ref: E-137-q-006, Alexander Turnbull Library. [Detail II].
Figure 11. Cyprian Bridge 'View of the left angle of Heke's pah at Ohaiaiawi,' 1845, Ref: A-079-005, Alexander Turnbull Library. [Detail].
Figure 12. John Williams, 'Ohaiawai, N.Z. 1 July 1845,' 1845, Ref: E-320-f-002, Alexander Turnbull Library.
Figure 13. Iteration 01: Ōhaeawai Pā concept image I. [Image by author]
Figure 14. Iteration 01: Ōhaeawai Pā concept image II. [Image by author]
Figure 15. Iteration 01: Ōhaeawai Pā concept image III. [Image by author]
Figure 16. Iteration 01: Ōhaeawai Pā concept image IV. [Image by author]
Figure 17. Interior view showing two of the Rāpaki iteration exhibition spaces. [Detail I] [Image by author]
Figure 18. West view. [Detail] [Image by author]

2.2 Figure 19. Horatio Gordon Robley, 'The Gate Pa,' 1864, Ref: B-077-027, Alexander Turnbull Library. [Detail I]
Figure 20. 'Gate Pa - Taken from an engraving in the Illustrated London News of July 23rd, 1864,' in Gilbert Mair, The Story of Gate Pa, April 29th, 1864. (Tauranga, N.Z.: Bay of Plenty Times, 1937), p16.
Figure 21. Ground plan sketch of the main works of Pukehinahina Pa. [Sketch by author]
Figure 22. Horatio Gordon Robley, 'The Gate Pa,' 1864, Ref: B-077-027, Alexander Turnbull Library. [Detail II]
Figure 23. Looking down on the Pukehinahina Pā iteration from the exhibition floor. [Image by author]

2.3 Figure 24. Charles Heaphy. 'Naval attack at Rangiriri,' 1863, Ref: A-145-004, Alexander Turnbull Library. [Detail]
Figure 25. Rangiriri Pā, Rangiriri, Waikato; 3 July 2011. [Photograph by author]
Figure 26. Edward Thomas Brooke, ‘Maori entrenchments at Rangiriri. . .,’ 1863, Ref: PAColl-3033-1-2, Alexander Turnbull Library. [Detail]
Figure 27. 3D mapping of Rangiriri Pā remnant. [Image by author]
Figure 28. Iteration 03: Rangiriri Pā concept image. [Image by author]
Figure 29. Iteration 03: Rangiriri Pā image. [Image by author]

2.4 Figure 30. Sharp & Sons, ‘Constabulary in Full Dress,’ c1870, Ref: PHO2002-842, Puke Ariki Museum.
Figure 32. Creator unknown, ‘Selby's Farm, Pokeno, Waikato, showing an Imperial forces camp,’ c1861, Ref: PA1-q-250-37, Alexander Turnbull Library.
Figure 33. Iteration 04: Bell Tent image. [Image by author]

2.5 Figure 34. Pukekohe East Church, Pukekohe East, Auckland; 3 July, 2011. [Photograph by author]
Figure 35. Hiona St Stephens Church, Opotiki, Bay of Plenty; 4 July, 2011. [Photograph by author]
Figure 38. Arthur Herbert Messenger, ‘The attack on the Pukekohe East Church stockade 14 September, 1863,’ 1923, Ref: PUBL-0054-1-270, Alexander Turnbull Library. [Detail]
Figure 39. Iteration 05: Towers & Weatherboards concept image. [Image by author]
Figure 40. Iteration 05: Towers & Weatherboards image I. [Image by author]
Figure 41. Iteration 05: Towers & Weatherboards image II. [Image by author]

2.6 Figure 42. Creator unknown, ‘Anglican Church at Ohaeawai,’ 1922, Ref: PAColl-8864, Alexander Turnbull Library.
Figure 43. Creator unknown, ‘The Church and Battlefield at Ohaeawai, Bay of Islands,’ in Edmund L. Reed “About a New Zealand Battlefield: Historic Ohaeawai,” The New Zealand Railways Magazine 14.3 (1939), p23.
Figure 44. Edward Thomas Brooke, ‘Plan of Paterangi Pa,’ 1869, Ref: PUBL-0175-01, Alexander Turnbull Library.
Figure 46. Paterangi, Ngahinapouri, Waikato; 7 July 2011. [Photograph by author]
Figure 47. Concept sketch of ‘blurred earthwork’ iteration interaction with northern wall. [Sketch by author]
2.7 Figure 52. Creator unknown, ‘A section of the palisade. . .’ in Ian Knight, *Maori Fortifications*, (New York: Osprey, 2009), p24.

Figure 53. Creator unknown, ‘A section of the palisade. . .’ in Ian Knight, *Maori Fortifications*, (New York: Osprey, 2009), p24. [Detail]

Figure 54. Sydney Mead, ‘Eleventh rafter of the wharenui Te Whai-a-te-Motu,’ 1970, Matapihi, The University of Auckland Library.

Figure 55. Auckland War Memorial Museum, Parnell, Auckland; 3 July 2011. [Photograph by author]

Figure 56. St John’s Graveyard, Te Awamutu, Waikato; 5 July 2011. [Photograph by author]

Figure 57. Opepe Graveyard, Opepe, Waikato; 1 July 2011. [Photograph by author]

Figure 58. Charles Henry Monkton, ‘Wiremu Tamihana Tarapipipi Te Waharoa. . .’; Ref: 1/2-005322-F, *Alexander Turnbull Library*.

Figure 59. Inscription text. [Image by author]

Figure 60. Iteration 07: Inscriptions concept sketch. [Photograph and sketch by author]

Figure 61. Iteration 07: Inscriptions image. [Image by author]

2.8 Figure 62. Arthur David McCormick, ‘Heke fells the flagstaff at Kororareka,’ 1908, Ref: A-004-037, *Alexander Turnbull Library*.

Figure 63. Still from Robert Pouwhare, ‘Tuhoe - History of Resistance,’ *Google Video*.

Figure 64. James Laurenson, ‘United Tribes Ensign,’ 1942, Ref: MS-Papers-0009-09-01, *Alexander Turnbull Library*.

Figure 65. John Williams, ‘Ohaia, N.Z. 1 July 1845,’ 1845, Ref: E-320-f-002, *Alexander Turnbull Library*. [Detail]

Figure 66. Shane Cotton, ‘Needlework,’ 1993.

Figure 67. Sketches of Laurence Aberhart’s ‘Hau Hau Flag’ photographs. [Sketch by author]

Figure 68. Gilbert Mair, ‘Te Kooti’s flag, Te Wepu,’ c1921, Ref: A-173-031, *Alexander Turnbull Library*.

Figure 69. Plan detail, symbols of the Flags iteration embedded in the floor plane. [Drawing by author]

2.9 Figure 70. Creator unknown, ‘Rapaki (kilt),’ c1850, Ref: ME012029, *Te Papa Collection*.

Figure 71. Rev Frederick Thatcher, ‘Te Kanapu Haerehuka,’ 1850, Ref: PA1-q-232-10-3, *Alexander Turnbull Library*.

Figure 72. Creator unknown, ‘Edward Lofley,’ 1870, Ref: 1/2-044655-F, *Alexander Turnbull Library*.

Figure 73. Samuel Calvert, ‘N Z Armed Constabulary,’ 1871, Ref: PUBL-0047-1871-43-01, *Alexander Turnbull Library*. [Detail]

Figure 74. Creator unknown, ‘Armend Constabulary Group in Bush Clothing,’ 1878, Ref: 1/2-022866-F, *Alexander Turnbull Library*.

Figure 75. Creator unknown, ‘Members of the New Zealand Armed Constabulary,’ c1879, Ref: PAColl-4327-1, *Alexander Turnbull Library*.
Figure 76. Sharp & Sons, ‘A Covering Party in the Bush,’ c1870, Ref: PAColl-6014-1-17, Alexander Turnbull Library.

Figure 77. Interior view showing two of the Rāpaki iteration exhibition spaces. [Detail II]. [Image by author]

Figure 78. Iteration 09: Rāpaki circulation concept sketches. [Sketch by author]

Figure 79. Iteration 09: Rāpaki concept sketch. [Sketch by author]

Figure 80. ‘X’ marks Waiouru in the centre of the North Island. [Map by author, derived from Google Maps]

Figure 81. ‘X’ marks the site below Waiouru township. [Map by author, derived from LINZ]

Figure 82. ‘X’ marks the location of the New Zealand Army Museum alongside State Highway 1. [Map by author, derived from LINZ]

Figure 83. Site Plan. [Drawing by author]

Figure 84. Level 0 Plan – 1:500. [Drawing by author]

Figure 85. Level 1 Plan – 1:500. [Drawing by author]

Figure 86. Level 2 Plan – 1:500. [Drawing by author]

Figure 87. Roof Plan – 1:500. [Drawing by author]

Figure 88. West Elevation – 1:500. [Drawing by author]

Figure 89. East Elevation – 1:500. [Drawing by author]

Figure 90. North Elevation – 1:500. [Drawing by author]

Figure 91. Section – 1:500. [Drawing by author]

Figure 92. South west view. [Image by author]

Figure 93. West view. [Image by author]

Figure 94. North west view. [Image by author]

Figure 95. North east view. [Image by author]

Figure 96. East view at night. [Image by author]

Figure 97. Entrance view. [Image by author]

Figure 98. Interior view showing two of the Rāpaki iteration exhibition spaces. [Image by author]

Figure 99. Interior view. [Image by author]

Figure 100. Interior view showing Rangiriri iteration and Rāpaki iterations behind. [Image by author]

Figure 101. Interior view showing the rehoused Kippenberger library exterior. [Image by author]
BIBLIOGRAPHY


