TRIBAL GUNS, TRIBAL GUNNERS

A Study of Acculturation By Maori of European Military Technology

During the New Zealand Inter-tribal Musket Wars.

Thesis presented in
fulfilment of the requirements
for the degree of
Master of Philosophy in History

By

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February 1997

ABSTRACT

The Musket Wars were New Zealand's longest and most costly war. Some 20,000 Maori perished in the raids, battles and sieges that convulsed the tribal societies during the 1820's and 1830's. The rise of powerful musket armies set in train forty major hekes or tribal migrations that emptied vast reaches of country by 1840, paving the way for European settlement that proceeded largely unopposed until the 1860's.

There is little known about the nature of Maori warfare in this period for the Musket Wars have yet to receive the same kind of intense study currently being given by New Zealand historians to the Northern and New Zealand Wars. While other nations have conducted exhaustive research into the military history of their indigenous people, the Musket Wars remain New Zealand's least known war.

The paucity of information on inter-tribal; warfare in this period is sourced in the fact that native warfare was actively discouraged by the missionaries, judged barbaric by most early visitors and regarded as an inferior form of warfare by settlers and English military men. Later nineteenth century writers perpetuated a distorted view of the Musket Wars as chaotic inter-tribal conflicts in which Maori fought and destroyed Maori. This distorted view has its origins in the two widely divergent systems of values that operated in nineteenth century New Zealand and in the dominance of Victorian ideas about race and colonialism.

This thesis is revisionist only in its attempt to demolish the entrenched colonial view of Maori musket warfare as disordered and exclusively Maori. It endeavours to fill specific gaps that exist in the research on this period by examining the role and purpose of the European gun trading enterprise in New Zealand and the extent of European involvement in Maori warfare. The thesis explores the deployment and effectiveness of European guns during the three phases of Maori warfare that characterise the period; predatory raiding, the great rakau-musket battles and the musket to musket conflicts of the 1830's. The thesis also develops the theme that while the Musket Wars were shaped by non-Maori influences they were distinctly Maori in style.

While the bulk of evidence is provided by contemporary European observers and nineteenth century historians, every attempt has been made to provide a more balanced picture of Maori warfare by reporting Maori experiences wherever possible. The thesis consequently draws on current Maori oral testimony, the evidence of contemporary Maori eyewitness and the substantial and well developed body of written tribal history currently available.

The Musket Wars represent a fascinating but largely forgotten military age in New Zealand where Maori armies of unprecedented size employed powerful armaments of flintlock guns and ships cannon on long distance campaigns against remote enemies. This period has provided a unique opportunity to research the ways an indigenous warrior society acculturated European firearms technology in established tribal rituals and in warfare, independent of European military influences and in a purely Maori context. Most importantly the Musket Wars have provided the opportunity to examine Maori tactical developments through the critical stage between classical Maori warfare and the clashes with British and Colonial forces during the Northern war of 1845 and New Zealand wars of the 1860's.

ACKNOWLEDGEMENTS

I have been assisted by many people and institutions during my research for this thesis. I wish firstly to thank my chief supervisor Associate Professor Laurie Barber for his guidance and for imparting some of his passion for New Zealand military history. My thanks to Professor Kenneth Coates who taught me a great deal about writing coherent and readable history.

Other members of the University of Waikato History Department deserving special acknowledgement are Doctor Simon Burrows and Cynthia Piper who provided valuable opportunities to present and discuss my research with staff and students. Philip Andrews of *New Zealand Legacy* and Peter Oldham of *The Volunteers* provided opportunities to test my ideas in published form.

I have been privileged to talk with many people who have made available their time and their tribal knowledge on the role of na purepo (the great guns) in Maori society and in warfare, in particular, Hare Reihana of Ngati Hine at Waiomio, Desmond Kahotea of Ngati Pukenga at Tauranga, and Toea Rongo of Ngati Tamainui at Waingaro.

My thanks to Heather Lindauer at the Russell Museum, Mary Donald at Taranaki Museum, Rose Young, Nigel Prickett and Myf Anwy Eves at Auckland War Memorial Museum, Teina Jordan at the Whakatane District Museum and Gallery, Karl Gillies at Southland Museum and Art Gallery, Rod Bourke at Te Waimate Mission House, and Alec Griffiths of the Hokianga Historical Society.

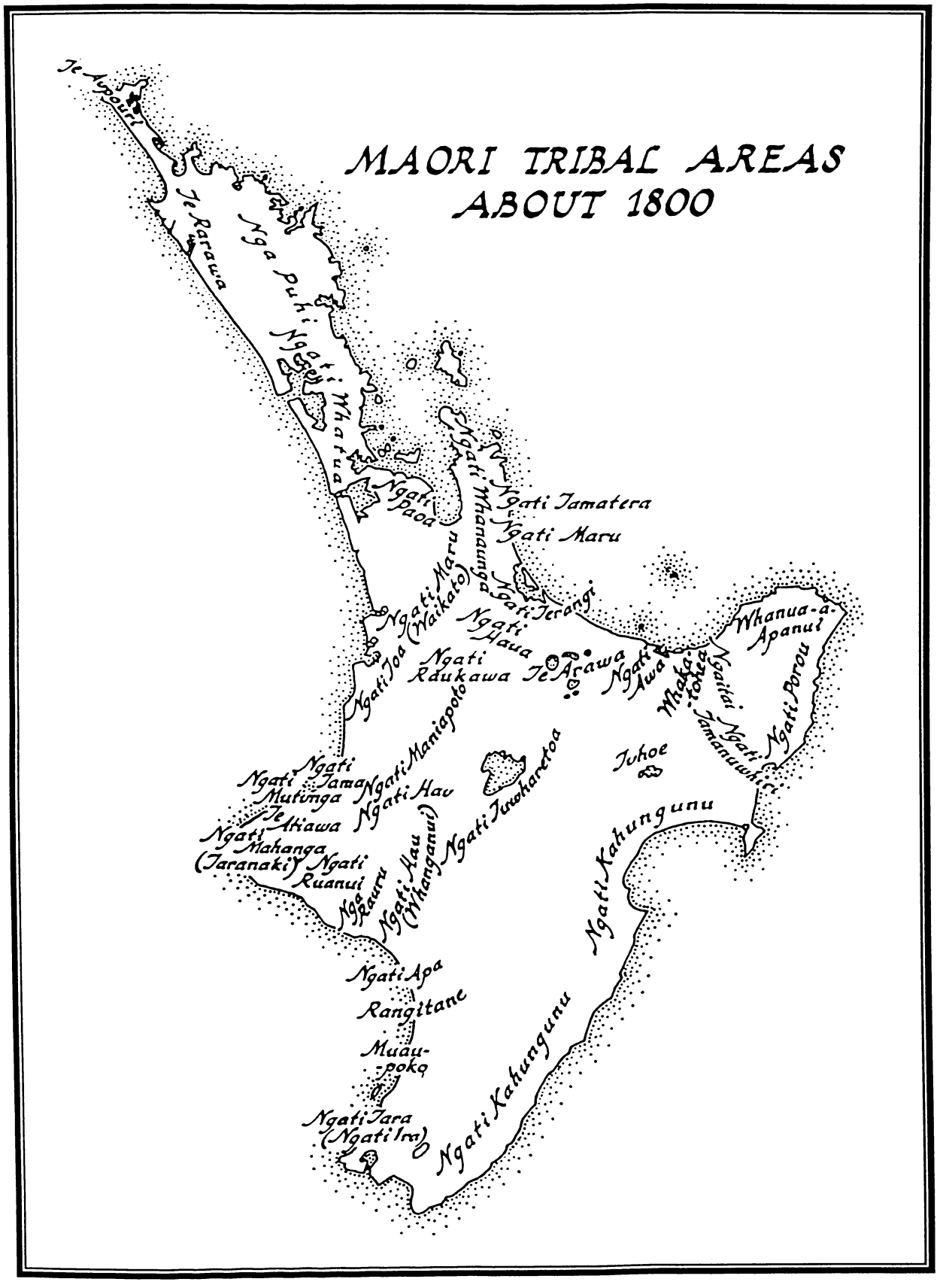
Lastly, but most importantly, thanks to my wife Helen for her patience and support during the two years this research has dominated my life.

CONTENTS

	Abstract	i
	Acknowledgements	iii
	Table of Contents	iv
	List of Maps and Illustrations	v
Chapter One	Maori Trade Guns	1
Chapter Two	The Flintlock Guns	26
Chapter Three	Proficiency with Guns	39
Chapter Four	Repair and Maintenance	51
Chapter Five	The Musket Armies	66
Chapter Six	Foreign Fighting Men In Expeditions of War	88
Chapter Seven	The Kawau Maro or Flying Wedge	104
Chapter Eight	The Tribal Artillery	118
Chapter Nine	Tribal Guns, Tribal Gunners	139
Chapter Ten	Acculturating the Great Guns	151
Chapter Eleven	The Artillery Campaigns	162
Chapter Twelve	Tribal Defensive Batteries	178
	Conclusion	195
	Bibliography	197
	Glossary	206

LIST OF MAPS AND ILLUSTRATIONS

Maps of Tribal Areas 1800	vi, vii
Flintlock Trade Musket (hakimana)	25
Blunderbusses	28
Double Barrelled Guns (tupara)	30
Volley Gun	32
Brown Bess	34
Flintlock Pistol (kope)	36
The Boyd Carronade	121
Ship's Cannon, Russell, Bay of Islands	122
Blenkinsopps Carronade, Blenheim	126
Ship's Carronade, Te Arawa, Maketu	132
Light Cannon, Tauranga Domain	135
Ship's Carronade, Mission House, Waimate North	137
Ship's Cannon, Ngati Kuri, Spirits Bay	138
Ship's Cannon, Monmouth Redoubt, Tauranga	141
Ship's Cannon, Tauranga District Museum	143
Swivel Gun	144
Light Cannon, Tauranga Domain	149
Map of Inter-tribal Battles	150
Ship's Carronade, Ngati Tamainui, Waingaro	152
Ship's Carronade, Ngati Hine, Waiomio	155
The Horeke Cannon	159
Map of Ngapuhi and Ngaitahu Artillery Campaigns	170
Ship's Cannon, Ngaitahu, Ruapuke Island, Foveaux Strait	172
Twin Cannon, Kohukohu, Hokianga	177
Ship's Cannon, Dicky Barrett, Te Ati Awa, Taranaki	179
Maori Gunners at Meremere, Drawing by James Cowan	181
View of Oheawai Pa	182
View of Ruapekapeka Pa	182
View of Ship's Cannon, Tukiata Pa, Matapihi	184
Ship's Carronade, Te Horangi, Tarawera	187
Ship's Carronade, Ngati Whakaue, Bay of Plenty	191
Moetara's Guns, Ngati Korokoro, Hokianga	194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Nga Puhi
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Ngati Paoa
Ngati Whanaunga
Ngati Tamatera
Ngati Maru
Ngati Maru (Waikato)
Ngati Tai
Ngati Raukawa
Ngati Hawa
Te Arawa
Ngati Awa
Whakatohea
Ngaitai
Tamanuwhiri
Whanua-a-Apanui
Ngati Porou
Ngati Maniapoto
Ngati Tama
Ngati Mutunga
Te Atiawa
Ngati Mahanga (Taranaki)
Ngati Ruanui
Nga Rauru
Ngati Hau
Ngati Hau (Whanganui)
Ngati Tuwharetoa
Tuhoe
Ngati Kahungunu
Ngati Apa
Rangitane
Muaupoko
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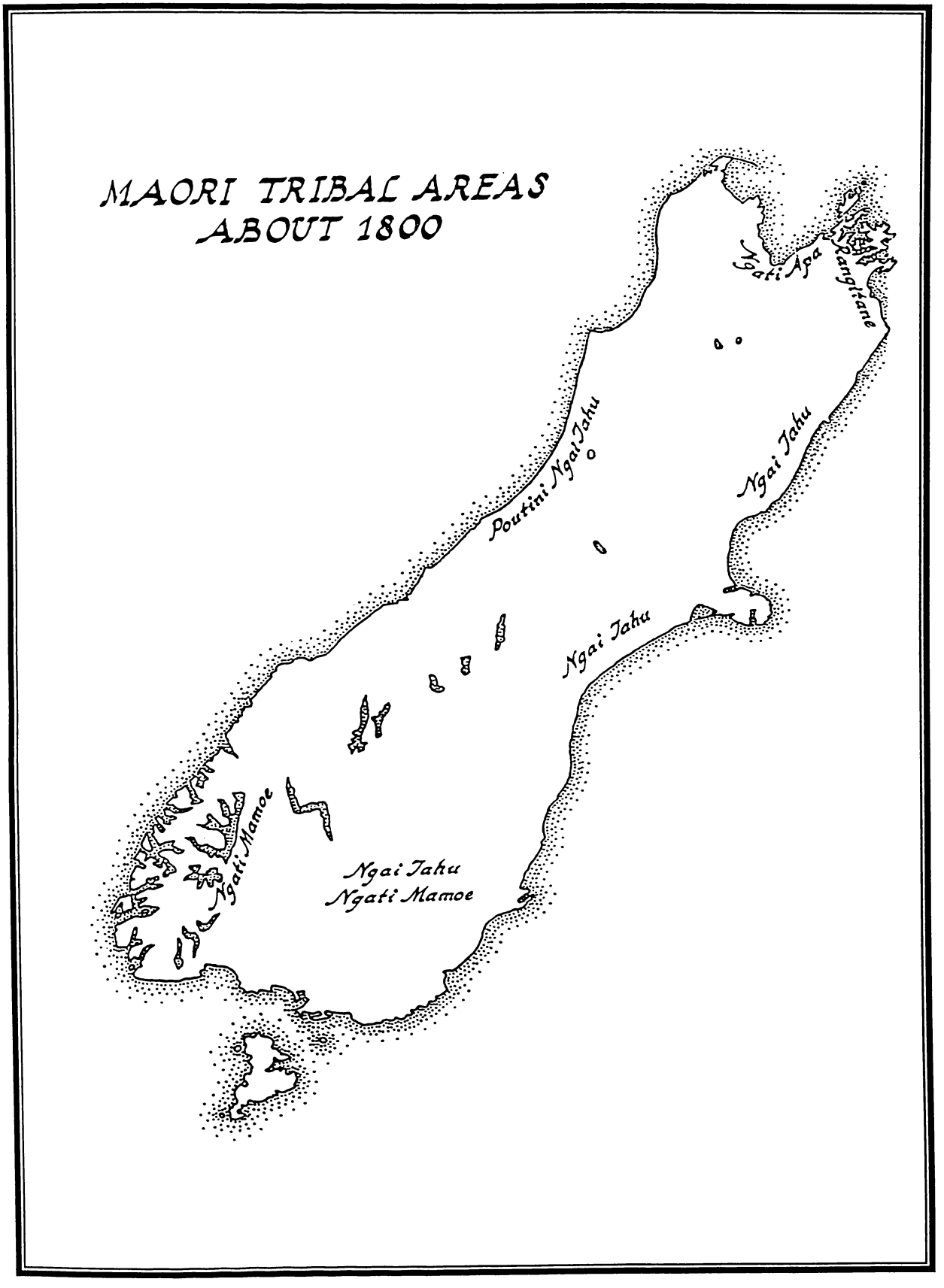
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Ngai Tahu
Ngati Mamoe

Chapter One

MAORI TRADE GUNS

The International Gun Trade

In examining the impact of flintlock guns on Maori society, tactics and mortality rates in the period it is necessary to address some fundamental questions, namely: What types of firearms were acquired? How effective were they in the three types of battle that characterised the period, predatory raiding, large scale rakau-musket battles and musket to musket warfare. It is also important to examine how the guns were repaired, serviced and stored during the often lengthy periods of peace between war expeditions for Maori were dependent upon irregular supplies of imported guns.

The manufacture of flintlock guns in the great industrial cities of Europe proved to be one of the most prolific and profitable industries spawned by the Industrial Revolution. The eighteenth and nineteenth centuries subsequently saw the irrepressible spread of flintlock gun trading around the globe as Europe exported its firearms technology, before imposing itself on the tribal peoples of the world. Gun makers on government contracts, using the factory system, constructed vast numbers of military firearms for the armies of Europe and cheap substandard trade guns for commercial interests engaged in "the native trade." So lucrative was the market in cheap trade guns for the manufacturers and colonial traders, and so insatiable the demand for these products by indigenous peoples, that trade gun production continued unabated during the American and Napoleonic Wars with output in some centres outstripping the production of military firearms.[1]

The world wide movement in guns can be traced to the seventeenth century when London and Dutch merchants commenced a profitable trade on the Barbary Coast, supplying North African tribesmen with long flintlock guns - later copied extensively by native gun makers.[2] During the eighteenth century, European commercial interests established gun trading monopolies in their colonies and spheres of influence. Holland assembled her guns in Amsterdam from Belgian parts before

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[1] Brown, M.L. *Firearms in Colonial America 1492 - 1792* (Washington 1980) pp 217, 293.

[2] Blackmore, H.L. *Guns and Rifles of the World* (London 1965) p 38.

exporting them to her colonies aboard the vessels of the Dutch East India Company. The English East India Company purchased complete guns from London and Birmingham for shipment to its own Asian markets.

By 1800, France dominated the gun trade with Turkey and the Middle East.[3] Spain and Portugal continued to monopolise the South American trade, purchasing and exporting increasing numbers of firearms constructed in Liege.[4] Nineteenth Century North America remained a free market, absorbing vast numbers of guns of the very best and worst quality, principally from gun makers in England, Holland, France and Germany.[5] Equally impressive were the number and variety of cheap and shoddy flintlock guns assembled for the African trade by European gun makers who assembled guns from an array of interchangeable parts manufactured by a multitude of sub-contractors. By 1900, some thirteen million trade guns from Birmingham and three million Belgian guns from Liege had been consigned to the coasts of Africa alone.[6]

The numbers of military muskets from the American Wars of Independence and the Napoleonic Wars that found their way into the export gun trade during the late eighteenth and early nineteenth centuries are unknown, but are also likely to have numbered in the millions.

The Pacific Gun Trade

Among the islands of the South Pacific after 1800, and in New Zealand in particular, American whaling ships, French frigates and occasional whaling vessels from Holland or France, traded guns in a bartering economy dominated by English and colonial Australian commercial interests. Competition between rival gun trading nations in the Pacific was as keen as that encountered anywhere on the North American continent and the early gun traders often reaped spectacular profits. Voyaging to the Marquesas Islands in search of a precious cargo of sandalwood in

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[3] Blackmore, H.L. p 39.
[4] Blackmore, H.L. p 38.
[5] Held, R. *The Age of Firearms* (Illinois 1957) p 110.
[6] White, G. "Firearms in Africa An Introduction". *Journal of African History*. Vol 12, No. 2, 1971, p 182.

1817, having 'sold some muskets at all the Islands', the English gun trader Captain Beveridge lamented, "At the Marquesas, they are so much supplied with muskets by the Americans there is no sale for English ones ... little sandalwood is to be procured. Formally a ton of sandalwood used to be got for a musket."[7]

The quantities of guns shipped to the remote islands of New Zealand were no less impressive than those shipped to the coasts of Africa. European observers aboard *HMS Dromedary* estimated just 500 muskets among Ngapuhi at the Bay of Islands in 1820. By 1826, the missionary Richard Davis calculated '... many thousand stands of arms among them, both in the Bay and at the River Thames.'[8] One New England whaler carried 757 guns into the Pacific for barter[9] and on the New Zealand coast in 1834, *HMS Buffalo* exchanged 230 military guns with Ngapuhi warriors under the Chief Titore in return for a cargo of kauri spars.[10]

The Pacific gun trade generated inter-tribal warfare in Hawaii, the Marquesas, Tonga, Tahiti and Samoa as well as in New Zealand. Among the Pacific cultures as in North America and much of Africa, the first dispersals of flintlock guns led to the rise of opportunist tribal groups, dependent on European traders and settlers to ensure an ongoing supply of firearms and munitions. The advent of European trade and settlement and the rise of indigenous gun societies was so universal, the process seems inseparable, though the firearms themselves were invariably the cheapest and most shoddy available.

European traders in New Zealand rarely supplied Maori with good quality guns before the 1830's, not because they feared Maori would employ their guns against them but because the deficiencies of these firearms ensured that the warriors would regularly seek replacements.

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7 Captain Beveridge, Evidence to Commissioner Bigges Enquiry Feb 19th, 1821 McNab, R. *Historical Records of New Zealand.* Vol 1 (Wellington 1908), p 211.

8 *Missionary Register* 1827, p 624.

9 Hainsworth, D.R. The Sydney Traders. Cited in Belich, J. *Making Peoples.* (London 1996), p 151

10 Yate, W. Evidence before British Parliamentary Select Committee 1837. Cited in Sexton, R. *HMS Buffalo* Australian Maritime Historical Society 1984, p 85.

Notions of racial superiority also drove the New Zealand gun trade, particularly the belief that inferior people should make do with inferior guns and that European technology, even in the shape of destructive firearms was a necessary evil if Maori were ever to become enlightened and civilised.[11]

Whether constructed in the shape of military muskets, double barrelled guns or pistols in the great gunmaking cities of London and Liege or constructed as recognisably second, third and even fourth rate guns in centres as diverse as Birmingham, Paris and Vienna, the story of the flintlock trade gun industry is a tale of technological and commercial triumph. Among the multitude of makes and models constructed during the nineteenth century, the cheap trade musket was to prove the most enduring and more of these guns were manufactured than any other type.[12]

The simplicity of the flintlock mechanism and the versatility of these guns go some way towards explaining the preference by Cooks Strait Maori 'for flintlocks rather than percussion', noted by the traveller J. P. Johnson aboard the whaler *Persian* in 1837.[13] During later conflicts with British and Colonial forces in new Zealand, the ability of Maori warriors to hand repair these guns, and to manufacture ammunition and gunpowder locally guaranteed Birmingham gun makers a market in New Zealand that continued well into the 1870's. The demand for flintlock guns from tribal peoples saw large scale production continue throughout the nineteenth century. As late as 1890, Birmingham and Belgian gun makers continued to send 170,000 trade guns to Africa.[14] It is against this background of nineteenth century flintlock gun making and the world wide traffic in guns that the role of the trade guns in the New Zealand Musket Wars must be considered.

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[11] Markham, E. *New Zealand or Recollections of It.* McCormick, E.H. (Ed) (Wellington 1973), p 72.

[12] White, G. pp 173, 183.

[13] McNab, R. *The Old Whaling Days* (Auckland 1913) p 12.

[14] White, G. p 176.

The New Zealand Gun Trade

A major obstacle confronting any writer, researching the intertribal Musket Wars is the identification of firearms. References by Pakeha and Maori to firearms in the contemporary literature are frequently inexact and misleading. The term 'Maori muskets' is used to describe collections of trade and military guns or used loosely to describe tribal arsenals containing a variety of single and double barrelled guns. Similarly, the term 'Tower muskets' might describe collections of military weapons having single and double barrels or collections of trade and military muskets where the latter weapon predominated. Despite vague and sweeping references to 'Maori muskets', it is still possible to draw general and valid conclusions about the origin, type and effectiveness of the flintlock guns acquired by Maori warriors during the conflicts of the Musket Wars.

Public displays and armouries in several New Zealand museums hold several flintlock muzzle loaders, employed by tribal chiefs during the Musket Wars. Guns of note include 'Patuones Musket', a fine single barrelled musket constructed for private sporting use (Auckland War Memorial Museum), 'Waikato's Gun' a superb doubled barrelled fowling piece presented to this chief in London by King George the Fourth in 1821 (The Treaty House, Waitangi) and 'Tuhawaiiki's Gun', a rare five shot revolving musket by Collier (Museum of Otago). Despite their public profile, these guns are not representative of the weapons acquired by the common warriors (toa) during the intertribal battles of the 1820's and 1830's. These unusual weapons do reflect the efforts of these fighting chiefs to enhance their mana tangata - personal reputations and their survival prospects by acquiring firearms as sophisticated as any of the European manufacturers of the period could provide. These weapons are also representative of the state of the art presentation firearms, gifted to important Maori chiefs by English, American and French sea captains seeking to advance their interests among the coastal tribes.

A misconception perpetuated in the secondary literature was the extensive use by Maori warriors of flintlock guns of American manufacture during the Musket Wars. This belief may be founded on the erroneous belief that large numbers of American whalers visiting the New Zealand coast during the pre-Treaty period, would logically carry large quantities of guns of American design and manufacture.

American whalers were rarely in evidence in New Zealand waters before 1840. English and colonial Australian whalers enjoyed a virtual monopoly on the New Zealand whaling grounds. American whalers preferred grounds in the North Pacific and used New Zealand harbours only in emergencies.[15]

Of the ten whale ships which visited the Bay of Islands in 1820 during the ten month stay of *HMS Dromedary*, none were American. During 1821, only two of the fourteen whalers cruising New Zealand waters were American and no more than five can be found to have visited New Zealand waters between 1821 and 1830. Only seven American whalers were recorded in New Zealand waters in the period 1830 - 1835.[16]

Cast-off weapons from the American Wars of Independence undoubtedly featured in the cargoes of the American whalers but these guns were of English manufacture, the Americans' own regular forces being principally armed with the English Brown Bess.[17] While American gunmakers of Swiss and German descent were particularly active during the 1810's and 1820's handmaking distinctive American long rifles up to five feet in length, the early American export gun trade was on a very small scale.[18] American gunmakers also faced foreign competition from Dutch and German trade gun manufacturers. These weapons were low priced but badly made and 'blamed for nineteen twentieths of all guns that have bursted'.[19]

By 1805 the famous Northwest Gun or Hudson Bay Fuke had been developed for the North American fur trade. These trade fusels with 3 ft barrels and 60 calibre bores were assembled by London gunmakers from Birmingham parts and were largely indistinguishable among the trade muskets available in the period.[20]

Cheap and shoddy trade guns of English manufacture predominated in the tribal arsenals of the Musket Wars and played an important role in New Zealand's early military history. Bartered on the New Zealand coasts in their thousands by English,

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[15] Canham, P. New England Whalers In New Zealand Waters 1800 - 1850 MA Thesis, University of Auckland, pp 5 - 11.
[16] Canham, P. p 13.
[17] Held, R. p 111.
[18] Blackmore, H.L. p 39.
[19] Held, R. p 47.
[20] Brown, M.L. p 284.

Colonial and American vessels during the 1820's and early 1830's these crudely constructed flintlocks were not made for accuracy, reliability or durability, hence few have survived intact. Additionally, during the Northern War of 1845 and the New Zealand Wars of the 1860's, captured Maori trade muskets were not considered worthy trophies of war by British and Colonial forces.

Few of these distinctive guns were subsequently available to public museums and private collectors by the end of the nineteenth century, and local examples have proved difficult to locate.

The role of the trade guns in early nineteenth century intertribal warfare has been overshadowed by the reputation of the Tower military musket or Brown Bess. Constructed from approved materials and test fired or proofed by armourers in the Tower of London armouries, the Brown Bess was considered very reliable for its type. Many models of this military weapon saw action in New Zealand conflicts between the 1830's and 1870's, as the cast off model of one decade, replaced earlier surplus models released from Government and manufacturers stores. The popular belief that the New Zealand intertribal Musket Wars were fought with surplus Napoleonic Wars Tower muskets however, has no basis in fact. The myth of the Brown Bess as the favoured weapon of the pre-1840 warriors is founded in the predominance of this musket in local museum displays of nineteenth century flintlock guns. It is also founded on the assumptions evident in the primary and secondary literature that tribal warriors would be dissatisfied with trade guns and naturally seek expensive and more reliable military firearms though both types were remarkably inaccurate and inefficient.[21] New Zealand writers who have persistently linked military firearms with escalating intertribal warfare in the pre-Treaty period have generally been more concerned with military events than with the acculturation of European firearms into Maori rituals and food gathering activities. Given the large quantities of muskets stamped 'Tower' seen in the hands of tribal warriors during the 1830's they have also assumed that Brown Bess predominated in the tribal arsenals of the 1820's.[22]

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[21] Howarth, D. *A Near Run Thing* (London, 1968) p 59.

[22] Smith, P. B. *Maori Wars of the Nineteenth Century* (Christchurch 1910) p 324.

The production of trashy flintlock guns had been an integral part of the European export gun trade since the early 1700's. The late 1700's saw the emergence of Birmingham and Liege as the principal trade gun making centres of Europe.[23] Here, the trade muskets were assembled by gunmakers from parts often rejected by the military authorities as sub-standard.

Valued at between five and ten shillings apiece in the early nineteenth century, these muzzle loaders of 'Sham Damn Iron' and 'Trade Iron' were condemned vociferously by contemporary critics as 'horribly dangerous' and 'made from iron unfit to make firearms'.[24]

Acculturating The Trade Guns

Limited numbers of trade and cast-off military muskets were acquired by Northern Maori from English and American whaling vessels during the first decade of the nineteenth century, but the primary evidence suggests that until the early 1830's the trashy muzzle loaders were more eagerly sought by the warriors than military muskets. Cheaper to buy, lighter in weight and simpler to repair, the robust firelocks of the trade guns had few delicate parts, and their proliferating numbers in the north after 1820, generated enough spare parts for the warriors to easily find replacements that could be carried and utilised in the field.[25] The trade guns had an additional appeal for Maori in the early contact period when all metal was greatly prized as many trade guns were "tinselled off in such a manner as to be quite captivating".[26] The massive butt plates of the trade guns, the unetched barrels, broad lock plates and exaggerated escutcheons were carefully polished by the warriors. Displayed with great flamboyance during the haka, these glittering weapons clearly announced the military and economic capabilities of the hapu.[27]

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[23] White, G. p 182.

[24] Butler, J. *Earliest New Zealand, The Journals and Correspondence of the Rev John Butler.* Compiler Barton, J. (Masterton 1927) p 173.

[25] Williams, H. *The Early Journals of Henry Williams, 1826 - 40* Rogers, C.M. (Ed) (Christchurch 1961), p 125.

[26] Held, R. p 157.

[27] Williams, H. p 217.

Maori knowledge of the destructive power of muskets was arrived at gradually over time. Between the battle of Moremonui in 1807, when Ngapuhi first attempted unsuccessfully to use muskets offensively,[28] and 1818 the year of the first marauding musket expeditions, trade muskets were acculturated into a variety of rituals and established food gathering activities in the north.

Missionary journals and correspondence between 1814 and 1818 reveal that while muskets were employed by Ngapuhi in several skirmishes with Ngatiwhatua at the Kaipara, and Ngati Pou at Whangaroa, these guns were fired principally: as a signal of peaceful intent between parties of strangers, as a signal of peaceful intent when approaching pa or kianga, to welcome and farewell visiting chiefs and Europeans and to salute the arrival and departure of European shipping.[29] Important symbols of chiefly rank, guns were additionally employed to fire sacred powder (paura mamai) during the funeral (tangihanga) ceremonies of chiefs and as treasured possessions the flintlocks were individually named and the woodwork intricately carved.[30]

The wide .50 - .70 calibre bores of the English trade muskets were ideally suited to the important economic activities of slaving, pig hunting, birding and wildfowling. These barrels also readily accepted the small pebbles substituted for birdshot and larger pebbles substituted for musket balls when ammunition was unobtainable. Military muskets, however, were dependent on supplies of imported parts, black powder or cartridges. While fine grained black powder designed for military flintlocks of robust construction could burst the Maori trade guns and injure the warriors the Birmingham muskets were suited to lower strength, coarse grained 'lighty powder' readily available from whaling vessels of most nations revictualling at the Bay of Islands.[31]

The popularity of the trade guns is also attributable to their light weight which made for ease of aiming. After proofing or test firing, the barrels of trade guns were ground out by the Birmingham sub contractors and cut shorter than the 46 inch barrel

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[28] Marsden, S. *The Letters and Journals of Samuel Marsden* 1765 - 1838 Elder, J. (Ed) (Dunedin 1932) p 285.

[29] Marsden, S. p 285.

[30] Nicholas, J. *Narrative of A Voyage to New Zealand* (London 1817) p 28.

[31] Sharpe, A. *Duppereys Visit to New Zealand in 1824* (Wellington 1971) pp 33, 34.

of the Brown Bess.[32] The white powder trade guns also lacked the heavy recoil of the powerful black powder weapons.

The Role of Trade Guns In Early Predatory Raiding

More significantly, the trade guns were suited to the tactics adopted by Ngapuhi in their predatory raiding. The Rev. Samuel Marsden noted the departure of two huge marauding taua in 1818 under the Ngapuhi chiefs Te Morenga and Hongi Hika.[33] Operating independently, these canoe borne expeditions ravaged the Bay of Plenty and East Cape regions before reputedly returning to the north with some 2000 prisoners and a considerable quantity of tattooed heads. The 1818 expeditions were unique, firstly for the numerical strength of the taua - these were the first of the great predatory musket taua founded on extensive inter-tribal alliances, and secondly for the reliance of these taua on the psychological effects of gunfire to break and conquer the rakau (conventionally) armed warrior forces arrayed against them. Te Morenga's force, 800 strong carried just 35 muskets.[34]

The Ngapuhi armament escalated sharply after 1818 as the number of whaling vessels seeking fresh provisions at the Bay increased. While just six London based whale ships were reported on the New Zealand coast in 1814, ten whalers visited the Bay during the ten months *HMS Dromedary* was cruising the northern coast, with the number of visiting whalers increasing to fourteen in 1821.[35] The increased shipping and the refusal of Ngapuhi to trade for any items other than guns and powder between 1818 and 1824, saw an explosive growth of firearms among the hapu. European visitors aboard *HMS Dromedary* had estimated just 500 muskets at the Bay of Islands in 1820 but by 1821 estimates varied between 1000 and 2000 guns, though 300 of these had been shipped to the Bay of Islands by Hongi Hika, following his successful armaments gathering expedition to London and Sydney in 1821.[36]

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[32] Brown, M.L. pp 217 - 293.
[33] Marsden, S. pp 265, 266.
[34] Marsden, S. p 266.
[35] Ganham, P. pp 5-11.
[36] Thompson, A.S. *The Story of New Zealand* (Christchurch 1974), p 78.

While the number of trade flintlocks in the Ngapuhi arsenal increased at a remarkable rate after 1818, their deficiencies by no means limited their effectiveness on the battlefield. During this first phase of predatory musket raiding, the strategic role of firearms was not to kill, but to capture and enslave the enemy to increase Ngapuhi agricultural output and the capacity of hapu to acquire additional guns. Dr Fairfowl on *HMS Dromedary* at the Bay of Islands in 1820 believed "... the regular pitched battles in which gunpowder is most serviceable are not bloody." And "When one tribe that had muskets attacks a tribe that has none, the latter generally quits the field altogether."[37] The trade muskets employed by Ngapuhi in their raiding between 1818 and 1820 changed the whole character of Maori warfare and upset the established intertribal balance of power. Predatory raiding in this period was characterised by medium sized taua of 800 - 1200 men armed with a limited number of muskets. The tribal musketeers employed their guns to shoot the opposing chiefs and leading toa, with the remaining defenders either fleeing the battlefield or standing bewildered to be slain or enslaved. One Ngapuhi warrior who had participated in the great raid to the Cooks Strait region in 1819 stated:

> "We had with us four guns. When we arrived before our enemies' pa our three marksmen went in front of the taua and as soon as the enemy saw us they would recognize us as a taua and their braves would climb up into the towers so that they might be better able to throw stones at us. Those braves did not know of the gun, nor its deadly effects. When they got up to the towers they would grimace and put out their tongues at us and dare us to come on to attack them. They thought that some of us would be killed by their stones. Whilst they grimaced away we used to fire at them. It was just like a pigeon falling out of a tree! When the others heard the noise, saw the smoke and the flash, and the death of their braves, they thought it must be god Maru that accompanied us, and it was by his power and the tapu of our tohunga (priest) that their braves were killed by the thunder of that god Maru. Then the whole pa would feel dispirited and stand without sense, so that we had only to assault the pa without any defence from the people. The people of the pa would have all the lamenting and we all the cheers. Those that we killed we ate; those saved we made slaves of." [38]

Successive Ngapuhi victories in the period 1818 to 1820 then, were not founded on efficient guns or proficiency with guns but rather on their monopoly on the gun

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[37] Dr Fairfowls evidence to Commisioner Bigges Inquiry, McNab, R. Vol 1, pp 551, 552.

[38] Smith, P.B. p 106.

trade and psychological factors, principally surprise attack and the ability of these weapons to produce 'thunder', 'fire', 'smoke' and 'lightning' and occasionally sudden death among their panic stricken opponents.

The Trade Guns in the Great Rakau Musket Battles

Major Richard Cruise, visiting the Bay of Islands aboard *HMS Dromedary* in 1820, was appalled by the substandard type of musket traded to Ngapuhi. The muskets he observed were 'of the worst possible description' and he was astounded that their enemies could dread the effects of such poor quality guns.[39] These concerns were subsequently echoed by Ensign McCrae from the *Dromedary* at Commissioner Bigges enquiry on New Zealand at Sydney in 1821.

> **QUESTION:** "You believe and have observed that gunpowder and arms are very common amongst them?"
>
> **ANSWER:** "Very common. I have been told that amongst the tribes of the Bay of Islands, there are not less than 500 stand of arms with bullet moulds. It should be observed that a great many of these firelocks that have been received from the whaling vessels are of the oldest and worst possible description."[40]

This then was the general age and type of the estimated one to two thousand muskets seen in the possession of the three great taua that mustered under Hongi Hika in the period 1821 to 1823. Acquisition of any flintlock gun at this time 'conferred great mana on the possessor'[41] and gave the toa an important psychological advantage over their rakau equipped opponents regardless of their origin and reliability.

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[39] Cruise, R. *Journal of A Ten Months Residence in New Zealand* (London 1824) p 282.

[40] Ensign McCraes Evidence to Commissioner Bigges Inquiry, McNab, R. Vol 1, p 538.

[41] Te Kuiti W.P. *Where the White Man Treads* Auckland 1928, p 73.

Nevertheless, the assembled hapu were armed with a truly impressive collection of flintlock weaponry, primarily cheap single barrelled trade muskets,[42] blunderbusses designed for military and civilian use,[43] cast off single and double barrelled military muskets,[44] a handful of fine single and double[45] barrelled sporting guns and a variety of antiquated flintlock pistols.[46]

Flintlock guns whether constructed for the colonial trade or for military use were weapons of remarkable inefficiency and a high degree of co-operation with Ngapuhi was necessary to be defeated by their muskets. During the early 1820's the invading musket armies of Hongi Hika exploited the traditional tactics of the conventionally armed southern tribes to produce carnage on a grand scale. The lightweight trade guns employed by Ngapuhi on battlefields at Tamaki (1821), Waikato (1822) and Rotorua (1823) were grossly inaccurate and given their poor quality and limited power, it is surprising that they killed at all. Brown Bess, a powerful military black powder gun, was accurate up to seventy five metres with a misfire rate of about three shots in ten.[47] The trade guns with their poor quality flints and powder had a much higher rate of misfire and the shot travelled at a much lower velocity. On the Tamaki battlefield in 1821 it was necessary for Ngapuhi to shoot the Ngati Paoa chief Te Hinaki four times to ensure his death and to close to point blank range with the enemy to deliver musket fire.[48]

The trade muskets were roundly condemned by several conservative chiefs for their inefficiency, for unlike conventional rakau-Maori weapons they did not kill sufficient numbers of the enemy.[49]

During the battles at Tamaki in 1821 and at Rotorua in 1823, Ngapuhi were initially reluctant to attack the massed ranks of their enemies who had deployed

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[42] Cruise, R. p 282.

[43] Hall to Pratt 13 September 1820 MS 6T/2 Cited in Binney, J. *The Legacy of Guilt* Oxford University Press 1968, p 47.

[44] Butler, J. p 173.

[45] Barton, J. p 173 Nicholas p 124, 128, 129.

[46] Tarikawa, H.T. The Fall of Mokoia Rotorua. *Journal of the Polynesian Society* Vol 8, 1899. p 244.

[47] Held, R. pp 110, 111, Howard, D. p 59.

[48] Makiwhara, A. "The Fall of Mokoia and Mauinaina and the Death of Kea 1821" *Journal of the Polynesian Society* 1923, Vol 32, No. 126, pp 94, 95.

[49] Maning, F. E. *Old New Zealand* (Auckland 1963), p 389.

outside the protection of their pa to give battle.[50] Ngat Paoa who had traded with European vessels in the Hauraki Gulf since 1794 had accumulated 100 muskets to oppose Hongi Hika's 1000[51] guns and Te Arawa while reputedly possessing one musket was able to field an immense number of warriors.[52]

These forces overcame the initial shock and fear created by massed gunfire and did not break and run as had most previous opponents. Armed principally with rakau-Maori weapons of stone, bone and wood, the resolute defenders charged the Ngapuhi advance and neutralised the trade guns by close infighting, compelling the invaders to retreat and regroup.[53] Hongi Hika 'roaring' counter attacked during both battles at the head of a traditional Maori offensive formation, the flying wedge or kawau maro. This tactic succeeded in driving back the defenders, splitting their ranks and killing their chiefs. By advancing from the safety offered by this formation to deliver musket fire, or withdrawing into this formation when counter-charged, Ngapuhi destroyed their opponents with gunfire before launching their assault against the defenders behind the palisades.[54]

It was concentrated fire delivered from motley collections of lightweight muzzle loaders, not Brown Bess that produced the staggering numbers of casualties that characterise the three great pitched battles of the musket-rakau era. In this second phase of inter-tribal warfare, Hongi Hika compensated for the slow rate of fire and general inaccuracy of these lightweight guns by tactical innovation. The Kawau-maro saved Ngapuhi from near defeat at Tamaki and Rotorua and enabled Ngapuhi to conquer powerful and resolute rakau armies without recourse to collections of heavy military muskets and more significantly without recourse to traditional hand to hand fighting.

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[50] Marsden, S. p 389.

[51] d'Urville, D. *The New Zealanders A Story of Astral Lands* Legge, C. (trans). Victoria University, 1992, p 287.

[52] d'Urville, D. Legge, C. (Trans), p 287.

[53] Sharp, A. p 65.

[54] Taylor, R. *Te Ika A Maui or New Zealand and Its Inhabitants* (Wellington 1974), pp 312, 313.

Selective Gun Trading

By 1824, sufficient numbers of muskets in the north enabled Ngapuhi to become more selective in their gun trading and unfamiliar French muskets from the French frigate *La Coquille*, were rejected in the Bay of Islands. Rene Lesson, Pharmacian Second Class observed:

> "... in all they have seen of the Europeans, they have found nothing so beautiful and so perfect as the murderous invention of muskets and powder. Several natives came to offer us swine for matchlocks, but in spite of all their quality ours did not have the gift of pleasing them because of the bands [around the barrel] and the ones that the English and Americans give them do not."[55]

Having then failed to trade these muskets with Ngapuhi hapu beyond the Bay, his fellow officer, Victor Lottin, lamented: "They were only used to seeing English muskets, and the bands on ours seemed to prejudice accuracy of aim and prevented our concluding any sale with that item."[56] The French also observed that Ngapuhi were also rejecting the poorest of the trade muskets at this time. The warriors were insisting on purchasing muskets in pristine condition and were refusing those that were scratched or showed any discolouration in the woodwork or metal work.[57]

While individual tribes armed with muskets enjoyed victories over their rakau armed neighbours, the trade muskets continued to be keenly sought. During the 1820's the tribes continued to demand muskets that could be used in tribal rituals as well as war and insisted that their muskets have certain distinctive features, particularly barrels without bands, lightness of weight, large bores that could accommodate pebbles substituted for musket balls, broad metal parts for burnishing, and robust firelocks that gave a loud click when snapped. Describing the nature and extent of the armaments acquired by tribes with access to the shipping during the 1820's the English writer, G. L. Craik recorded in his 1830 history of New Zealand: "Although the arms they have obtained have generally been of the most trashy description, they have been sufficient to secure to the tribes that have been most plentifully supplied with them, a decided superiority over the rest."[58]

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[55] Sharp, A. p 33.
[56] Lottin, V. Journal, Cited in Sharp, A. p 49.
[57] Lesson, P. Journal Cited in Sharp, A. p 50.
[58] Craik, G. L. *The New Zealanders.* (London 1830), p 267.

While the deficiencies of the cheap trade guns were lamented in the journals of visitors to the Bay region, their criticisms contrast sharply with their open admiration for the magnificent double barrelled fowling pieces and fine handcrafted sporting guns that were acquired by enterprising chiefs.[59] The itinerant artist Augustus Earle noted during his travels among the Hokianga and Bay hapu in 1827 that some chiefs and leading toa were armed with double barrelled guns (tupara) and good quality Tower muskets.[60] For the common toa however, the shoddy iron trade musket remained the principal if not preferred firearm well into the 1830's. As late as 1834, when quality Tower muskets were readily available in the north, a preference for the cheapest trade gun among Ngapuhi is still evident. In this year the Rev. William Wade, attending a hakari (feast) in the Waimate area expressed concern 'that frequent accidents do not occur given the rubbish that is sold to them in the shape of guns."[61]

The enduring popularity of the cheap trade guns among Ngapuhi is attributable to the escalating intertribal arms race among the southern tribes and the expansion of the New Zealand flax trade. Pakeha traders demanded and received exorbitant prices for military flintlock guns in the south at a time when Ngapuhi predatory raiding was declining, the result of war weariness, a succession of defeats in the south and missionary influences in the north. European residents nevertheless noted Ngapuhi's proficiency in speed loading muskets, a technique refined by local tactical developments.

> "In loading the musket, they rarely use the ramrod. Some powder from the cartridge was used to prime the pan which was then shut. The remaining powder was dropped into the barrel and the butt end struck upon the ground. The ball then followed with another blow given to set the piece, the musket being ready to fire .... They say that we (Europeans) are too long in loading and we have too many forms to go through - that they could shoot us while we were looking at them; they nevertheless allow us to be better shots singly than they are ..."[62]

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[59] Earle, A. *A Narrative of A Nine Months Residence in New Zealand in 1827.* (London 1830), p 46.

[60] Earle, A. p 95.

[61] Wade, W. R. *Journey in the North Island of New Zealand.* (Christchurch 1972), p 120.

[62] *Sydney Herald* 11th May 1837.

The practice of speed loading while detrimental to the reliability and longevity of trade and quality military musket alike, reflected the Ngapuhi preference for flamboyant display that characterised ritualised interhapu warfare in the Bay region after 1830. In these conflicts trashy muzzle loaders were able to co-exist alongside powerful and expensive military muskets. The trader Joel Polack records that during these confrontations muskets were fired by warriors standing at a safe distance, and from the hip rather than the shoulder, with thousands of rounds exchanged between the combatants who withdrew after a few casualties had been inflicted on either side.[63]

Trade Prices

In the years between the arrival of the missionaries in 1814 and the arrival of significant numbers of whaling vessels in the north in 1818, all muskets were exorbitantly priced. Rarawa at North Cape had exchanged eight pigs and one hundred and twenty baskets of potatoes for a single musket in 1813.[64] As Ngapuhi held a virtual monopoly on the maritime revictualling and musket trade in New Zealand throughout the 1820's the price of trade muskets was considerably lower and remarkably consistent at the Bay of Islands, Cruise complained in 1820 that Ngapuhi were exchanging ten large pigs for a musket "not worth ten shillings"[65] though there is no indication that the warriors were prepared to pay higher prices for a shipment of 'good quality' muskets seen by Thomas Kendall aboard the whaler *Echo* in the same year.[66] Earle, in 1827, noted an identical rate of exchange at "ten large hogs or 120 baskets of potatoes" for a musket,[67] while the Rev Richard Davis in 1829 quotes "eight pigs or ten pigs per musket".[68] Earle states that the rate of exchange was fixed and accepted by both parties.[69]

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[63] Polack, J.S. Evidence to Parliamentary Select Committee *Parliamentary Papers* 1837 - 38, pp 85, 86.
[64] Marsden, S. p 82.
[65] Cruise, R. p 286.
[66] Butlers' Journal, 14th February 1820. Cited in Binney, J. *The Legacy of Guilt* (Auckland 1968) p 45.
[67] Earle, A. pp 96, 97.
[68] Davis, R. Journal Keene, F. (Ed) *By This We Conquer* (Whangagrei 1974), p 23.
[69] Earle, A. p 96.

The continuing demand by Maori for the cheap trade guns is understandable given the huge quantities of dressed flax necessary for Maori to acquire superior military muskets during the early 1830's, the period when the southern intertribal arms race was at its fiercest.

At Kawhia in 1832 the flax trader St John exchanged superior muskets for seven hundred weight of flax (784 pounds) or 27 to 28 large baskets of dressed flax.[70] The chief Reihana told St John that he would not give more than one basket of flax for his musket. A few days later the chief delivered a basket of flax on two canoes "like a haystack".[71]

W.T.L. Travers quotes similar prices in flax for superior muskets in the Bay of Plenty and a quality musket in the Thames area fetched eight hundred weight of flax in 1836.[72] Frederick Maning states that "a ton of cleaned flax was the price paid for two muskets at the Hokianga in the early 1830's with another half ton required for ammunition."[73]

Of the trade in superior guns the early New Zealand historian Robert McNab wrote:

> "By 1830 ... the Maori knew a good gun just as well as the European did ... so they made it a rule to take off the locks and examine them before completing the bargain. They preferred the musket which bore a Tower stamp, and fancied the stocks which were dark in colour and had most brass upon them."[74]

In the absence of prohibitions by the European governments, European traders had few qualms about offering large quantities of flintlock guns among their 'fruits of civilisation'. In early nineteenth century New Zealand the cheap gun trade was encouraged and participated in by many interest groups including missionaries who

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[70] St John, Lieutenant Colonel *Pakeha Rambles in Maori Lands* (Wellington 1873) p 25.

[71] St John, L.C. p 126 Travers, W. L. *The Stirring Times of Te Rauporaha* Christchurch 1906, p 92.

[72] Wilson, J. A. *The Story of Te Waharoa* (Second Edition 1866) p 90. Travers, W.T.L. *Some Chapters in the Life and Times of Te Rauparaha, Chief of Ngatitoa.* (Wellington 172), p 117.

[73] Maning, F. E. p 207.

[74] McNab, R. Old Whaling Days, p 12.

explained escalating intertribal gun warfare as essential to the civilising process and a prerequisite to the enlightenment of the Maori. Thomas Kendall used this argument to justify his participation in the Bay of Islands musket trade to his superior Samuel Marsden[75] in 1818, though it was Edward Markham, an English visitor to the Hokianga in 1834 who provides one of the more intriguing glimpses into the mind of an early nineteenth century visitor to New Zealand. "Rum, blankets, muskets, tobacco and diseases have been the great destroyers but my belief is the Almighty intended it to be so, or it would not have been allowed. Out of evil comes good."[76]

The Sydney based gun trading houses and the multitude of whaling vessels engaged in the New Zealand gun trade encountered little official opposition to their activities despite periodic complaints from Samuel Marsden.[77]

Given the rapid expansion of the whaling, timber and flax trades in New Zealand after 1818 and the lack of imminent danger to the Europeans resident among the tribes, the authorities in Sydney were not prepared to hamper such a lucrative traffic and the Maori gun trade could hardly have been illegal except in the most theoretical sense. Consequently, the gun trade was conducted openly and Royal Navy ships seeking cargoes of flax and kauri spars for the Admiralty competed with civilian guntraders to secure commercial agreements with the leading chiefs.

New Zealand in this period had become a principal source of pork and potatoes for the fledgling New South Wales colony while Sydney town itself became a clearing house for guns imported for Europe. The pork and potato trade proved particularly lucrative for the Sydney and Hobart traders. At the Hokianga in 1832 their vessels were purchasing and salting as much pork as they could get for three to four pounds sterling per ton by trading old double barrelled guns for five large pigs. This pork was sold at 60 pounds sterling per ton at the Australian ports. Potatoes similarly were brought for a gun or miscellaneous trade goods to the value of 12 shillings and sold at 12 pounds sterling per ton.[78] "The total of £3,865 for firearms and relevant accessories in 1830 represented approximately 40 percent of the total trade of £9,591 15s 0d. to New Zealand from Sydney (including goods to Europeans as well as

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[75] Marsden, S. p 217.
[76] Markham, E. p 64.
[77] Marsden, S. p 317.
[78] Markham, E. p 64.

Maoris). In 1831 of the £17,349 3s 9d. of exports to Maoris alone, £11,815 5s consisted of firearms etc."[79]

The Tower Muskets

Birmingham trade guns enjoyed a better reputation than those of Liege, England's only real competitor in this field. The New England and New Bedford whalers purchased trade guns from London or Birmingham for the Pacific trade, though many London gunmakers were actually dealers who had their guns made up for them by the Birmingham subcontractors.[80] Production of London-made-trade-guns declined with the end of the Napoleonic Wars and by 1850 London was superior only in the quality trade.[81] By 1839 Liege was producing a mere 10,000 guns annually for the 'Africa trade' with output doubling only in 1849. Liege muskets do not appear to have been acquired by Maori who throughout the Musket Wars exhibited a preference for muskets of English manufacture.[82]

Early nineteenth century Birmingham trade guns were of four distinct types - unproofed trade guns of 'Sham Damn Iron', proofed trade guns of 'plain iron', substandard Birmingham Brown Bess muskets with locks stamped 'Tower' rejected by the Government and Tower muskets of Napoleonic Wars vintage, released by the military authorities and 'worked over' by the Birmingham gunmakers. The local evidence indicates that the latter three types were exchanged in considerable volume on the New Zealand coasts during the Musket Wars.

Until 1813, when the British Parliament established a proofing or test firing house in Birmingham, guns were constructed and sold 'in the certain knowledge that if they were ever fired out of, they were certain to burst on the discharge'.[83] These muskets and fowling pieces of 'Sham Damn Iron' were manufactured at an average

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[79] Urlich, D. "The Introduction and Diffusion of Firearms in New Zealand 1809-1840". *Journal of the Polynesian Society* Vol 79, No 4, 1970, pp 401 - 409.

[80] White, G. p 181.

[81] White, G. p 181.

[82] Lesson, P. Journal. Cited in Sharpe, E. p 40.

[83] Parsons, B. (Attributed) *Observations on the Firearms Manufactured for Military Purposes* (London 1829), p 145 Cited in White, G. p 186.

cost of '5 shillings 3½d' exclusively for the African trade.[84] While some 30,000 firearms of this type were produced annually in the years between 1775 and 1800, there is no Maori tradition of exploding guns at the battle of Moremonui in 1807[85] nor evidence in the missionary journals that such guns were ever traded in New Zealand after 1814. Missionary reports of gunpowder accidents in the early period are numerous.[86] Reports of injuries arising from chamber explosions are not.

Proofed trade guns of 'plain iron' however were manufactured in immense quantities after 1813, with Birmingham proofing 127,431 barrels in 1816 alone.[87] Exaggerated claims were made that these trade guns 'are as sound and secure as the musket used by the British soldier'.[88] Contemporary English critics were less enthusiastic condemning Birmingham proofed guns as 'of the cheapest quality' and 'horribly dangerous' unless used in conjunction 'with a very special bright grained powder of low strength'.[89] These were the flintlock guns most commonly observed in the possession of Ngapuhi during the 1820's and their successes on the battlefields of the period, particularly during the extended winter campaigns under Hongi Hika says much about the ingenuity and determination of the toa in keeping their cheap trade guns operational.

The practice of counterfeiting manufacturers stamps was widespread in the European trade gun industry. Birmingham gunmakers were known to stamp their guns "London" in attempts to obtain higher prices, and Belgium gunmakers used Birmingham trade names slightly misspelt to sell their firearms in Africa.[90] While there was no documented evidence located indicating that substandard Brown Bess muskets stamped 'Tower' were sold in New Zealand during the Musket Wars, given the great numbers of Birmingham guns traded to nineteenth century Maori, it is not improbable that Maori acquired large numbers of firearms of this type. Increasing

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[84] White, G. p 180.
[85] Lesson, P. Cited in Sharpe, A. p 61.
[86] Marsden, S. p 269.
[87] Harris, C. *The History of the Birmingham Gun Barrel proof House,* p 152. Cited in White, G. p 182.
[88] Carsons, B. *Observations on the Manufacture of Firearms for Military Purposes* London 1829 9 45. Cited in White, G. p 180.
[89] Artifex and Opifex *Courses of Decay* P128 cited in White, G. p 181.
[90] Hanson, C. E. *The Northwest Gun* (Lincoln 1956) pp 36, 37 Cited in White, G. p 81.

reports of injuries relating to chamber explosions during the 1830's, the period when 'quality' muskets stamped 'Tower' were readily available, is further reason for conjecture.

Henry Williams notes that the chief Moka, Hongi Hika's brother, was injured by an exploding musket at Paihia in January 1832 and Tareha, a chief who had accompanied Hongi on all his campaigns in August 1832 "showed us his hand which had been shattered by the bursting of a gun about two months since, it was a most surprising cure."[91]

The Birmingham gun trade reached its apogee during the 1860's when Birmingham gunmakers exported between 100,000 and 150,000 flintlock guns to Africa each year. These guns were stamped with a variety of names as 'each district had its own peculiar taste'.[92]

Visiting the Waikato in 1862, J. E. Gorst noted the existence of eight companies of uniformed Maori troops up to eighty strong recruited from the tribes as a guard of honour to the Maori King, Matutaera Potatau, armed principally with 'nothing better than old Brummagen muskets; a few have fowling pieces and rifles taken at Taranaki.'[93] The term 'Brummage' may describe a Birmingham gunmakers stamp on muskets popular with Maori at this time or Gorst may be using the term in a derogatory sense to describe Birmingham sourced Brown Bess muskets regarded as unsuitable for military use. There is no indication by Gorst that the 'King's Soldiers' were dissatisfied with their trade guns or that they were actively seeking to arm with percussion muskets despite the mounting tensions preceding the outbreak of war in the Waikato.

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[91] Williams, H. pp 176 - 253.

[92] Goodman, J. D. *The Birmingham Gun Trade* London 1866, pp 415 - 419. Cited in White, G. pp 178 - 179.

[93] Gorst, J. E. General Report on the State of the Upper Waikato *New Zealand Parliamentary Papers* 5 June 1862, pp 9 - 19.

Regardless of their authenticity, Birmingham sourced military flintlocks appeared in the possession of tribal warriors in increasing numbers during the second decade of the Musket Wars. William Greener, a contemporary critic of the Birmingham gun trade, calculated in 1829 that a safe musket cost 'slightly over sixteen shillings' to make.[94] The 2120 unidentified muskets exported from Sydney to New Zealand between January 1st and August 14th 1830 had an average value of nineteen shillings apiece, reflecting the growing demand by the toa for powerful military muskets of good quality.[95] Similarly, the 5,888 unidentified muskets shipped from Sydney to New Zealand between January 1st and December 8th 1831 had an average value of 27 shillings apiece.[96] These consignments of guns, destined for trade with many tribes will have comprised Birmingham military muskets (made under contract to the Government but rejected by the military authorities as substandard) and/or used Napoleonic Wars Tower muskets 'worked over' by the Birmingham gunmakers and subcontractors. In any event, the 1830 and 1831 consignments consisted largely of Brown Bess Muskets that will have varied considerably in model, origin and quality. The numbers of plain iron trade guns obtained by Maori from English and American whalers along the coast in these years are not recorded, but most Maori guns remained 'intrinsically bad, brought out by the whalers merely for barter.'[97]

While the export of flintlock guns of good quality from Sydney in 1830 marks the final phase in the arming of the New Zealand tribes, by 1835, if not earlier, the most intensive phase of intertribal warfare was over. Similarly by 1830 several major north island tribes were fully armed with the arsenals combining Tower Muskets and the cheaper trade muskets or were approaching saturation level. Ngapuhi in the Bay and Hokianga region and Ngati Toa and their allies under Te Rauparaha had achieved a 1:1 warrior-musket ratio by 1830.[98] Ngati Haua under Te Waharoa in the Thames area and Ngaiterangi of Tauranga were fully armed by 1831 with Waikato, fully armed by 1832. The reluctance of the tribes to accept the high casualties associated with indiscriminate warfare in this period compelled a change in tactics and the demand by Maori for more accurate and reliable black powder muskets, the heavily

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[94] Greener, W. *The Science of Gunnery,* London 1846, pp 96 - 200 Cited in White, G. p 181.
[95] Watson, J.F. (Ed) *Historical Records of Australia* XV, 737, XVI, p 485.
[96] Watson J.F., p 485.
[97] Cruise, R.A. p 282.
[98] Urlich, D. pp 401 - 409.

armed toa shifting to mobile defensive strategies on the fringes of their tribal territories or to defensive battles fought from within fortifications modified to both resist musket fire and to enhance its delivery.[99]

In the face of war weariness, interhapu factional fighting and missionary influences, the Ngapuhi taua declined in numbers and effectiveness and became more infrequent. The growing numbers of trashy trade and surplus military guns in the possession of the southern tribes coupled with their use of traditional tactics of ambush and surprise attack, saw the defeat of a succession of heavily armed Ngapuhi marauding expeditions during the late 1820's and early 1830's.[100]

Observing the benefits of the expanding tribal arsenals, Polack observed:

> "... though every free native possesses at least one or more of those dangerous weapons, yet the natives have less to fear from each other than formally, as physical force is on an equal level. With this feeling, the natives have not been so hasty to avenge old grievances or seek heedlessly for newer ones. The bitter malignity that characterised the warfare of old is also past; firearms have prevented the close collision when those horrible enormities took place that admit not of description."[101]

A systematic examination of the circumstantial evidence therefore reveals that contrary to popular belief, the New Zealand Musket Wars were not fought with surplus military muskets released by the European armies at the end of the Napoleonic Wars. (1815). Tower military muskets were not sighted in the hands of Ngapuhi until 1827 and did not feature in the arsenals of the North Island tribes until the early 1830's, long after the last great marauding taua under Hongi Hika had returned to the North and after the most intensive phase of intertribal warfare was over. The significance of military firearms lay in helping to reduce the extent of warfare. The saturation of the North Island tribes with powerful military firearms during the 1830's established a new intertribal balance of power as warfare became more costly and inconclusive.

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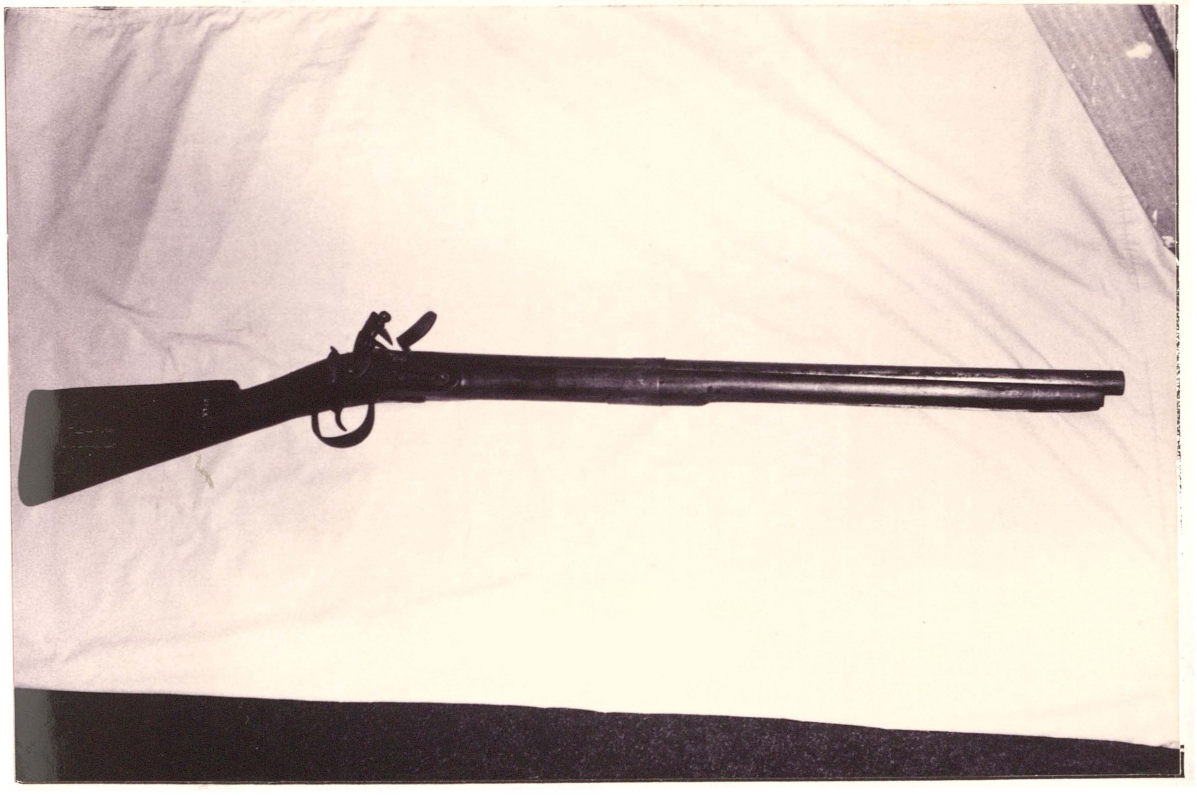
[99] Polack, J.S. New Zealand : Being a Narrative of Tales and Adventures ... between 1831 and 1837. Vol 2, London, 1838, p 300 - 321. Wade, W. R. p 28. Maning p 41. Thompson pp 132 - 133.

[100] Smith, P.B. pp 375 - 444.

[101] Polack J. Vol 2, p 40.

Cheap flintlock guns were an important nineteenth century export industry in Britain and the acquisition of these firearms by Maori, set in train the two decades of intertribal conflict that characterise the Musket Wars. To date no definitive study has been made by military historians on the worldwide impact of the cheap trade gun on traditional patterns of warfare among indigenous people during the nineteenth century. Similarly, books and articles written for New Zealand gun collectors and enthusiasts, continue to overlook the importance of the trade gun as a military weapon. Yet during intertribal battles in New Zealand and during nineteenth century battles against European forces around the globe, the cheap trade muskets were frequently deployed by tribal warriors with considerable imagination and surprising effectiveness.



Flintock Trade Musket (hakimana)
Auckland War Memorial Museum

Chapter Two

THE FLINTLOCK GUNS

During the early decades of the 19th century, Maori society exhibited a remarkable capacity to accept a variety of new European technologies and to adapt these to fit their own culture. Nowhere was this process more evident than in the acculturation of flintlock firearms into Maori peacetime rituals and established patterns of warfare. While much of the primary literature on the nineteenth century European gun trade dwells upon the limitations of the cheap trade muskets, the tribal arsenals contained a diverse range of flintlock weaponry. More destructive than the musket in the close quarters fighting of the period, these double barrelled muskets, blunderbusses, double barrelled fowling pieces and seven barrelled volley guns were keenly sought, the type and quality of the guns reflecting the enterprise, status and aspirations of their warrior owners. During the years 1818 to 1824 when the Ngapuhi inter-hapu arms race created an unprecedented demand for firearms, guns, shot and powder were the only items the Maori would accept as trade goods.[102] Richard Cruise recorded in his Journal of 1820 that; "the natives are able to command the trade they choose to take. The consequence is the most murderous weapons have been disseminated amongst them."[103] Augustus Earle, in 1827 lamenting the inability of Maori to use flintlock guns effectively, wrote also of the "dreadful effects" of these firearms in the intertribal wars.[104]

Cheap mass-produced flintlock muskets were the mainstay of the northern gun trade. During the tumultuous years 1818 to 1824, a period characterised by the rise of powerful marauding musket taua, the carnage of the great rakau-musket battles and the fall of the great iwi fortifications, Ngapuhi eagerly accepted guns of any origin and description.[105] Acquisition of a flintlock weapon at this time conferred great mana on the possessor and gave the hapu an important psychological advantage over competing hapu and enemy tribes, regardless of their weapons' reliability.[106]

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[102] Cruise, R. p 55.
[103] Cruise, R. p 55.
[104] Earle, A. p 85.
[105] Cruise, R. p 85.
[106] Te Kuiti p 73. Dr Fairfields Evidence to Commissioner Bigges Inquiry, May 1821. McNab, R. Vol 1, pp 551, 552.

The northern gun trade was never an exclusively English and American preserve. The French Naval expeditions to New Zealand under Louis Duperrey (1824) and Dumont D'Urville (1827) carried surplus military muskets to trade for provisions. Duperrey's vessel *La Coquille* carried a supply of antiquated shotguns in its armoury to exchange for curios that would enhance the officers' natural history collections.[107] D'Urville on the *Astrolabe* exchanged powder and trinkets for tattooed heads and fine cloaks for the same purpose.[108]

Flintlock blunderbusses or 'thunder guns' were prized weapons and as early as Marion Du Fresne's visit to the Bay Of Islands in 1772, Maori showed a special fascination with the destructive potential of these guns.[109] Constructed for private, sporting and military use, the common blunderbusses of the period generally weighed ten to twelve pounds and were distinguished by their short length, bell shaped mouths and massive brass barrels of .90 to [110].98 calibre. The Church Missionary Society leader Thomas Kendall was reported to have obtained eight blunderbusses and 150 lbs of gunpowder from the whaling vessel Martha in 1818 to trade to Maori 'for personal gain'.[111] For the toa engaged in the raids and desperate rakau-musket battles in the period 1818 to 1823, these blunderbusses had many practical advantages over the musket. The bell-mouthed barrel made for fast and easy loading and the shotgun effect of the blast (the standard military load of the day was 20 pistol balls and 120 grains of black powder) produced ruinous casualties at close range.[112] The blunderbuss could take greater charges than the double barrelled and seven barrelled volley guns and drove the shot much harder for the initial 15 to 20 yards.[113] The brass barrels also resisted the corrosive effects of salt water and in emergencies the warrior could substitute round, smooth pebbles for shot.

Because of their destructive effect in the close range warfare of early period, blunderbusses were regarded by some tribes as equivalent in value to the double barrelled guns. As late as 1829 Captain Clarke of the *New Zealander* was able to

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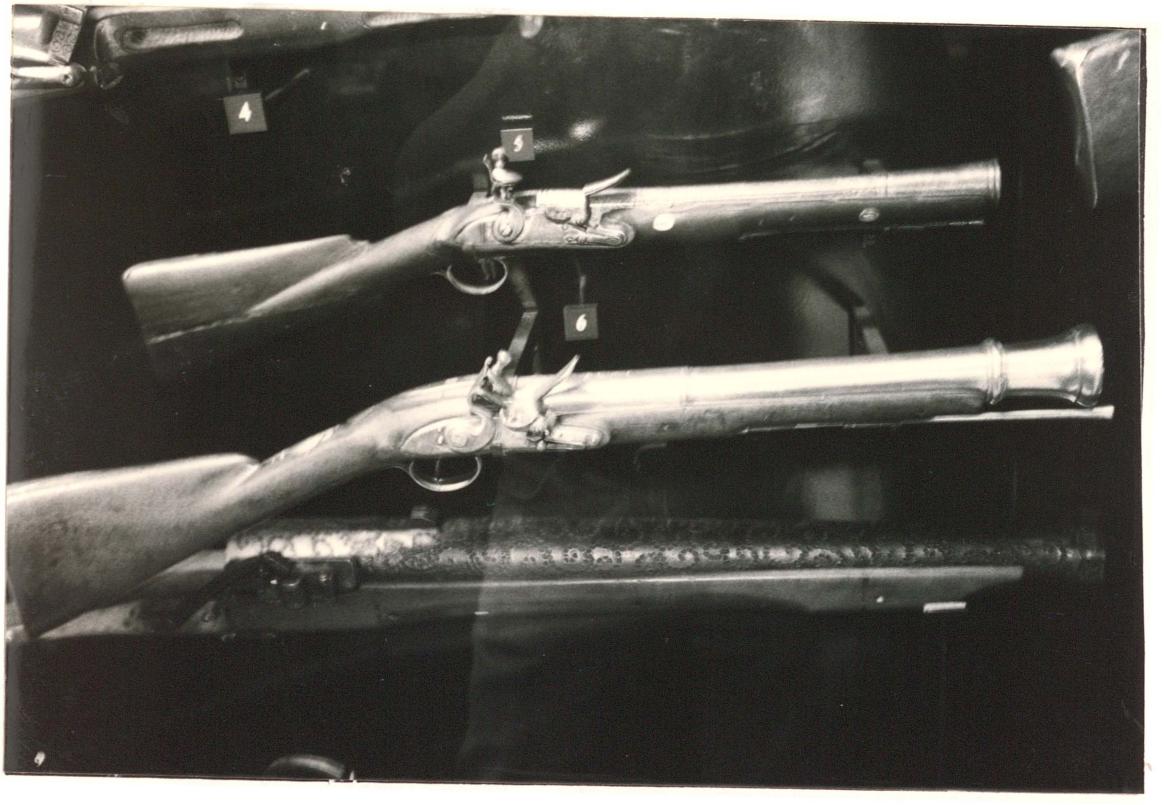
[107] Sharp, A. *Duperrey's Visit To New Zealand in 1824*. pp 34 ,35.
[108] Wright, O. *New Zealand 1826-1827*. (From The French Of Durmont D'Urville). Wellington, 1950, p 200.
[109] Rouxs Journal, June, 1772. Cited in McNab, R. Vol 1, p 409.
[110] Brown, M.L. p 232.
[111] Correspondence of William Hall to Secretary Church Missionary Society. Sept. 13th 1820. Cited in Binney, J. *The Legacy of Guilt - A Life of Thomas Kendall* (Oxford, 1968) p 241.
[112] Held, R. p 102.
[113] Held, R. p 102.

ransom John Atkins, the first mate of the captured brig *Haweis* from his Ngati Awa captors at Whakatane.[114] The ransom comprised a blunderbuss, a double barrelled fowling gun and three canisters of powder, an amount C.W. Vennell called "a princely ransom in the currency of the coast".



Flintlock Blunderbusses (top and centre)
Auckland War Museum

Cruise wrote in his Journal entry of February 27th, 1820 that the tupara or double barrelled flintlocks were the most valuable of all earthly possession to the Maori.[115] These guns were prized for their reliability and their capacity to deliver a vital second shot during battle. Hongi Hika, his tribal armament lagging behind that of his rivals Te Morenga and Te Toru by 1820, was prepared to travel to England with Missionary Thomas Kendall in the hope of acquiring such a weapon, telling Richard Cruise, "he should die if he did not go - that if he once got to England he was certain of getting twelve muskets and a double barrelled gun."[116]

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[114] Vennell, C.W. *The Brown Frontier New Zealand 1806-1877* (Auckland 1967), p 84.
[115] Cruise, R. p 20.
[116] Cruise, R. p 20.

In London Hongi and his companion, the chief Waikato, each received a fine double barrelled fowling piece as a gift from the English Monarch George the Fourth.[117] The appearance of these guns in the Bay Of Islands in 1821 only served to fuel the desire of their fellow musket chiefs to possess weapons of this type. The chief Te Toru attempted to acquire one of these pieces from the *Dromedary* in exchange for 30 fine mats in 1820, an extraordinarily lavish offer for the times.[118] Hongi was more successful, acquiring his second fowling piece from the missionary Rev. John Butler in 1821 in exchange for 16 hogs.[119]

Double barrelled guns were ideal weapons for the close combat that characterised the great rakau - musket battles of the early 1820's. The tupara were loaded with buckshot or ball or a combination of both, and having discharged both barrels the chiefs generally commenced to fire their reserve muskets and flintlock pistols while their slave retainers reloaded the piece.[120] These pieces were either finely crafted shotguns with barrels of medium length designed for for birding or wildfowling, or Army and Naval double barrelled muskets designed for military purposes and noted for their accuracy in open warfare. Surplus military double barrelled guns were evident in the Bay of Islands in increasing numbers by 1827. Augustus Earle in the Bay Of Islands was astounded by the alacrity and efficiency of Ngapuhi in cutting and delivering logs to the ship *Harmony* of London in 1827 once the leading toa "had seen the fine double barrelled guns and store of powder to be given as payment for the wished for freight."[121] Double barrelled guns of French origin were also evident in the region at this time following the visit of the French naval ship, *Astrolabe* under Dumont D'Urville in March 1827. Earle test fired one of these French guns of "doubtful strength" at Whangaroa in 1827 by loading it to the muzzle with powder and discharging it by means of a string attached to the trigger. A young chief and his companion who test fired an identical gun used the same technique but fired the piece by hand, consequently were "badly mangled" when the piece exploded.[122]

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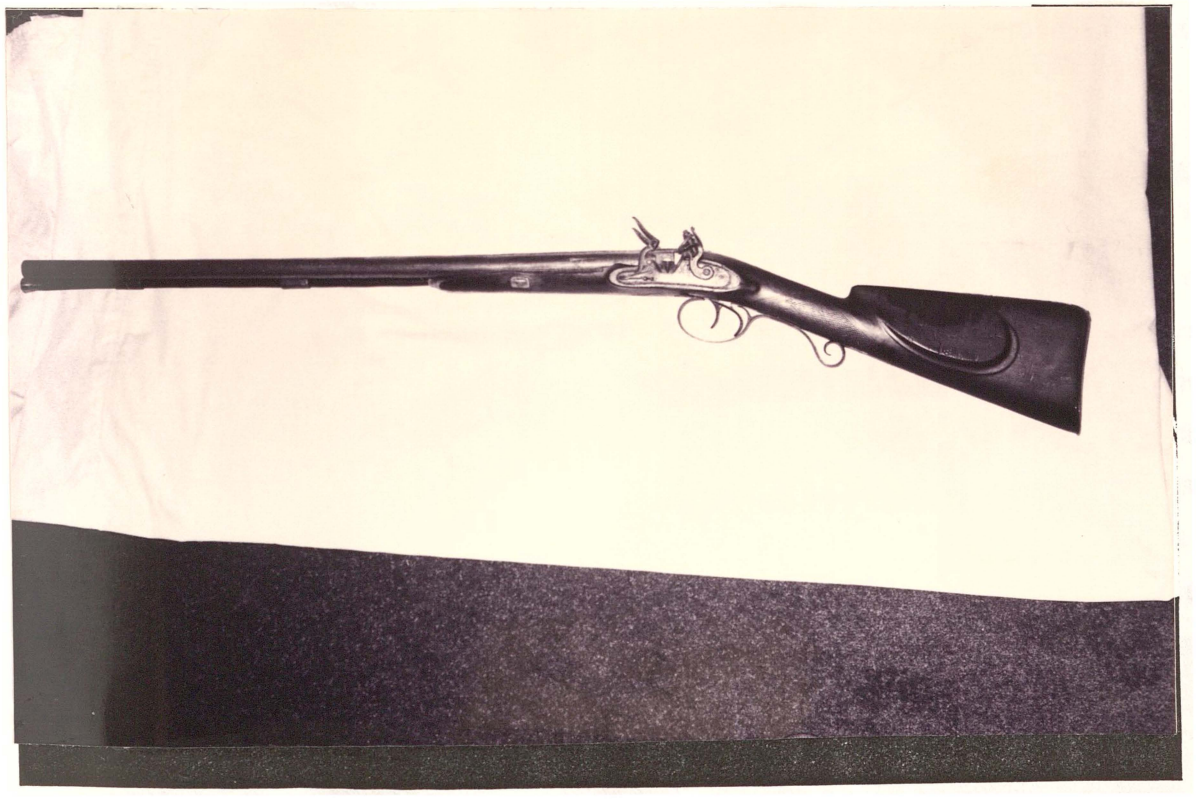
[117] Earle, A. p 87.
[118] Cruise, R. p 7.
[119] Barton, R.J. p 168.
[120] Marsden, S. p 375.
[121] Earle, A. p 45.
[122] Earle, A. p 110.

The enterprise displayed by Ngapuhi in their quest for tupara was impressive. In 1834, Ngapuhi toa under Titore were engaged in supplying *HMS Buffalo* at the Thames with Kauri spears in exchange for a huge consignment of arms that included 20 double barrelled guns and 10 fowling pieces.[123] From 1820, the tupara was the firearm most commonly associated with Maori of chiefly rank. While European observers continued to note deficiencies of the cheap trade guns throughout the 1820's and 1830's their criticisms contrast sharply with their admiration for the magnificent double barrelled guns designed for private use that were acquired by enterprising chiefs.[124] Such admiration could carry certain risks, while examining the fine shot gun gifted by George the Fourth to the chief Waikato, at Rangihoua in 1828 Henry Williams, fascinated with the double triggered mechanism of the weapon accidentally discharged the weapon narrowly missing the chief Tohitapu. Henry Williams says that Tohitapu "turned around and told me I had nearly shot him. I knew that, and felt inexpressibly thankful that it was not so.... Had any accident happened, our lives would probably been forfeited, tho the fault was Waikato's."[125]



Double Barrelled Flintlock Gun (Tupara)
Auckland War Memorial Museum

[123] Sexton, R. p 33.
[124] Earle, A. pp 86, 87.
[125] Williams, H. p 150.

Some unusual flintlock guns were obtained by Ngapuhi during the Musket Wars. Among the flintlock guns Te Pehi Kupe of Ngati Toa acquired in London on his armaments gathering trip in 1839 were muskatoons.[126] The muskatoon was a short, heavy musket with a large bore. This weapon threw a ball weighing up to 7 1/2 ounces, and was designed for close quarters fighting. Some muskatoons had bell-like mouths, like blunderbusses. They were most effective in repelling boarders in naval warfare but kicked very dangerously.[127]

The trader, Joel Polack, recorded that seven barrelled guns had been exchanged for timber during the 1834 voyage of *HMS Buffalo* to the Thames.[128] These were innovative Wilson volley guns of :65 calibre consisting of a 20 inch barrel around which six others of equal length were brazed. TShe overall length of the volley gun was 36 inches and the single firelock discharged all barrels simultaneously.[129] Ordered by the Royal navy from armament contractors, these smoothbore guns were intended for use by sailors and marines in the rigging of HM warships to repel boarders and eliminate enemy gunners. The navy discontinued their use after the siege of Gibraltar in 1782 as they were no more effective than the blunderbuss[130] in close range fighting.

Captain Sadler of the *Buffalo* requested on two occasions that the Admiralty supply a quantity of Congreve war rockets as an article of barter with Maori.[131] By 1827, the Maori were becoming increasingly interested in obtaining heavy guns and Congreve rockets would have been a welcome addition to the numbers of cannon and carronades featuring in intertribal battles. The Wilson volley gun was one of the few flintlock weapons not well received by Maori. The Navy had found it difficult to reload and it frequently misfired.[132] Polack notes that they 'were held in little esteem' by the Maori probably for the same reasons.[133] During the 1820's such weapons were required for close range warfare but by 1834, good quality muskets with superior accuracy were required for the open style of fighting that characterised intertribal

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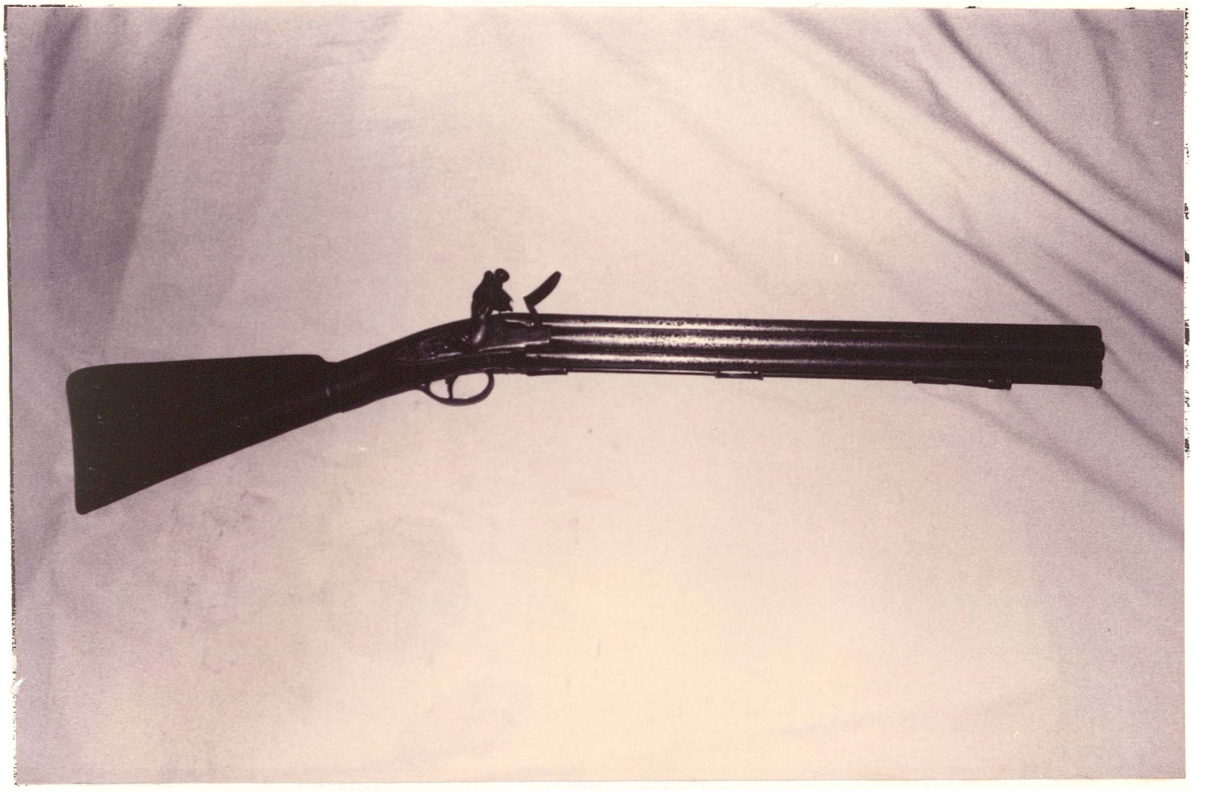
[126] Craik, G.L. p 281
[127] Masefield, J. p 22
[128] Sexton, R. p 33
[129] Brown, M.L. p 233
[130] Brown, M.L. p 233
[131] Sexton, R. p33
[132] Brown, M.L. p 233
[133] Polack Vol 2 p 45

battles. In this era the great variety of flintlock weapons with diverse origins and varying quality gave way to the more reliable proofed Brown Bess musket



Seven Barrelled Volley Gun
Auckland War Memorial Museum

Superior muskets made for private sporting and military use were evident in small numbers throughout the 1820's and were evident in moderate numbers during the years of the flax boom 1827 to 1832. The missionary, Thomas Kendall, gifted twenty one muskets of good quality to various Bay Of Islands chiefs on his return from England via Sydney in 1821. Hongi Hika who accompanied Kendall is reputed to have returned with 300 muskets. The ratio of good muskets to cheap trade muskets in Hongi's arsenal is unknown, but Polack states that George the Fourth "had seen fit to allow Hongi a number of arms and ammunition", and these guns will undoubtedly have been of superior quality.[134] The first reference to Tower muskets in the north occurs in 1827. Earle accompanying the chief Rewa on a wildfowling expedition,

[134] Polack, J. *Parliamentary Papers,* p 87.

noted that Rewa was armed with a Tower musket as were the warriors who welcomed Earle's ship to the Hokianga.[135] Many of these Brown Bess muskets arrived aboard Royal Navy ships after 1820 that, unlike *Dromedary*, freely exchanged surplus military firearms for cargoes of spars and flax.[136]

The demand for better quality muskets by Ngapuhi during the late 1820's and early 1830's coincided with the shift in tactics by the rakau equipped tribes, away from the static or mobile defence in or near fortified position to open warfare where the massed volley fire of the cheap iron guns were ineffective. With the fall of the last great iwi fortification on Mokoia Island, Rotorua in 1823, the great Ngapuhi musket taua numbering 1500 to 3000 toa gave way to smaller predatory armed expeditions, numbering between 200 and 1200 toa. In this period the marksmanship, power, accuracy and reliability of muskets became increasingly important. The Brown Bess, correctly charged with powder and loaded with a tight fitting ball "could make a shot tell with deadly impact and fair to good accuracy at 120 yards or more".[137] There are more numerous instances of outstanding marksmanship by well armed Maori warriors during the battles of the Musket Wars and the large bore of the Brown Bess, (the largest in service in Europe) allowed all calibres of ammunition to be used, accommodating the warriors habit of substituting stones for lead balls when ammunition was in short supply.[138]

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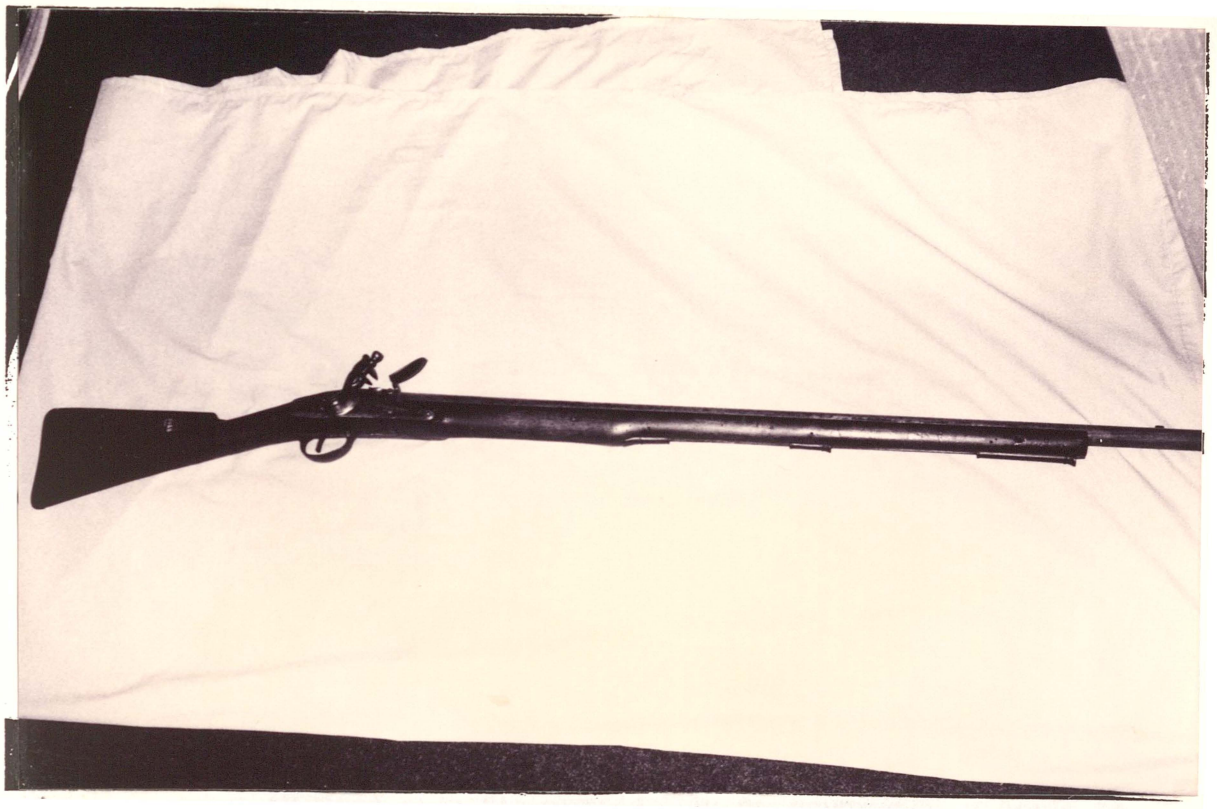
[135] Earle, A. p 58.
[136] Sexton, R. p 33.
[137] Held, R. p 112.
[138] Cruise, R. p 172.



New Land Pattern (Brown Bess) Infantry Musket
Auckland War Memorial Museum

By the early 1830's the Maori were able to recognise a good musket preferring "those which bore the Tower stamp, and fancied the stocks which were dark in colour and had most brass on them."[139] In 1833, the American whaler, Knights, was told that 'muskets are now used altogether as instruments of war by the natives of the North Island and they are as now as good judges and keep them in good order as the Europeans.'[140] Ngapuhi with their early monopoly on the musket trade were beginning to barter with more caution and were insisting on muskets of good quality as early as 1824. The French explorer Louis Duperrey, visiting the Bay on *La Coquille* in 1824 noted that this practice had its disadvantages.

> "The tricks which Europeans have so often played on New Zealanders, the shameful manner in which the good faith of these men has been betrayed by whalers, have made them extremely suspicious in conducting business. Before concluding an exchange of any importance they spend a long time examining the objects they are offered; the slightest scratch in an axe, or any variation in the colour or texture in the gunpowder and the firearms is enough to make them refuse them. They were never willing to take in

[139] NcNab, B. *Old Whaling Days* p 117.
[140] *Journal of the Brig. Spy of Salem*. Knights, John.B. Master. March, April 1833 Peabody Museum. Cited in HM Wright p 92.

exchange the muskets from La Coquille because of the band on them, which they said prevented them from aiming straight."[141]

The muskets bearing the Tower stamp, denoted that they had been made by British government or by contractors for the government. Mass produced in Birmingham and London, particularly in the armouries in the Tower of London and on Tower Wharf, where the barrels of theses gunds were test fired or proofed. These military muskets were basically well made, and considered very reliable for their type.[142] Known officially as the 'New Land Pattern Musket', 'The Sea Service' or 'India Pattern Musket', depending on minor variations in length and construction, they were known collectively as 'Brown Bess'.

"Brown Bess: '....it fired an iron ball 3/4 of an inch in diameter. Its powder was carried in paper cartridges. To load it you hit off the end of the cartridge and poured a little of the powder in the firing pan, and the rest down the barrel. Then you put the ball and the wadding down the muzzle and rammed it all tight with the ramrod. In an emergency it could be rammed down by banging the butt on the ground, but that only worked if the ground was hard. A well trained man could load and fire two shots in a minute but after about fifty shots the flint which ignited the powder wore out. As the powder clogged the barrel ramming became progressively more difficult until you were forced to stop to clean the barrel out. You had to stand up to load the musket and therefore you usually fired it standing. A musket ball could be lethal at several hundred yards but it needed much more luck than skill to hit a man or even a whole rank of them, much over 70 - 80 yards away."[143]

In classical Maori warfare, a chief's rank was easily identifiable by his possession of the precious mere pounamu. In the early phase musket warfare, similarly, the flintlock pistol became the favoured weapons of fighting chiefs. Pistols however, never replaced the mere pounamu as the principal weapon of chiefs, rather, both were generally carried together. Flintlock pistols were employed as weapons of defence during the great rakau-musket battles of the early 1820's. When Hongi Hika became trapped attempting to climb a palisade at Tamaki he was able to save his own life by presenting two empty pistols at his attackers. By the mid 1820's they generally were regarded less favourably with the trend to open warfare and during the 1830's

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[141] Blackmore, H.L. p 37.
[142] Wilkinson, F. p 79.
[143] Howarth, D. p 59.

feature increasingly rarely in the European descriptions of personal chiefly armaments.

The period 1814 - 1824 was the heyday of the flintlock pistol or kope in New Zealand. The description by Marsden and Nicholas of the Bay of Islands chiefs Hongi, Ruatara, and Korokoro, and the Whangaroa chiefs Te Pehi and Te Wharemu in 1814, reveal all five armed with pistols.[144] By 1820 pistols had become an important part of the gift giving process between chiefs and tribes. Hongi presented the Ngati Paoa chief, Te Hinaki, with a gift of two pistols in 1821[145], and Thomas Kendall presented pistols to Ngapuhi chiefs on his return from London in 1821.[146] Hongi's arsenal of guns, obtained from Port Jackson that year, contained more of these weapons. Some pistols seen in the hands of chiefs and their near relations were the large horse or cavalry pistols.[147] Most of these were the common mass produced weapon of the period with a 12 inch barrel and notorious for their limited accuracy.

Flintlock Cavalary Pistol
Auckland War Memorial Museum

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[144] Nicholas, J. Vol 1, pp 128-129.
[145] Marsden, S. p 358.
[146] Bareton, S. Vol 1, p 175.
[147] Nicholas, J. Vol 1, p 199.

The toa took a number of steps to customise and personalise their newly acquired flintlock guns. Individual guns were assigned special names, often the name of an enemy warrior, chief or tribe the new owner wished to attack. Maori made their own cartouch or cartridge boxes and it became customary to cover these with the tattooed skin of the defeated enemy, the posterior or thigh skin being preferred for this purpose. August Earle wrote at the Bay of Islands in 1827: "A neighbour of mine very lately killed a chief who had been tattooed by Aranghie (a master carver) and appreciated the artists work so highly, he had skinned the chieftains thighs and covered his cartouch box with it". [148] This practice became customary throughout New Zealand. As late as 1836 "the warrior Hikareia killed at Te Tumu ... was flayed by his cousins and one of them secured his uncles handsome rape (posterior tattooing) with which he made an ornamental cartouch box".[149]

With the commencement of the regular southern raids after 1817, it was evident that the flintlock gun had become the most important tactical component in Ngapuhi warfare. Richard Cruise note in 1820 that "the original arms of the people ... have ceased to be much prised as defensive weapons. They now attach the bayonet, the axe, and the tomahawk to a stick, but their great reliance is placed on the musket". [150] A fuller description of a tribal armament is this early stage of musket acquisition was provided by the missionary William Wade:

> "Their war weapons on this occasion were various; the most common were muskets, and native spears, some twenty feet long, some more. Many had iron hatchets, either slung to the wrist with a short handle, or fixed in the handle as a long walking stick, much like the old executioners hatchets. A few brandished long native hatchets made entirely on wood, and ornamented with tufts of feathers; and there was one man with a long flat piece of whalebone, slightly curved at the end and pretty sharp at the edges."[151]

It is important to bear in mind when researching Maori warfare in this period, that the flintlock gun represented the pinnacle of European achievement in military technology during the 1820's and for much of the 1830's. Perhaps then it is not

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[148] Earle, A. p 124.
[149] White, J. Vol 6, p 234.
[150] Cruise, R.A. p 129.
[151] Wade, W. *British Parliamentary Papers*, p 198.

surprising that the prevailing view in the period espoused in their writings by a succession of European visitors and temporary residents was that the Maori was 'an untutored savage' inherently incapable of employing European firearms effectively. This contention does not stand up under close scrutiny of the circumstantial evidence provided by those participating closely with the tribes, particularly missionaries and Pakeha-Maori and the French naval officers who were keenly interested in investigating and recording the nature of the Maori warfare in the period.

Chapter Three

PROFICIENCY WITH GUNS

Warriors had been attracted by the noise and mystique of the musket long before they employed them as weapons of mass destruction. The flintlock musket was a device totally different from traditional Maori weapons of stone, bone and wood. The perceived supernatural qualities of the musket, the thunderous report, the lightning flash from the muzzle, the clouds of smoke, and the vicious recoil arising from the act of firing, were sufficient reasons to seek ownership and mastery of these powerful devices.

Describing his first impressions of the Europeans and their guns, the chief Pangari, of Ngapuhi, stated:

> "When I first saw the Matai (Europeans) I took them to be supernatural beings who had come from some land much superior to ours. When I saw guns I thought that thunder and lightening had been confined within tubes, and that those sea demons, the Matai, could hurl them against anything they directed the tubes at."[152]

Mastering the mysterious operations associated with loading and firing a weapon whose thunderous roar alone was often sufficient to paralyse the enemy with fear, gave the tribal musketeers great confidence if not a sense of invincibility. Victor Lottin aboard the *La Coquille* at the Bay of Islands in 1824 observed "Armed with a patupatu, the New Zealander braves death, owner of a matchlock [flintlock] he believes himself invincible."[153]

Despite the many difficulties associated with acquiring and maintaining flintlock guns in working order, and the ongoing problems of munitions supply, most Ngapuhi toa were prepared to persist with the new device. The toa saw muskets as a technological improvement over traditional weapons and were attracted to their capacity to deliver death at a distance beyond that attainable with spears and darts, the traditional Maori missile weapons. In the event of a lucky hit on an opponent, the

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[152] Best, E. *The Maori As He Was.* Vol 2 (Wellington, 1925), p 281.
[153] Sharp, A. 1824, p 45.

damage to human flesh inflicted by military weapons in use during the 1830's was sufficient to satisfy the fiercest toa. Describing the casualties of an intertribal skirmish at Whangaroa in 1837, to the British Parliamentary Select Committee on New Zealand one European witness reported: ".....before we arrived at their village, one chief was killed by a musket ball passing through his skull, another had a considerable part of his bowels blown out... and a third was severely wounded by two musket balls passing through his thigh."[154]

During the year 1820, fourteen South Sea whalers entered the Bay of Islands to trade.[155] At this time, Ngapuhi would only trade for guns, and the unprecedented distribution of flintlock guns "of the worst description"[156] throughout the region compelled many toa to make the transfer from mastery of stone age weapons of bone, stone and wood to mastery of the flintlock gun, Europe's most advanced military technology.

The transition was not an easy one. Overcoming the fear associated with the flash, thunder, smoke and recoil of the flintlock was a major obstacle for stone age warriors who believed that the new weapon had a spiritual life of its own. A Ngai Tuahuriri chief recalled the first experiences of his warriors with muskets preceding a South Island battle in 1827:

> "It was on this march down the Kaitorete Spit that our old Kaiapoi warriors first handled a musket. It was very amusing to watch their efforts to conceal their nervous dread of the weapons. Their hands trembled and shook as they took hold of them, and at the sound of the report that followed a pull of the trigger, they dropped the guns to the ground exclaiming 'Eh he! How wonderful are the works of the pakeha!' But they soon got over their fears, and learned to use muskets with deadly effect."[157]

In the absence of formal training, proficiency with the musket could be obtained by the warriors only after practice. The regularity with which the warriors fired their guns depended on the supply of powder from visiting ships. Limited quantities of muskets and powder, however, made proficient musketeers. John Hunter, mate of the brig *Active,* giving evidence at Commissioner Bigges inquiry into New Zealand in

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[154] Parliamentary Papers. p 217.
[155] Sharp, A. 1824, p 113.
[156] Cruise, R.A. p 217.
[157] White, John. Vol 3, p 275.

1820 observed that target shooting had become a popular event among Maori at the Bay Of Islands.

> "QUESTION: Have you not observed in your late voyage to New Zealand the natives using muskets?
>
> ANSWER: I have seen them frequently, but not in great numbers, occasionally with bayonets fixed but they were only used for firing at targets or marks.
>
> QUESTION: What is the greatest number of muskets you have seen at any on time in New Zealand?
>
> ANSWER: On the occasion of meeting of two or three hundred people for firing at marks, I never saw more than ten muskets together, nor in any canoes did I ever see more than one or two."[158]

The Ngapuhi chiefs were the principal owners of flintlock guns before 1816. Long experience with guns and their access to better quality guns enabled the chiefs of many Bay of Islands hapu to acquire considerable skill as marksmen. After 1814 the missionaries noted the importance of the musket in wildfowling and birding activities in the north. Nicholas on lending chief Kawiti a gun for shooting ducks noted 'he soon gave evident demonstration that he could use it to some purpose, for he proved to be an excellent marksman.'[159] Wildfowling and birding with muskets enabled the chiefs to feed Nicholas and Marsden during their early travels in the Bay region[160] and enabled the common toa to develop shooting skill with their newly acquired weapons.[161] In locations where gunpowder was scarce and expensive, opportunity for practice was extremely limited and the standard of marksmanship was likely to remain poor.

In the notes to his 1820 journal, Major Richard Cruise of the 84th Regiment noted;

> "As yet, the firelock in the hands of the mass of the New Zealanders is not dangerous: they use it very awkwardly, seldom hit the object unless close to it, and they lose an immensity of time in unnecessary action in looking

[158] John Hunter. *Evidence To Commissioner Bigges Inquiry.* McNab, R. p 505.
[159] Nicholas, J.L. Vol 1, p 172.
[160] Marsden, S. p 337. Nicholas, J.L. Vol 1, p 172.
[161] McNab, R. Vol 1, p 505.

for a rest and in taking aim. We have seen them when about to shoot a pigeon, climb the tree where it is sitting, (The New Zealand pigeon being very tame) with a caution and address peculiar to themselves, and put the muzzle of the gun a foot from the object themselves before they attempt to fire it."[162]

These comments accurately describe the activities of warriors in the region who were in the process of acquiring skills with their newly obtained weapons. The predominance of shoddy trade guns precluded the attainment of any degree of accuracy beyond close quarters. The toa soon learned to use birdshot or in emergencies, small stones as a substitute when birding or wildfowling.[163]

Augustus Earle at Hokianga in 1827, wrote that "the New Zealander while handling a musket is in quite a state of trepidation, and though it is his darling weapon, he always seems afraid of it, and is never sure of his aim till he is quite close to his object."[164]

For the common toa armed with cheap trade guns, firing point blank was often a necessity to ensure success when hunting or wildfowling. Warriors armed with 'proven' Tower military muskets will have experienced the same difficulties in achieving any degree of accuracy beyond fifty yards as did the European infantrymen.

Holding a heavy musket on target was difficult given the time lapse between the trigger being pulled, the powder igniting in the pan and the main charge igniting in the bore. This delay was increased by the slow burning 'bright powder' needed for the trade guns as 'fast powder' could burst their muskets.[165] The main problem in attaining maximum accuracy from a musket arose from the shooters tendency to flinch.

"The massive recoil of a large bore musket is enough by itself to bring about an anticipatory jerk or flinch as the trigger is pulled. Such a flinch may drastically reduce accuracy. One may of course gradually reduce or eliminate the flinch altogether through practice. Add to the recoil however the considerable delay between trigger pull, hammer fall, flint sparking, primer ignition, main charge ignition, the smoke from the primer which

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[162] Cruise, R.A. p 281.
[163] Cruise, R.A. p 282.
[164] Earle, A. pp 92, 93.
[165] White, G. p 181.

obliterates the target and bits of burning gunpowder sprayed back into the face of the shooter, and the flinch is understandable."[166]

Earle was of the opinion that the aim of the Maori "would be surer if they had large and ferocious animals to hunt or contend with."[167] Certainly by 1827, Ngapuhi veterans had acquired considerable experience in hunting and contending with the most dangerous game of all. As early as 1819, the northern Maori were actively engaged in attempting to improve their marksmanship and were rapidly accumulating a body of knowledge by which muskets could be serviced and better quality muskets obtained.[168] Younger toa acquiring their first guns could expect to receive advice from veterans. The veteran warrior Tuta Nihoniho provided advice for warriors based on the knowledge passed down to him from his elders, men who had fought in and survived the Musket Wars:

> "Remember also at the time when you are firing, and if your enemy is in a pa, or such cover as bush or rocks, it is a good thing for you to heap up earth, or stones, or timber as a breastwork for yourself, to ward off the bullets of your enemy, also to serve as a rest for your gun when firing at the enemy. Be sure to remember to study the wind at such a time, and if it is blowing from your left point the muzzle of your gun to the right side of your enemy (as he faces you), then the thrust of the wind will bring the bullet of your gun in line with your enemy."
>
> "If the fight is going on under hills, observe the wind, and if the wind is blowing downwards from the ranges line the muzzle of your gun on the head of your enemy, the wind will depress the bullet so as to strike him in the breast or stomach. Should the fight occur among the hills, and the wind is an eddying-upward one, then aim between the thighs of your enemy; the upward wind, combined with the lifting force of the powder, will force the bullet upward so as to strike him in the stomach, breast or head."[169]

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[166] Given, B.J. pp 103, 104.
[167] Earle, A. pp 92, 93.
[168] Kendall, T. *Evidence to Commissioner Bigges Inquiry.* McNab, R. p 443.
[169] Nihoniho, T. p 51.

The popular view of Maori as poor marksmen persisted throughout the period and as late as 1837, The *Sydney Herald* continued to denigrate the facility of Maori with European firearms. "About one in twenty, attempts to take aim; one eye is then shut, but more frequently both, before they fire, thus losing the aim they had previously taken.[170]

Such accounts are at variance with reports of calculated and outstanding marksmanship by Maori. In 1815 Hongi Hika showed Marsden his special 'secret corner' at Okurotope pa from which he sniped attacking warriors[171] and the chief Taui told Cruise in 1820 how he had trapped and systematically shot twenty-two of the enemy during a raid to the Thames region.[172] The most celebrated account of marksmanship during the Musket Wars occurred during the siege of Te Namu pa in June 1833, when some 800 Waikato warriors attacked 150 Taranaki under their chief Moke. From an elevated platform (puwara) in the pa, Moke employed the one musket owned by Taranaki with unfailing accuracy to kill the Waikato chief Taipuhi and drive off six separate assaults by Waikato. Thereafter, Moke was known as Te Makatea, (the clear eyed).[173]

Such feats of marksmanship were possible with muskets of reasonable quality provided the weapon was carefully loaded and the heavy barrel steadied against a rest during firing. During the Ngapuhi attack on Mokoia Island on Lake Rotorua in 1823, Hongi Hika was shot and struck on the helmet by the Chief Te Hihiko firing the only musket in the possession of the Arawa from a position atop a meeting house. This gun was named Haere ata (Good morning).[174] For individual guns, a slightly different combination of powder, charge, wadding and projectile was required to obtain maximum accuracy.[175] Outstanding marksmanship was more difficult to achieve with the advent of the cartridge.

Loading a musket with a standard cartridge produced medium to poor results. The Brown Bess took a ball 1/24 of an inch smaller then its No 11 bore.[176] This

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[170] *Sydney Herald* 11 May 1837.
[171] Marsden, S. p 368.
[172] Cruise, R.A. pp 36, 37.
[173] Houston, J. *Maori Life In Old Taranaki.* (Wellington, 1965) p 65.
[174] Tarakawa, T. p 245.
[175] Girvan, B.J. p 95.
[176] Held, R. p 112.

facilitated rapid loading as the bullet could be rolled down on top of the powder without using wadding or the ramrod, hence a trained soldier might deliver up to six shots per minute. The disadvantage of rapid fire loading was the creation of 'blow by' and 'chatter' in the barrel which reduced the shot to a fraction of its potential power and accuracy.[177] Additionally, if the musket was presented in less than horizontal position, without wadding the ball could roll out again. More significantly, as the barrel became increasingly clogged with black, burnt powder, the ramrod was necessary to ram the bullet down the barrel. Failure to seat it firmly on the powder and bullet often destroyed the musket and injured the shooter. The number of quality weapons in the possession of chiefs were sufficient to highlight the limitations of the poor quality trade guns. The common warriors employed a range of innovations to compensate for these limitations.

Ngapuhi had definite reservations about the slow and methodical loading process demonstrated by the European visitors. A Bay Of Islands correspondent to the *Sydney Herald* on 7th May 1837, wrote:

> 'They say that we (Europeans) are too long in loading and we have too many forms to go through - that they could shoot us while we were looking at them; they nevertheless allow us to be better shots singly than they are. Alas, the conceit of human nature, they may perhaps learn better one day to their cost.'[178]

The British Army manual for the period lists twelve words of command for recruits engaged in the process of priming and loading muskets and the total number of separate movements numbered 21.[179] With a relatively slow rate of fire, of up to three shots a minute the chiefs engaged in the great rakau musket campaigns of the early 1820s, like their European counterparts had been compelled to draw up their forces in depth so as to be able to deliver a regular fire.

Proficiency with European firearms was the result of familiarity and practice and by 1820, the chiefs could increasingly rely on their warriors to load, reload and deliver volley fire, or delicately aimed fire that was effective in battle.

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[177] Held, R. p 112.
[178] *Sydney Herald* 7th May 1837.
[179] Wilkinson, A. p 66.

Ammunition

Ensign McCrae from *HMS Dromedary* noted at Commissioner Bigges' Inquiry in 1820 that Maori were manufacturing their own ammunition for there were some 500 stand of arms in the Bay Of Islands with bullet moulds.[180] Maori however were not reliant on supplies of lead or iron for use as ammunition. Cruise recorded in 1820 that 'though anxious in the extreme to get powder, they seldom care about bullets, substituting stones in their place.'[181]

Stones were sufficient to disperse frightened tribesmen in the pre-1821 rakau - musket campaigns where the sound of gunfire alone was often sufficient to cause a rout. Iron and lead balls however were necessary during and after the bitterly contested rakau-musket battles of the early 1820s and the chiefs were not prepared to embark on these expeditions until a sufficient quantity of balls and powder had been accumulated to supply the toa during a campaign.[182]

An important European innovation that accompanied the flintlock gun to New Zealand was the prepared cartridge, a charge containing one bullet and a quantity of powder wrapped in a tube of paper sufficient for one loading. The Maori quickly learned to make their own cartridges from any available paper and a feature of the marauding musket taua was the baggage train of boys, women and slaves who followed in the wake of the taua carrying provisions and casks of prepared cartridges.[183]

During the long war between Pomare and a confederation of Kororareka hapu in 1873, the missionaries William Williams and William Colenso were observing the fighting and noticed a warrior bite off the end of a cartridge before loading. Colenso noted that the cartridge covering which had been cast away was printed on paper, and picking it up found it to be a portion of the bible printed in English and bearing the inscription "How long have I to live?"[184]

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[180] Ensign McCrae. Evidence to Commissioner Bigges Inquiry. McNab, R. p 654.
[181] Cruise, R.A. p 282.
[182] Manning, F.E. p 193.
[183] Manning, F.E. p 53.
[184] Bagnell, A.G. Peterson, G.C. *William Colenso, His Life and Times.* (Wellington, 1948) p 77.

St John, at Kawhia, records a distinctively Maori use of cartridges when a hostile party approached his settlement. "I provided myself with a musket, buckled a cartridge belt on and placed cartridges between the fingers of my left hand after the most approved native style."[185]

Despite the general popularity of cartridges and cartridge making, traditional powder flasks and a pouch of patches and lead bullets that required individual loading were used concurrently by toa throughout the Musket Wars. Accomplished Maori marksmen preferred to load their firearms in the old style and in 1827 the Bay Of Islands chief Rewa, an aficionado of fine guns and waterfowling gave Earle two slaves to escort him to the Hokianga in return for a stocking full of powder, a bag of small shot and a powder horn.[186]

The missionary, Richard Davis stated in 1829 that Ngapuhi who were fully armed with muskets by this time, were prepared to exchange one good pig for thirty musket balls. [187] Considerable supplies of ball were required to conduct the ritualised inter-hapu battles in the Bay region with the Jewish trader Joel Polack reporting on this trend in 1837 to the British Parliamentary Select Committee on the war between Pomare and Kororareka hapu:

> "In May last there was a war in the Bay of Islands, I was there: there were about Thirty to Forty canoes went every day to fight at a Fortification up the river. I may say without Exaggeration, on my Oath, that at least 20,000 Rounds of Ball Cartridge was expended daily when they went out. The return of the killed and wounded proves that though there were perhaps 3000 Natives engaged, the loss was but a cipher. At another period, the valiant fellows lost three."[188]

The predatory campaigns conducted by Ngapuhi during the 1830's were directly influenced by the supplies of shot and ammunition available. During Titores long and unsuccessful siege of Otumoetai Pa at Tauranga in 1832, Ngapuhi were supplied with munitions in the field by the trader Hans Tapsell. [189] Their Ngai te Rangi rivals were compelled to send out their children from the pa during the lulls in the fighting to

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[185] St John, L.C. p 41.
[186] Earle, A. p169.
[187] Davis, R. p 60.
[188] Polack, J. *Evidence to British Parliamentary Select Committee on NZ.* pp 86, 87.
[189] Williams, H. p 417.

collect spent musket balls from between the lines.[190] The distinguishing characteristic of these last major Ngapuhi campaigns was the way in which the fighting petered out as supplies of shot and powder were exhausted with the taua returning home without achieving victory.

Gunpowder

There is no evidence that gunpowder was made locally by Maori during the Musket Wars even though a fairly satisfactory powder could be made wherever sulphur was found. Many indigenous peoples in Africa and Asia were producing gunpowder for their flintlock guns in the early 19th century and 'almost everyone could make powder if he had some guidance.' [191] Resident Europeans at the Bay of Islands did not or could not assist Ngapuhi in this enterprise. Factors further exacerbating the lack of an indigenous power trade were the remoteness of the central North Island thermal regions and the hostility of Maori in these regions to Ngapuhi, though large quantities of sulphur were noted by early European visitors to White Island in the Bay of Plenty. The absence of a local powder trade is not surprising given the great profits generated by Europeans trading with imported powder and the insatiable demand of the tribesmen for gunpowder. Under New Zealand conditions the wastage and spoilage of powder would have been considerable and throughout the 1820's and 1830's the literature refers to gunpowder as a scarce and expensive commodity.[192] D'Urville, cruising the East Coast region on the *Astrolabe* in 1827 exchanged three pounds of gunpowder for six pigs stating: "next to guns and more precious to them than diamonds to us at home, powder was of first importance in their eyes."[193] At times gunpowder appears to have been as expensive as a musket, both being acquired by enormous physical effort on the part of the hapu.

> "But supposing a man to get a musket for half a ton of flax, another half ton would be required for ammunition; and in consequence as every man in a native hapu, of say a hundred men, was absolutely forced on pain of death to procure a musket and ammunition at any cost, ... the effect was that this

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[190] Williams, H. p 432.
[191] White, G. pp 174, 175.
[192] Cruise, R. p 77.
[193] D'Urville Cited in Wright, O. p 129.

small hapu or clan had to manufacture ... in the shortest possible time, one hundred tons of flax, scraped by hand with a shell bit by bit..."[194]

During the first half of the 19th century, gunpowder shipped by English traders to the African continent contained seventy percent saltpetre while the French gunpowder had sixty-four percent. The powder with the low saltpetre content was preferred for use in the trade muskets as the less powerful explosion would not burst the barrel.[195] The quality of powder available to the toa was generally poor. Fortunately, the cheap Birmingham trade guns produced in enormous quantities for the 'native trade' were intended for this poor quality powder.[196] Light coloured or 'lighty powder' was produced for use in trade muskets, being made with bark as well as the wood from trees burned for charcoal. The bark was fully reduced to carbon during the initial stages of the explosion. It was thus only available for combustion at a later stage and the explosion was prolonged and less violent ..."What mattered where trade guns were concerned was that bad muskets needed bad powder."[197]

Imperfections in the powder could cause misfiring in confrontations with the enemy with catastrophic results for the tribal musketeers and misfiring muskets will have accounted for many of the Ngapuhi casualties incurred in the great rakau-musket battles. By 1824 Louis Duperrey in the Bay of Islands reported that:

"Any variation in the colour or texture in the gunpowder and firearms is enough to make them (the Maori) refuse them' ....Toui told me one day how these adventurers [the whalers] not satisfied with bringing them powder in bad condition, had often mixed cabbage seeds with it and that the Islanders had been no less puzzled than indignant when they saw that these would not ignite."[198]

This caution in purchasing powder was necessary for if a ships' captain or the traders failed to turn their barrels regularly, the powder clodded and the saltpetre fell to the bottom of the barrel.[199] The consequence was powder of varying quality and performance.

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[194] Manning, F. pp 207, 208.
[195] Kea, R.R. pp 204, 205.
[196] White, G. pp 174, 175.
[197] White, G. pp 174, 175.
[198] Sharp. pp 33, 34.
[199] Kea, R.A. p 205.

The number of warriors killed or injured by gunpowder explosions through carelessness is remarkable. The practice of making cartridges by firelight, or smoking while opening casks or serving out gunpowder were the principal reason for accidents. The flax trader St John, operating in the Kawhia region in 1832 described one such incident.

> "On one occasion the Ngatitamaho, anticipating an attack from the Ngapuhis, had opened a cask of gunpowder to distribute amongst the people of the tribe; it was placed in an open area in front of the dwelling-houses, the recipients had arranged themselves in a circle round it, and the dispensers were at work. About two-thirds of the quantity had been disposed of when Te Rangiratahu, a lad of about 13 or 14 years of age, a son of the chief of the tribe, walked up smoking a short pipe with a lighted coal in it, and leaned over to look into the cask; the coal naturally fell from his pipe, and there was a very pretty blow up. Cask staves and fire were sent in all directions; Hika, one of the senior chiefs, was killed, Te Rangiratahu, and several others who formed the circle, were severely burnt; and altogether there was a jolly row."[200]

Maori warriors believed that the musket was a mechanical device that possessed a life force or spirit of its own. This belief remained firmly entrenched in the minds of the toa, long after they had become familiar with the processes of maintaining, loading and firing their guns. The acceptance and mastery of the new mechanical device by Maori was not always accompanied by a rational understanding of the processes and forces at work in operating guns and the dangers of gunpowder. Accidents with gunpowder remained commonplace among Maori in all regions throughout the Musket Wars.

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[200] St John, L. C. p 54.

Chapter Four

REPAIR AND MAINTENANCE

By 1821 the whirlwind successes of the early musket expeditions and enthusiasm for predatory expeditions had given way to conscription as the designated method of mustering great composite armies in the north. The three Ngapuhi musket armies raised by Hongi Hika in the years 1821 - 1823 constituted a military revolution in the north for every able-bodied man was expected to acquire a musket, maintain it in good order and participate in the grand expedition of war.

Military activity was an integral part of Maori life and in rakau-Maori warfare, no specialist organisations or individuals were required. Generally warriors made their own rakau-Maori weapons or inherited them from their fathers. In musket warfare the chiefs increasingly delegated to individual warriors the specialist tasks of armourer, cartridge maker or gunner. During the year 1836 Te Puoho of Ngati Toa led a small expedition from the Cooks Strait region to attack Tuhawaiiki of Ngaitahu in the Foveaux Strait region. Tuhawaiiki on hearing news of Te Puohos advance "set Taare Tieri, a warrior who had served on whaling ships, the task of overhauling the three muskets at his disposal."[201] In later conflicts with British forces Pakeha-Maoris or European captives were also assigned the task of gunpowder making or gun repair when they were known to be proficient in these tasks.

Several early visitors to the Bay of Islands and some late nineteenth century writers have suggested that Maori neglected their flintlock guns so that they soon became unreliable or totally unserviceable.[202] Other contemporary accounts, however, reveal that the corrosive effects of the local climate on the poor quality trade guns and "the dreadful [economic] exertion"[203] necessary on the part of hapu to acquire them, compelled the toa to take extraordinary measures to ensure that their flintlock guns remained in operational order for as long as possible.

On campaign, a faulty musket detracted from the effects of the massed musket fire needed to destroy powerful conventionally armed forces. With the European

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[201] Anderson, A. *Te Puohos Last Raid.* (Dunedin, 1986) p 54.
[202] Cruise, R. A. p 282. McNab, R. *Old Whaling Days.* p 171. Travers, S. p 70.
[203] Maning, F. E. p 208.

hatchet carried as the principal side-arm, Ngapuhi musketeers with defective guns were also vulnerable in hand to hand encounters with warriors armed with two-handed striking weapons.

The shortcomings of mass produced flintlock firearms were proverbial long before the Maori sought to acquire them. The inferior guns of 'plain iron' manufactured in Birmingham and London and shipped in quantity to New Zealand aboard English and American whalers after 1818, scandalised a succession of contemporary civilian and military visitors to the Bay of Islands.[204]

WTL Travers, one of the few nineteenth century writers to recognise that Maori were fighting with cheap and trashy trade guns in this period states: "In effect, the muskets were of a very worthless kind, and would not, in a contest with European troops, have been considered particularly dangerous weapons."[205]

The limited numbers of cast-off military muskets, blunderbusses, seven-barrelled volley guns and double barrelled muskets shipped to New Zealand aboard English and French naval vessels after 1823 were similarly of dubious value, generally being worn out or obsolete. Judged by the European Army and Navy Ordnance Boards to be sufficiently useless, these guns were considered suitable items of barter for the 'colonial trade' and were distributed to the Maori in exchange for cargoes of spars, flax, or collections of native curios destined for the museums of Europe.[206]

Early Problems

A fierce inter-hapu rivalry was engendered by the Ngapuhi flintlock arms race in the Bay of Islands after the arrival of the missionaries in 1814. This arms race discouraged inter-hapu gun trading and the sharing of knowledge and skills in gun repair and maintenance until the formation of the first great allied marauding expeditions in 1818. For hapu with limited access to European shipping and ship's armourers, the task of maintenance in this period was an extremely difficult one. Given the warriors fundamental lack of knowledge, lack of cleaning equipment and

[204] Cruise, R.A. pp 282, 283. Davis, R. Journal 18th May 1829.
[205] Travers, W.T.L. p 70.
[206] Sharp, E. *Dupperey's Vist to New Zealand.* pp 58, 59.

lack of a pool of tribal knowledge of firearms on which to draw, these skills were acquired over time through the more costly process of trial and error. Problems multiplied as guns, powder and flints of inferior quality meant that thorough regular cleaning was imperative. The average life of a good musket was reckoned to be ten to twelve years but failure to clean a flintlock gun after firing quickly rendered it useless.[207]

> "Lacking ideal cleaning facilities, guns which burn black powder will last a very short time; black powder is a highly corrosive compound ... if allowed to sit for even one night, the fouling inside the barrel will have combined with moisture to form a sludge ... if not completely removed, the residue will corrode the bore very quickly ... it is virtually impossible to fire the weapon until it is cleaned. The dry caked fouling, now a thick sludge ... moistens the powder, plugs up the touch hole, lubricates the flint and frizzen so they refuse to spark and prevents the seating of the ball."[208]

For tribal warriors accustomed to traditional weapons of stone, bone and wood, which were durable and readily obtainable, keeping a prized musket operational at home or in the field was a formidable challenge. The toa found that the metal components of the musket (the barrel and firelock) rusted easily, particularly when exposed to the salt air of the coastal regions. While the English Navy's sea service muskets were painted black against corrosion, the barrels of army firearms were chemically etched against corrosion, the barrels of the cheap trade guns were unprotected.[209] Yet throughout the 1820's the marauding Ngapuhi musket taua were easily identified at a distance by their enemies, from the glitter of their highly polished musket barrels and the burnished brass of their musket stocks.[210]

The quality of maintenance improved dramatically with the large scale importation of guns into the Bay of Islands after 1818. European visitors observed with interest the constant cleaning and polishing necessary to maintain the guns in working order.

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[207] Wilkinson, F. p 78.

[208] Given, B. J. *A Pernicious Thing Gun Trading and Native Warfare in the Contact Period.* (Ottawa 1994) pp 89 - 91.

[209] Held, R. p 132.

[210] Ironside, S. Journal Cited in Chambers, W. A. *Samuel Ironside in New Zealand 1839-1858.* (Auckland 1982) p 131.

Additionally the iconography of the period reveals numerous village scenes where the warriors are engaged in the maintenance process.[211] Constant maintenance could itself however, create new problems for the toa. The itinerant artist Augustus Earle, visiting the Bay and Hokianga regions in 1827 noted: "... They are so fond of cleaning, scrubbing and taking them to pieces that in a short time, the locks become loose, the screws are injured and they are soon rendered entirely useless, to the great surprise and dismay of their owners."[212]

Storage

Some early visitors believed that the Maori stored their rakau weapons in centralised armouries. Crozet described an armoury he saw in the Bay of Islands in 1772 and the Ngati Rehia chief Te Pahi was known to keep his weapons store and treasures on Te Puna Island during the first decade of the nineteenth Century.[213] Samuel Marsden at Okuratope pa in the Bay of Islands in 1815, saw "storehouses for spears and provisions, about thirty feet long and twenty feet wide and well built."[214]

The armouries observed by Crozet and Marsden housed the warriors surplus weapons. Placing personal weapons in a central armoury when working outside fortifications was to invite disaster, as enemy attacks were usually swift and unheralded. In the musket era, the toa stored their muskets and munitions in their own whares for ready access in the event of emergencies. Augustus Earle recorded the reaction of Kororareka Ngapuhi when Hongi visited their territory, crossing the bay accompanied by several large war canoes "... On a sudden, a great commotion took place amongst them. Each left his work and ran to his hut and immediately returned armed both with musket and cartouche box; apparently all the arms in the village were mustered, and all seemed ready for immediate use."[215] At the Hokianga, Earle and his companions observed a similar arrangement during their visit to the hill top pa, Whiria, near Pakanae.

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[211] Earle, A. pp 254 - 250, 251.
[212] Earle, A. pp 92, 93.
[213] Ballara, A. "Te Pahi" *The Dictionary of New Zealand Biography* . pp 475, 476.
[214] Marsden, S. p 99.
[215] Earle, A. p 86.

"Nearly the whole of the inhabitants were out working in the fields. We entered several of their habitations and found all their property exposed and unguarded. Even their muskets and powder which they prized above everything were open to inspection, so little idea of robbery have they among themselves."[216]

The humid conditions under which the muskets and powder were stored did little to enhance their effectiveness and longevity. Cruise suggested in his journal in 1820 that one of the major obstacles in keeping muskets serviceable lay "in the dampness of their houses."[217]

Leading chiefs promoting expeditions of war, accumulated guns, powder and ammunition, often over several years, before distributing these among supporters and allies at the pre-campaign musterings. These armaments were stored in purpose-built armouries with the gunpowder stored in metal cauldrons. Dumont d'Urville visiting the Bay of Islands in 1824, when Hongi's power and armaments were unrivalled among Ngapuhi recalled. "Indeed Toui and Taiwhanga often told me that Chongui's [Hongi's] arms supply was kept at Waimate. His principal plantations of sweet potatoes and potatoes were also there."[218] In 1827, Augustus Earle described the munitions store on Motiti Island in the Hokianga River. Motiti lay on the path taken by Hokianga taua en route to the Bay of Islands to join the great predatory expeditions. "It was a curious and interesting spot being a native pa and depot and was entirely covered with storehouses for provisions and ammunition." Additionally, guns shared collectively by the hapu were stored in well ventilated, purpose built structures.[219] The trader, Joel Polack at Waipoa on the Hokianga in 1831, describes these storehouses or powakas (carved huts raised on poles). "In these powakas (literally boxes) are deposited all of the little treasures of the tribe, consisting of elegant mats and native garments, fowling pieces, esteemed European implements, trinkets and powder and other articles of public utility."[220]

On campaign, temporary overnight shelters were erected to shield the warriors and their guns and munitions from the elements.[221] When billeted by friendly tribes

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[216] Earle, A. p 62.
[217] Cruise, R. A. p 282.
[218] d'Urville, D. Cited in Legge, C. p 326.
[219] Earle, A. p 66.
[220] Polack, J. Vol 1, p 91.
[221] Polack, J. Vol 2, p 29.

warrior forces stored their muskets in long sheds or shelters that were guarded. Maning describing the accommodation arrangements for a taua of 1000 Rawawa warriors by his Hokianga tribe in 1833 recalled: "I perceived ... some forty men sleeping in the shed, these fellows had not removed their cartridge boxes either, and all their companions arms were carefully ranged behind them in a row, six or seven deep against the back wall of the shed."[222]

Individual Initiatives

In the period between the arrival of the missionaries in 1814 and the explosive increase in firearms in the Bay region after 1818, flintlock guns were found exclusively in the possession of leading chiefs and toa. In their role as travelling envoys and as principal barterers aboard visiting ships, several northern chiefs appear to have acquired a thorough understanding of basic mechanical repair. The problems associated in maintaining guns, coupled with the irregular supply of parts to repair or replace firelocks generated by shipping in this early period also compelled the chiefs to develop a variety of basic gunsmithing skills.

Defective nineteenth century trade muskets generally evidenced five principal faults for which the toa attempted a variety of local remedies. These faults were rusty locks and barrels, stocks made from pieces of wood glued together, loose screws and lost screws, firelocks with broken cocks and holes or cracks in the barrels.[223]

John Nicholas, Marsden's companion during the latter's first visit to New Zealand in 1814, was impressed by the 'accuracy and ingenuity' of the Ngaitawake war chief Hongi Hika, in making and fitting a musket stock. Nicholas recorded that "Shungi was bent exclusively on mechanics, for which he shewed an evident predilection, and gave some extraordinary proofs of his skill and ingenuity."[224] Major Richard Cruise and his fellow naval officers from *HMS Dromedary,* at Waikare in 1820 were similarly struck by the skill displayed by the chief Te Toru in stocking a musket: "It was done with much ingenuity. The place for the Barrel had been

[222] Maning, F. E. p 58.
[223] Kea, R. A. Firearms and Warfare On The Gold and Slave Coast from the Sixteenth to the Nineteenth Centuries *Journal of African History.* Vol 12 1971 pp 185 - 213.
[224] Nicholas, J. L. p 26.

hollowed out by fire, and the excavation for the lock, through made with an old knife and wretched chisel were singularly accurate."[225]

As muskets were handmade weapons, the Maori were able to adapt their considerable woodcarving skills to repair or replace defective woodwork. Indeed, the proficiency of Ngapuhi in stocking muskets was reported to Commissioner Bigges in New South Wales during his 1823 inquiry into the state of New Zealand.[226]

Repairing and replacing the metal components of a musket firelock presented a more formidable challenge. Cruise noted that while the nine Ngapuhi accompanying Samuel Marsden from Sydney to the Bay of Islands aboard *HMS Dromedary* in 1820 spent most of their days "burnishing and cleaning their muskets",[227] they depended on the ship's armourer for mechanical repairs. The wish to reduce this dependency was evident on the part of the chief, Te Toru, who frequently went on board the *Dromedary* at the Bay where:

> "He took station either at the carpenters or armourers bench, where he watched with unremitting attention whatever was going on; and he showed remarkable quickness and sagacity in learning everything mechanical that came under his observation."[228]

Assembling New Firelocks From Old Guns

With no knowledge of factory processes and lacking specialist metal workers the common toa were compelled to find their own solutions to the problem of mechanical repair. The warriors effected their own basic gun repairs by swapping parts from defective muskets. Dumont d'Urville states in 1824 that warriors in the Bay of Islands were seeking the valuable tupara or double barrelled gun only after they had first acquired three muskets.[229] There were no major changes in small arms flintlock technology during the 1820's and early 1830's and warriors could confidently accumulate spare muskets without them becoming obsolete. Warriors were known to

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[225] Cruise, R. A. pp 130, 131.
[226] Dr Fairfowls evidence to Commissioner Bigges Inquiry May 1821. McNab, R. Vol 1, pp 551, 552.
[227] Cruise, R. A. p 11.
[228] Cruise, R. A. pp 130, 131.
[229] d'Urville, D. Cited in Legge, C. p 257.

accumulate up to ten guns and chiefs up to fifteen better quality weapons. Favoured weapons were named, carved and revered for they were associated with the deaths of enemy chiefs and tribesmen.

Flintlock guns were weapons of relatively simple construction. It was not difficult for toa to reconstruct a gun from old parts, particularly from the supply of identical guns available in a trade dominated by English weapons. The standard firelock of the period consisted of eight component parts attached to the mainplate and woodwork by seven screws.[230] Several of these components were susceptible to damage in the field. The similarity between the firelocks of English manufacture allowed some lost or damaged screws and components to be replaced from older or unserviceable muskets, while most remaining components could be interchanged after modification.[231] When expedient, problems could be overcome by simply fitting an entire firelock to an old gun. The Reverend Henry Williams 1828 journey to the Hokianga was delayed some six hours at Waimate by the chief Rewa "talking and fitting a lock to a gun."[232]

While a number of the dangerous cheap trade guns in the early period soon became unserviceable, they were still regarded as important in the estimation of an enemy's strength for such muskets had the potential to be repaired.[233] They were therefore retained rather than scrapped. In 1814 Marsden and Nicholas observed 'six or seven' muskets in the possession of Whangaroa Maori, plundered from the *Boyd* in 1809.[234] The ships' surgeon, Doctor Fairfowl visiting Whangaroa aboard *HMS Dromedary* in 1820 noted that the warriors had five muskets, three of which were unserviceable.[235] Given that no ships visited Whangaroa between 1809 and 1820 and the absence of inter-tribal gun trading in this period, there is every reason to suppose that these were the same muskets, now eleven years old; an achievement well possible with careful loading and thorough and regular cleaning, for without such care, a muzzle loading gun would deteriorate rapidly and could not be expected to last longer than three years.[236]

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[230] Wilkinson, F. p 32.
[231] Wilkinson, H. p 37.
[232] Williams, H. p 112.
[233] Cruise, R. A. p 282.
[234] Nicholas, J. L. pp 128, 129.
[235] McNab, R. Vol 1, p 551.
[236] Given, B. J. pp 89 - 91.

Maori Blacksmiths

The missionary, William Hall, recorded in 1820 that at the Bay of Islands "two natives amongst us who are taught the blacksmiths art to a certain degree."[237] At this time there were three blacksmiths shops operating at the Rangihou mission settlement.[238] Cruise reports in the same year that the missionaries had established a Maori blacksmith in a shop with his own tools.[239] The presence of European and Maori blacksmiths at Rangihou were hardly a panacea for Ngapuhi's problems with unserviceable firearms. Marsden consistently and unsuccessfully opposed the involvement of the missionary blacksmiths in gunsmithing, a policy he outlined to an assembly of Ngapuhi chiefs soon after his arrival in New Zealand. "I further told them the smith should make them axes or hoes, or any other tools they might stand in need of, but he was on no account to repair pistols or muskets or make any warlike instruments, not even for the greatest chief upon the island."[240]

There is no contemporary evidence to suggest that the Maori and European blacksmiths at Rangihoua manufactured their own flintlock guns though they appear to have been able to repair defective firearms. Dumont d'Urville in 1824 observed that the mission workers were the only ones who knew how to repair both Hongi Hika's guns and his warriors.[241]

The absence of indigenous gunmaking in New Zealand contrasts with the appearance of native gunmakers among tribal societies in Asia and North Africa. In evaluating this phenomenon, lack of technical skills and metalworking equipment were not the only factors of importance. Competent nineteenth century blacksmiths could easily forge and modify the screws and components for a firelock given the necessary equipment. Indeed master blacksmiths were able to construct complete flintlock guns from "a length of timber and a plug of pig iron."

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[237] Correspondence of William Hall to the Church Missionary Society *Missionary Register 1820.*
[238] Missionary Register 1820.
[239] Cruise, R. A. pp 55, 56.
[240] Marsden, S. p 123.
[241] Dumont d'Urville. *Voyage Pittoresque Autor Dumonde.* (Paris 1835) Vol 2, p 338.

The development of gunmaking and gunpowder making among Asian and African tribes-people during the eighteenth and nineteenth century was a response to uncertain supplies of cheap imports. The absence of an indigenous gunmaking industry in New Zealand was more an indication of the ready availability of cheap imported armaments than the absence of technical skill. There were no restrictions or embargoes on the New Zealand gun trade and the quantities of armaments sold to Maori escalated rather than declined during the 1820's and early 1830's.

The Maori smiths at Rangihou were trained and equipped to make simple agricultural implements for Maori though these were also used as weapons of war. Complex repairs to Maori firearms continued to require the attentions of experienced European gunsmiths. Ultimately the strength of traditional hapu obligations meant that the missionary's experiment in creating a specialist role for Maori blacksmiths was doomed to failure. Of the Maori blacksmith and his shop at Rangihou, Cruise wrote: "At length a party of his tribe came to him and told him they were going on a fighting expedition, and he must accompany them. The shop was immediately burned, the tools thrown on the beach and the blacksmith disappeared."[242]

The story told to Cruise was undoubtedly exaggerated. The Maori blacksmith was obliged by custom to join his tribe on their military expedition but the notion of discarding precious metalworking tools at a time when all metal was highly prized is absurd. Preparing for their campaign against Ngati Paoa at Tamaki, and Ngati Maru at Thames, in 1821, the missionary Frances Hall observed Ngapuhi warriors casting musket balls and removing metal working tools to maintain their guns in the field. "The Natives have been casting Balls all day in Mr Kemp's (blacksmiths) shop. They come in when they please, and do what they please and take away what they please."[243] James Kemp the missionary blacksmith, believed "the object in letting us live amongst them, is to get all they can from us, self interest is the motive by which they are attached."[244]

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[242] Cruise, R. A. pp 55, 56.

[243] Thomas Hall to Samuel Marsden. Correspondence 20th October 1961 cited in Binney, J. *The Legacy of Guilt, a life of Thomas Kendall.* (Oxford, 1968) p 211.

[244] James Kemp to Samuel Marsden Ms Correspondence. 31 December 1824. Auckland Public Library.

Further Solutions

Gunsmithing skills acquired by individual chiefs and warriors over many years were insufficient to address the maintenance needs of Ngapuhi. While displaying great skill and ingenuity in repairing guns, the musket chiefs Hongi Hika, Rewa and Te Toru were not prepared to become armourers for their hapu warriors. The accounts of their repair work suggest rather that these chiefs reserved their skills for their own growing arsenals for which they were eventually forced to enlarge their armouries.

Augustus Earle noted in 1827 that the arrival of independent European blacksmiths at Kororareka aroused such curiosity in blacksmithing that unpaid Maori enthusiasts undertook the most difficult and dirty work for the sole purpose of observing the tradesmen.[245]

In the absence of their own blacksmiths or sympathetic ships armourers, other hapu were compelled to address the problem of repair by waylaying any European in the area. Earle in 1827 noted the number of warriors: "... who are constantly pestering the Europeans by bringing them sick muskets (as they call them) to look at and put to rights, and are quite surprised that we cannot 'make them well again.' They cannot be made to comprehend that every white man does not know how to make a musket or at least repair it."[246]

On occasion this assumption by Maori could be used to advantage. The Kawhia based flax trader, St John, during the early 1830's shipped his defective muskets to Sydney for repair in secret, thereby maintaining his mana among Maori in the region.[247] It is more difficult to determine the role played by Pakeha Maori who accompanied many of the great musket taua, in the process servicing Maori weapons. Most fighting Pakeha Maori remain shadowy figures. Long accustomed to firearms their contribution to Maori knowledge and skills in maintenance and basic repair procedures may have been invaluable. Their ability or preparedness to repair complex faults in Maori muskets at home or in the field is less certain.

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[245] Earle. A. p 79.
[246] Earle, A. pp 92, 93.
[247] St John, L. C. pp 37, 38.

As the main agents in the acquisition and distribution of firearms among their hapu, the chiefs were concerned that their warriors, in their new role as musketeers, would have serviceable weapons for the great campaigns. Hongi, the war chief of Ngaitawake, the best armed hapu in the Bay after 1821, was constantly frustrated by Marsden in his efforts to obtain his own European armourer to maintain his tribal arsenal. The French naval officer, Louis Duperrey visiting the Bay of Islands aboard *La Coquille* in 1824, believed that: "He (Hongi) only tolerated these foreigners because of the services they could render in the mechanical arts; for a long time he had particularly expressed to Mr Marsden his wish to have an armourer to repair his muskets and keep them in good condition ..."[248]

When the French naval corvette landed the missionary George Clarke, a former gunsmith, and his family at the Bay, Hongi was angered by Clarke's refusal to take up his former trade. Duperrey reports that Hongi told Clarke on his arrival: "A good workman was what I wanted, not yet another priest; I have too many of these already."[249] Hongi's repeated requests for a trained technician to service his guns indicates that the limited capacity of Maori to effect complex repairs was recognised by the musket chiefs and the ideal solution known; but the solution remained ideal, for only on rare occasions were technically qualified Europeans available to assist the warriors.

By 1823 most toa in the Bay of Islands and Hokianga were armed with muskets. Though the toa continued to rely on the practice of dismantling older weapons to obtain parts and the expertise of European armourers to effect major repairs, the general standard of maintenance observed was high. Augustus Earle at the Hokianga in 1827 was impressed by the numbers of Brown Bess or Tower military muskets in the hands of the warriors and the way these guns were protected after firing a salute to his vessel. "Those who had fired their pieces from the canoes, carefully cleaned the pans, covered the dry locks over with a piece of dry rag and put them in a secure place in their canoes."[250]

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[248] Duperrey, L. Cited in Sharp, A. p 36.
[249] Duperrey, L. Cited in Sharp, A. p 36.
[250] Earle, A. pp 92, 93.

Servicing Guns in the Field

The great Ngapuhi musket expeditions of 1818, heralded the shift in Maori warfare away from sporadic seasonal raiding by small taua to long distance campaigns up to eighteen months duration, by musket taua numbering between 800 and 3000 warriors. Only by returning to a secure operational base, with access to well equipped ships armourers and certain supplies of replacement parts, replacement muskets, lead and powder could Ngapuhi maintain their pattern of predatory warfare.[251]

In the field, particularly in the harsh operating environments encountered during the extended winter campaigns, the toa appear to have enjoyed considerable success in keeping their flintlock guns operational. The two Ngapuhi taua that campaigned overland to Taranaki and the Cooks Strait region between 1818 and 1821 carried between three and thirty prized muskets. Although fired often to panic the enemy at the commencement of battle, these guns appear to have survived sufficiently intact for some to be gifted to Te Rauparaha and Ngati Toa, the allies of Ngapuhi.[252]

Contemporary accounts also reveal that some warrior forces were able to modify their weapons in the field to enhance the performance of the flintlocks. A common problem with cheap trade guns and poor quality trade powder, was the numbers of misfires that occurred during the act of firing the piece. A warrior armed with a Brown Bess could reasonably expect one flash in the pan every seven to ten shots.[253] With cheap trade muskets and flints and powder of dubious quality, the percentage of misfires rose dramatically and in wet and windy conditions, the flintlocks might not fire at all.[254] William White records how the toa warriors of one Ngati Raukawa hapu migrating south through enemy territory modified their muskets to increase their rate of fire.

> "In the year 1828 Te-ahu-karamu ... and his company of travellers arrived at Kapiti. This company of travellers was called Te-kariri-tahi (the one cartridge). Now, the origin of this name, "The one cartridge", is this : As they had so little ammunition they had not sufficient powder to make many cartridges. If powder was put into the muzzle of a flintgun, the powder would go right out into the pan of the gun, because the touch-hole of the

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[251] Smith, S. P. p126.
[252] Smith, S. P. pp 98 - 217.
[253] Held, R. p 114.
[254] Held, R. p 95.

gun had been enlarged, as the Maori invariably made the touch-holes of their guns larger than they originally were so that when they fought standing near to each other they could load in a hurry and in a hurry fire at their enemy."[255]

Maori problems of servicing and replacing damaged muskets in the field were increasingly alleviated during the 1830's by opportunist European traders who arrived before battles or during sieges to supply the combatants on both sides with guns and ammunition. At the siege of Otumoetai Pa, Tauranga in 1832, the besieging Ngapuhi under Titore were supplied with armaments from the trader, Hans Tapsell, while the traders Montefiore, Scott, N. Nicholas and Farrar supplied the Ngai te Rangi defenders.[256] At the siege of Nga Motu Pa in Taranaki during the same year, European whalers fighting alongside the besieged Te Atiawa were astounded when warriors from the besieging Waikato forces were admitted to the pa to barter their surplus muskets and ammunition.[257]

At Tauranga during the height of the New Zealand flax boom, the missionary Henry Williams noted in 1831 the extent of surplus muskets among Ngai te Rangi: "Each boy has two or three guns and men ten."[258] Such surpluses were possible when a tribe gathered firearms for purely defensive purposes, Henry Williams observing "They are an interesting people. I have not known of their going against any other tribes since possessing the means of attack but to act on the defensive."[259] Ngapuhi warriors were unable to accumulate similar surpluses for their guns had a higher rate of attrition, being constantly tested during predatory expeditions to the south and during interfactional fighting between hapu in the north. Additionally, gunfire was employed to enhance a wider variety of traditional customs and rituals in the Bay and Hokianga regions.

In 1832 a party of Maori were seen returning from Sydney on *HMS Alligator* with a collection of rusty guns to restore[260] but dependence by Maori on European gunsmiths to effect complex repairs to defective flintlock guns continued throughout the 1830's. Hongi Hika's famous tupara, Patu Iwi (killer of tribes) was last sighted by

[255] White, W. Vol 6, p 34.
[256] Williams, H. p239.
[257] Polack. Vol 2, pp 43, 44.
[258] Williams, H. p 219.
[259] Williams, H. p 220.
[260] Marshall, W. B. p 24.

the English traveller, Francis Hodgkin while visiting Whangaroa Harbour on December 30 1833. Hongi had received this gun from King George the Fourth when visiting London in 1820 and had employed this weapon during intertribal battles until his death in 1828.

> "Several natives visited the ship (the *Buffalo*), including the son of a celebrated warrior called Shungee. He brought on board a double-barrelled fowling piece for our armourer to repair. It had on the stock a piece of plate with this description - "Given by His Majesty King George the Fourth to Shungee, King of Napooe, New Zealand." The piece was in poor condition having been tabooed with the remains of Shungi, who had been dead for five or six years."[261]

The circumstantial evidence indicates that Maori gunsmithing skills during the intertribal Musket Wars were principally confined to reconstructing muskets by restocking weapons, replacing defective firelocks with new mechanisms and recycling parts from older and unserviceable muskets. Throughout the period, the remote and harsh operating environment, uncertain supplies of parts and the widespread popularity of the cheap trade gun remained at the root of the Maori repair and maintenance problem.

It was difficult for tribal warriors to employ guns effectively against their enemies given the inadequacy of obsolete military weapons and the crude trade guns they acquired. It was especially difficult for people with a tradition of simple technology to make effective use of the antiquated and shoddy cast offs of a relatively sophisticated technological society.

That the cheap trade guns and worn out military muskets continued to flash and thunder in campaigns throughout the Musket Wars indicate their value to the tribe and the great care lavished on them by individual toa, determined to extend the operational life of their flintlock guns far beyond that intended by their manufacturers.

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[261] Sale, W. F. p 84.

Chapter Five

THE MUSKET ARMIES

A remarkable feature of the New Zealand Musket Wars was the evolution of large predatory armies, several numbering between 2000 and 3000 warriors. The composition and operations of these armies have remained something of a mystery yet some of the largest military forces to campaign in New Zealand during the wars of the nineteenth century were the great taua or expeditions of war. These formidable battle groups were assembled by many tribes and from many tribes but particularly by Ngapuhi, Waikato, Ngati Haua and Ngati Toa, who gained early and decisive leads in the intertribal arms race.

The creation of the new musket armies compelled Maori generals, like their counterparts in the European armies, to address the problems associated with recruiting, provisioning and transporting battle groups of unprecedented size. That these armies were able to campaign over longer distances and for longer periods than previously recorded expeditions, was a singular achievement. Additionally, the musket generals were compelled to develop formula to co-ordinate in battle, the tactics of composite armies founded on related and unrelated contingents armed with guns, conventional rakau-Maori weapons and European edged weapons of iron and steel.

The logistical and tactical problems confronting the charismatic chiefs arose not only from the size of the taua themselves, but from the increasing reliance of these forces upon the firepower of imported European firearms and the variety of accoutrements necessary to maintain a nineteenth century flintlock army in the field.

The Rise of the Ngapuhi Musket Armies

The predatory musket raids conducted by Ngapuhi from the Bay of Islands in the period 1817 - 1820 were competing expeditions of single hapu and larger composite expeditions of eight hundred to twelve hundred warriors under the chiefs Korokoro, Te Morenga and Hongi Hika from the Bay of Islands and Patuone and Tamati Waka Nene from the Hokianga.

Visiting the Bay of Islands for ten months aboard *HMS Dromedary* in 1820, the infantry officer Richard Cruise described the distinctive nature of Ngapuhi predatory expeditions preceding the return of Hongi Hika from London in 1821.

> "It is singular to what a distance they go from home and what a length of time they remain absent on their predatory excursions. Pomare had sailed upon one of them a month before we arrived nor was it known where he was at the time of our departure.... Though his tribe seems to have gone alone in this instance, the expeditions are in general composed of the united strength of three or four chiefs. Each chief is absolute in his tribe and each tribe independent of its neighbour."[262]

Early Ngapuhi expeditions relied upon the terror inspired by the small number of flintlock guns in their possession to break the ranks of enemy tribesmen armed with conventional rakau-Maori weapons. Cruise witnessed the departure of one hapu of 120 warriors carrying just ten muskets "bound for the Thames under Tetero in two canoes"[263] and describes a confrontation between Rarawa under Poro and a Whangaroa force under Te Pehi. The Rarawa force of 200 possessed 12 muskets while the Whangaroa people having half their numbers carried six muskets.[264] The chief Te Morenga, in 1820 raided the Tauranga region with a taua 800 strong armed with 35 muskets, while the name of Korokora whose tribe possessed 50 muskets, was said to be "heard with terror 200 miles from the Bay of Islands."[265]

Fierce interhapu rivalry produced a spate of competing expeditions in this period. Dr Fairfowl from the *Dromedary,* giving evidence at Commissioner Bigges Inquiry in 1821 reported that there were always "one or two parties" from the Bay of Islands away on warlike expeditions and that when the *Dromedary* arrived in the Bay during February 1820 'there were not less than seven expeditions absent."[266]

In their endeavours to obtain guns to conduct their own southern raids, the Bay of Islands and Hokianga chiefs showed themselves capable of mobilising all the human and material power of their hapu. The Northern Chiefs participating in the fierce inter-tribal arms race and competitive raiding after 1816 became unwittingly,

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[262] Cruise, R. A. p 281.
[263] Cruise, R. A. pp 146 - 147.
[264] Williams, H. pp 265, 266.
[265] Cruise, R. A. p 282.
[266] McNab, R. Vol 1, pp 551, 552.

part of a northern war economy that only lacked central direction to become a force of national magnitude. The return of Hongi Hika from London and Sydney in 1821 with an arsenal of 300 muskets and assorted cutting weapons was the catalyst that produced the first modern army in New Zealand and carnage on an unprecedented scale.

In September 1821, the Rev. John Butler, witnessing the departure of the first great Ngapuhi musket army under Hongi Hika recognised that Maori warfare in New Zealand had entered a new era. Embarking on a four month campaign against Ngati Paoa at Tamaki and Ngati Mana at Thames, the Bay of Islands Ngapuhi contingents alone numbered 2000 warriors armed with 1000 guns. Butler wrote:

> "There has never been anything like such an arrangement in New Zealand before. Tuai, Titore and all their friends are in the general onset. Shungee and Waikato have returned from England with a great quantity of guns, swords, powder, balls, daggers etc etc etc and thus they are fully armed to murder, kill and destroy without reserve, which is the highest pitch of glory to a savage of New Zealand."[267]

European observers watching the great taua prepare for war began increasingly to refer to these large forces as armies as they adopted tactics, dress, arms and accoutrements normally associated with European musket armies.[268]

Mobilisation

Musket chiefs promoting grand expeditions of war were responsible for entertaining, and feasting the great number of potential allies who mustered in their districts. Samuel Marsden in 1820, attended a mustering of 3000 Ngapuhi at the Bay of Islands, preceding their campaign against the Ngati Whatua people at the Kaipara. "Here we met the largest assemblage of natives I have ever seen. There were some of the heads of tribes with their fighting men from Shokeehanga (Hokianga) on the west side of New Zealand to Bream Head on the east ... There was great feasting in their way: some hundreds of baskets of sweet and common potatoes with fish were eaten."[269]

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[267] Butler, J. p 172.

[268] Davis, R. Journal 20th March 1828. Cited in Keene, F. p 44. Polack, J. Vol 2, p 73. Thompson, S. p 125.

Similarly, at Matamata in 1837, the missionary, A. N. Brown witnessed the mustering feast the chief Te Waharoa and his Ngati Haua people gave to their Ngai te Rangi allies before commencing their campaign against the Arawa tribes. "They have collected for the feast, six large albatrosses, nineteen calabashes of shark oil, several tons of fish, principally young sharks which are esteemed by the natives as a delicacy, upward of 20,000 dried eels, a great quantity of hogs, and baskets of potatoes without number."[270]

It was clearly the introduced solanum or white potato that provided the staple for the grand mustering feasts observed by Marsden and Brown. Unlike the kumara, white potatoes were a highly productive, non-tapu crop that could be planted, cultivated, and harvested by women and slaves, without the involvement of men. The warriors were increasingly freed to participate in predatory musket taua that campaigned far from home, and outside the summer months of the traditional campaign season.

The rise of the new musket armies, increased slave taking and the widespread cultivation of white potato crops are inextricably linked. Large scale potato production by slaves produced a valuable commodity for the musket trade and an easily transported and durable provision for the musket armies. It was the white potato, then that made possible, large accumulations of muskets and munitions, but more significantly, larger and more frequent musters, and larger and more frequent campaigns by musket armies.[271]

Accumulating Arms and Munitions

Musket chiefs promoting large predatory campaigns founded on flintlock guns were obliged to mobilise the economic resources and the labour of their people on a much larger scale than in the past; for the musket armies on campaign, required a variety of expensive miscellaneous goods that were seen to include, casks of gunpowder, casks of prepared cartridges, spare flints, tools for their guns, spare parts for the gun locks, spare gunlocks, bullet moulds, casks of lead bullets, sheets of lead

[269] Marsden, S. p 66.
[270] Brown, A. N. *Missionary Register,* 1838. p 239.
[271] Shoniel, W. *The Maori and the Economic Frontier* PHD Thesis, Univ. Tennessee 1983. p 77.

for bullet making and additional muskets. (Chiefs might take up to fifteen personal guns on campaign, with slaves to carry them.[272])

Tribes entering into contractual arrangements with Royal Navy and civilian vessels to supply kauri spars, mobilised the labour of hundreds of men. In 1820 Hongi Hika's great rival Pomare, exchanged kauri logs with the Captain of the ship *Harmony* for a large number of tupara (doubled-barrelled guns[273]). Hongi Hika's successor Titore, exchanged kauri spars with Captain Salder of *HMS Buffalo* in 1834 for a huge consignment of arms that included: "20 double barrelled guns, 10 fowling pieces and 200 muskets complete with bayonets and all accoutrements, as well as much other equipment including 5000 ball cartridges."[274]

The Bay of Islands trader, Joel Polack, claimed that the *Buffalo's* 'other equipment' included a number of lethal seven barrelled volley guns.[275] Polack's claim is probably correct as on two previous occasions, Captain Sadler of the *Buffalo* had requested that the British Admiralty provide him with Congreve war rockets as articles of trade with the Maori. The Admiralty refused his requests.[276]

The irregular supply of arms and powder from the shipping saw individual initiatives with many North and South Island chiefs travelling to Sydney for firearms while Hongi Hika of Ngapuhi in 1820 and Te Pehi Kupe of Ngati Toa in 1828 journeyed to London to obtain guns and munitions for their campaigns of conquest.[277]

Leading chiefs were also compelled to stockpile these arms and munitions in some instances over many years before commencing their campaigns. The artist Augustus Earle in 1827 described a munitions store belonging to Hokianga Ngapuhi on Motiti Island as '... a native store and depot ... entirely covered with storehouses for munitions and provisions',[278] while Whetoi or Pomare II at Otuihu in 1837 was known to keep four and a half tons of gunpowder stored in his meeting house.[279] Surplus

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[272] Marsden, S. p 390.
[273] Earle, A. p 66.
[274] Montifiore, J. Evidence before British Parliamentary Select Committee on Aborigines. *British Parliamentary Papers* 1837 - 40. p 185.
[275] Polack, J. *Manners and Customs of the New Zealanders* Vol 2 (London 1840) p 45.
[276] Sexton, R. p 33.
[277] Craik, G. L. pp 317 - 319.
[278] Earle, A. p 66.
[279] Markham, E. p 81.

arms and munitions were not stored for subsequent expeditions but were dispersed among the gathered hapu in lavish gift giving ceremonies at the musterings; Polack describing one chief who gifted to a relative, muskets, powder and red military blankets to the value of 200 pounds.[280]

The rise of the new musket armies then, are also closely interrelated with the long term accumulation of tribal arsenals. During the 1810's and 1820's these arsenals enabled their possessors to destroy the conventionally armed tribes that gathered outside their principal iwi fortification to give battle. Large armies were also necessary to surround and besiege some of these great fortresses. Before the rise of the great musket taua, these strongholds had generally been bypassed by earlier musket expeditions.

Recruitment

The journals of several early visitors to New Zealand and much of the secondary literature, perpetuates the myth that Ngapuhi, with their early monopoly on the gun trade, embarked on their destructive campaigns with great enthusiasm.[281] The letters and journals of those who travelled and lived among northern Maori reveal that contrary to the weight of opinion, recruiting hapu for the musket armies was always a difficult as well as expensive business.

As the great taua began to assemble, they became in the hands of the leading chiefs, coercive instruments of considerable power, drawing into their ranks both willing and unwilling hapu. Marsden at the grand Bay of Islands mustering in 1820 describes how the leading Ngapuhi chiefs were operating an ad hoc conscription system, for they had met to determine the number of men each hapu would contribute to the campaign against Ngati Whatua. Marsden noted: "The other chiefs when they cannot prevail with their neighbouring friends to join them in their expeditions, shame them into compliance by accusing them of cowardice."[282]

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[280] Polack, J. pp 75 - 80.
[281] Cruise. pp 17 - 23. Earle. pp 54 - 57.
[282] Marsden, S. p 243.

Fear of retribution was a further means by which war leaders compelled participation. James Shepherd at the Bay of Islands, says that when Hongi Hika's 1822 taua, 3000 strong returned from their seven month campaign against the Waikato Tribes : "They told me that they got a great name by fighting, and should they refuse to go, others would come and fight against them and plunder them of all their things."[283]

This pattern of coercion continued into the 1830's but musket armies were also assembled through a combination of diplomacy as well as coercion. Hongi Hika was only able to assemble his first musket army of 3000 warriors for his campaign against Ngati Paoa at Tamaki initially by returning from London and Sydney in 1821 with a huge consignment of guns and munitions and by securing peace among the Ngapuhi factions.[284]

Appearance and Armaments

One of the most dramatic eyewitness descriptions of an advancing musket taua is contained in Frederick Maning's book *Old New Zealand.* A fighting Pakeha-Maori who marched to battle with his tribe, Maning describes a confrontation at the Hokianga in 1833 with a Rarawa expedition, 1000 strong, returning home following their two year marauding expedition to the south.

> "The taua comes on steadily, they are formed in a solid oblong mass. The chief at the left of the column leads them on. The men are all equipped for immediate action ... Every man almost without exception is covered with tattooing ... Each man has around his middle a belt, to which is fastened two cartridge boxes, one behind and one before ... under the waist belt is thrust behind at the small of the back, the short handled tomahawk for close fighting and to finish the wounded ... Each cartridge box contains eighteen rounds and every many has a musket. Instead of the regular marching step of civilised soldiers, this mass seems to progress towards you with the creeping motion of some great reptile, at a distance and when coming down sloping ground, this effect is quite remarkable."[285]

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[283] Shepherd, J. Journal cited in Ballara, A. Warfare and Government in Ngapuhi Tribal Society MA Thesis University of Auckland 1973. p 175.

[284] Gudgeon, W. Cited in Vadya, A. P. p 28.

[285] Maning, F. E. pp 45 - 47.

Maning's 1833 taua is unmistakenly Maori in appearance and tactics but is uniformly armed and equipped in the European style. The guns referred to will mostly have been surplus military muskets of English origin known as Brown Bess, traded widely in New Zealand during the 1830's. From the circumstantial evidence however, it is possible to piece together a series of cameo glimpses revealing how the taua of the early 1820's presented a far different appearance.

The flintlock guns carried by the early musket armies were actually cheap and shoddy trade guns of 'plain iron' exported to indigenous peoples in Africa, North America and the Pacific in the hundreds of thousands by manufacturers in Birmingham and other English cities.[286] Specifically, the English trade guns took the form of single and double barrelled muskets which were known to explode on firing, unless loaded with a light grained trade powder of low strength. Observers also describe single and double barrelled fowling pieces or shotguns, blunderbusses, muskatoons, flintlock pistols and a variety of antiquated military muskets.[287]

The Ngapuhi hapu with limited access to the shipping provided the auxiliary contingents for the musket armies. These contingents engaged the enemy in hand to hand fighting during the melees and pursuits when the ranks of the foe had been broken by the close range gunfire of the musketeers. By 1821 however, the auxiliaries were seen to have largely replaced their rakau-Maori weapons of stone, bone and wood with a bizarre collection of European cutting and stabbing blades that included swords, daggers, spears, bayonets, harpoons, whaling lances, bill hooks, long and short handled tomahawks and a variety of modified agricultural implements.[288]

Caught up in the craze for European military dress that swept the north during the 1810's and 1820's, the Ngapuhi chiefs described to Marsden how they appeared on the battlefield at Tamaki in 1821 wearing the uniforms and accoutrements of British and foreign military officers.[289] The musketeers were similarly attired in red or scarlet trade blankets and it was these distinctive "military" blankets and the glitter of highly polished gun barrels by which Ngapuhi musket armies were recognised at a distance by their enemies throughout the 1820's.[290]

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[286] Blackmore, D. p 37.
[287] Cruise, R. p 282. Polack, J. p 82. Marsden, S. pp 131, 132, 359.
[288] McNab, R. Cruise, R. p 283.
[289] Marsden, S. p 356.
[290] Chambers, W.A. p 173.

Each hapu carried its own flag in the European style. Henry Williams described how flags were flown from the sterns of sixty canoes during Titore's expedition against Ngai te Rangi at Tauranga and observed that red flags were flown to show hostile intentions with white flags flown for peace.[291] In armaments, in dress and paraphernalia, the early musket taua had more in common with the colourful late mediaeval armies of the steel and powder model, than with the drab uniformity of arms and equipment that characterise Maning's 1833 taua.

The Changing Composition of the Armies

The musket armies took many guises. In composition they ranged from self sufficient fast moving overland expeditions of 1000 - 1200 warriors supported by a small commissariat to the cumbersome amphibious expeditions of Hongi Hika numbering 2000 - 3000 warriors. During the latter years of the Musket Wars as conscription became less exclusive, tribes undertaking military expeditions might include anyone who could paddle canoes, march and fight with the musket irrespective of age, sex, social status and kinship ties. Such taua came to resemble armed seasonal migrations as the tribes 'civilian' population sought to escape the pressures and shortages associated with remaining at home. Describing the return of Te Rauparaha's 1830 composite taua from their campaign against Ngaitahu in the South Island, a European eyewitness recalled:

> "The party numbered about 2,000 all told, including women and children and they had some 500 prisoners with them. Altogether there must have been sixty or seventy canoes the bow of each of which was decorated with dead men's hands and heads ... Te Rauparaha would send a party of slaves, or prisoners, to the bush to cut firewood and make a hole in the earth with a fire in it in which stones were heated. When everything was ready the chief dispatched with his tomahawk the slaves that had fetched the wood and prepared the ovens and the remainder of the slaves were required to cook the bodies of their friends and cut up the joints in baskets."[292]

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[291] Williams, H. p 231 Carleton, H. *The Life of Henry Williams Archdeacon of Waimate* (Auckland, 1846) p 77.

[292] Evison, H. C. *Te Wai Pounamu The Greenstone Island* (Christchurch, 1993) p 68.

Maori society was first and foremost a military society, and it was in the composition of the musket armies, that many of the changes sweeping tribal societies during the 1820's and 1830's were most clearly defined.

As casualties among the aggressor tribes accumulated, and these tribes acquired surplus armaments, the musket taua began to fill their ranks with boys, slaves and Europeans, people from outside the traditional warrior elite. As early as 1827 European observers had noted 'a thinning out' of the men and a predominance of women in some regions because of the wars.[293]

Richard Cruise noted that in 1820, that "Repero, Shungee's [Hongi Hika's] son, having shot a man at North Cape before he attained his fourteenth year" had "achieved a powerful ascendancy in his tribe."[294] At Tauranga in 1831, Henry Williams records that among the Ngai te Rangi "each boy has two or three guns and men ten!"[295] Boys were able to participate in predatory expeditions as the musket was a non tapu weapon, the operation of which required qualities other than physical strength and intensive training. The nineteenth century historian Thomas Gudgeon said of this period that even the most famous warriors felt that their skill and courage could avail them nothing against mere boys armed with muskets.[296]

The French naval officer Louis Duperrey, at the Bay of islands aboard the frigate *La Coquille* in 1824, reported: "the warriors generally take their slaves to war to carry their stores and prepare their food, sometimes they even give them arms to enable them to fight."[297] The influx of large numbers of slaves or taurekareka into the raider communities saw many male captives willingly fight for their captors.

Slaves taken by Ngapuhi in the Wairarapa region during their long distance campaign in 1819 were described as "very brave with great ferocity in man killing"[298] particularly when fighting against their own relatives and by 1833 their combatant role in the northern musket armies had become firmly established. Frederick Maning at the Hokianga wrote that: "the able bodied slaves are always expected to fight in the

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[293] Boultbee, J. *Journal of a Rambler* Starke, J. (Ed) (Auckland 1986) p 102.
[294] Cruise, R. p 276.
[295] Williams, H. pp 194 - 195.
[296] Gudgeon, T. *The History and Doings of the Maoris.* (Auckland 1885) p 16.
[297] Sharp, A. p 39.
[298] Smith, S. P. p 127.

quarrels of their masters to do which they are nothing loath."[299] The composition of the new musket armies therefore went counter to established military tradition but these changes were indicative of the fundamental reshaping of Maori society in a period where change was the consequence of, preparation for and participation in musket warfare.

The Commissariat

In the year 1832, Thomas Ralph, the flax agent employed by the Sydney trading house, Montifiore and Sons on the Mokau River, witnessed preparations for war against the Taranaki tribes by a composite musket taua of Ngati Maniapoto and Waikato warriors. Ralph estimated that the force congregated together amounted to nearly 4000 men.[300] The Waikato contingent under Te Wherowhero, 3000 strong and fully armed with muskets, besieged and overwhelmed the defenders of Pukerangiora Pa. Elements of this force went on to besiege Te Atiawa at Ngamotu for four weeks before lifting the siege. Te Wherowhero's great musket army finally reappeared 3000 strong at Waikato Heads on the Manukau Harbour in late 1832 to confront a powerful invading musket taua of equal size under the Ngapuhi predatory raiders Tirarau and Pukerangi.

The flax trader, St John, who marched to war with the Waikato force described how their commissariat failed after three days. The Waikato withdrawal enabled Ngapuhi to retake the initiative and to devastate the lower Waikato.[301] This incident typifies the logistical problems that plagued the musket chiefs during the 1820's and 1830's.

Most early visitors and late nineteenth century writers were of the opinion that the musket armies had no commissariat, believing that such large forces could somehow live off the land, or assuming perhaps that in the absence of written inventories, the problems of collecting, storing and transporting vast quantities of provisions and munitions by Maori must have been insurmountable. C. O. Davis, the

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[299] Maning, F. p 125.
[300] Polack, J. p 290
[301] St John, L. C. p 19.

biographer of the Ngapuhi chiefs Kawiti and Patuone wrote: "In speaking of Maori encampments, it must not be imagined, that either its defences or its commissariat were such as to call forth our admiration... The only luxury which the latter could supply was the root of the wild fern roasted and pounded."[302]

While the musket armies had no permanent supply organisation, they did have people highly experienced in this field. European observers during the 1830's noted how the musket taua of the inland tribes Waikato and Ngati Haua were accompanied by 'immense numbers of slaves'.[303] pikauing or back packing munitions and provisions while Ngapuhi and Ngati Toa armies were reprovisioned in the field by flotillas of captured canoes crewed by women, boys, slaves and reinforcements. Joel Polack observed: "When the war is prolonged and the assailants encamp themselves in themselves in the vicinity for one or two seasons, provisions are sewn, reaped and forwarded to them; upwards of 3000 large baskets of kumeras and potatoes have been exported from the north to the Army! in the south at one time."[304]

Watching one Ngapuhi hapu provision its great waka for the 1822 campaign against the Waikato people, Henry Williams at the Bay of Islands wrote: "I have been watching them with some curiosity and interest. Their canoe is sixty feet long and will take about seventy people, men women and children. For this number it is necessary to provide provisions. All this has to be stowed with the greatest care and considerable judgement. Their muskets are also in good order, folded in swaddling clothes."[305]

Poor judgement or carelessness by the commissariat could have serious consequences. Henry Williams records the consternation among Ngapuhi when a canoe laden with casks of gunpowder capsized after launching and[306] the missionary James Kemp tells of one unfortunate warrior sent home overland to the Bay of Islands to collect a sheet of lead left behind by another.[307] The missionary George Clarke was told by Maori following Hongi Hika's victory at Te Ika a ranganui in 1825 "... after a month of pursuing fleeing bands of Ngati Whatua, Ngapuhi were completely worn out

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[302] Davis, C. O. *Patuone.* (Auckland, 1876) p 36.
[303] McNab, R. p 46.
[304] Polack, J. p 73.
[305] Williams, H. p 222.
[306] Williams, H. p 210.
[307] Kemp, J. Journal 21 May 1825. Cited in Ballara, A. p 177.

for want of food ... they lived upon thistles and grass and even devoured the dead bodies of some of their friends."[308]

Composition and Tactical Difficulties

The capacity to assemble and maintain powerful musket armies in the field was not exclusive to Ngapuhi or major tribes and by the early 1830's composite musket armies assembled from many small tribal contingents became a convenient ad hoc battle group for North Island tribes. A peculiarity of the Musket Wars was the increase in "the previously unusual practice of recruiting contingents of non-kin"[309] often from considerable distances to create musket taua. During the factional fighting between Titore and Pomare II at the Bay of Islands in 1837, Marsden noted how the two chiefs were supported "... by friends and allies assembled from all parts of the Island, extending from the North Cape to the East Cape and along the eastern and western shore."[310] Martha Marsden recorded in her diary that a Ngati Kahungunu contingent from the Wairarapa took a particularly active role in the fighting.[311]

The key to the successful operations of the large composite taua was the process by which different divisions and contingents of reinforcements journeyed independently to a rendezvous near the battle zone and subsequently fought under the direction of their own factional leaders. These allies reserved the right to sit out the battle if they disagreed with the main tactical plan. En route to the battlefield, the composite taua often appeared as squabbling confederations but deep in hostile territory and isolated by distance from reinforcements, the various divisions generally exhibited a remarkable degree of cohesion.

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[308] Clarke, G. Journal 7 September 1825. Cited in Ballara, A. p 117.
[309] Ballara, A. Wellington
[310] Ramsden, E. *Marsden and the Missions.* (Sydney, 1936) p 313.
[311] Ramsden, E. p 220.

There are two notable instances where ongoing rivalries between the leading chiefs did create tensions and tactical difficulties for musket armies. William White's Maori informants said that the Ngapuhi chief Pomare, disagreed with Hongi Hika's plan to take Te Totara Pa at the Thames by treachery in 1821 and the various hapu of his faction subsequently withdrew from the battle.[312] Marsden was told by Hongi Hika that during his campaign against the Arawa people at Rotorua in 1823, the factional leaders Pomare and Te Wera Hauraki attacked Mokoia Island without waiting for Hongi's division. Their contingents came close to defeat and they were forced to fall back on Hongi's division to avoid annihilation.[313]

As with any large force, serious problems of communication did occur between divisions of the musket armies particularly as messages conveyed by word of mouth were subject to distortion and delay. In 1836 the Ngati Haua chief Te Waharoa attempted a musket ambush on a grand scale against an Arawa force. A misunderstanding with a fellow chief meant that their divisions were unable to fire upon the enemy without inflicting casualties on their own side, and consequently, many of the enemy escaped.[314]

Individual chiefs, however, demanded disciplined action from their own warriors and those of closely related hapu when in the field. Advancing taua were highly tapu and bound by custom to kill and devour all those crossing their path be they friend or foe. The Wesleyan missionaries escaping to Kerikeri after Maori sacked their station near Whangaroa Harbour in January 1827 crossed the path of a small taua from the Hokianga. The Reverend Nathaniel Turner describing the incident may have been unaware of the great danger posed to his party and the significant break with military custom that occurred with this incident. Turner described this force as:

> "... one of the most formidable in its appearance I have ever seen in New Zealand. I judged they were at least 200, all prepared in their way for action; they were in a body and as close together as they could possibly be. All were armed, and I think the greater part with muskets and bayonet. They were headed by several chiefs, one of the principal of whom was Patuone, from Hokianga, the most friendly chief to Europeans of any that I know ... The instant he saw us turn the point he turned around upon the people and commanded them to stop; and never before in New Zealand did

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[312] Smith, S. P. p 313.
[313] Marsden, S. p 389.
[314] Wilson, J. A. *The Story of Te Waharoa* (Christchurch, 1907) p 110.

I see so much authority exhibited, and that authority so promptly obeyed. Some few pushed forward a little, but he instantly pressed against them with his spear or whatever weapon he had in his hand; some others ran into the water to get past him, but he was in the water with them in a moment and having stopped the people he told us to come forward toward him which we did, and he then told us to sit down. Patuone and several other chiefs then came and rubbed noses with us, as tokens of their respect, friendship or goodwill. ... After they had conversed a little, they told us to stand nearer to the water; and the chiefs placed themselves by the side of us and ordered people to pass on the other side; and when they were gone by we proceeded, the old chief Ware-Nui continuing with us as our guard; Ngahuduhudu went with us until we had passed all the stragglers."[315]

Enemy Resistance

The terror inspired by the approach of a musket army, saw many tribes undertake a variety of measures designed to slow their progress while modifying their own fortifications for the sheer size of some musket taua meant that even minor man made obstacles could impede their progress for some time. The Ngapuhi chief, Tuai, told the French officers from the vessel *La Coquille*, how Ngati Paoa at Tamaki in 1821 blocked their access to the Panmure lagoon by driving tree trunks vertically into the riverbed. For three days the Ngapuhi fleet attempted, under a hail of missiles, to force this blockade without success.[316] During Hongi Hika's 1822 campaign, the Waikato tribes felled trees into the Awaroa stream which gave access between the Manukau Harbour and the Waikato River. Ngapuhi took it is said, two months to clear these obstructions to their fleet.[317] During the eighteen month overland expedition conducted by Hokianga Ngapuhi and their allies to the Cooks Strait region in 1818, the contingent led by Tani Te Ruru was halted by raging forest fires set by their intended victims at the Whareama River. The extent and intensity of the blaze struck fear into this force which fled to safety over the Tararua Ranges.[318]

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[315] Reverend Nathanial Turner. Cited in Sale, W. F. *Whangaroa.* (Whangaroa Book Committee Kaeo 1992) p 54.

[316] Sharp, A. (Ed) *Duperreys Visit to New Zealand in 1824.* p 65.

[317] Marsden, S. p 342.

[318] Tuhua, T. "Incidents In The History of Horehore Pa" *Journal of the Polynesian Society.* 15, 61. 1893, pp 92, 93.

The musket armies on campaign were plagued with difficulties normally associated with nineteenth century European armies for numbers were reduced by accidents, desertions, disease and guerrilla warfare. A survivor of the Ngapuhi 1819 Cooks Strait expedition told the writer S. Percy Smith how their forces were decimated when an epidemic broke out among their ranks during a cannibal feast in the Hutt Valley.[319] Opportunist tribes seeking booty and human flesh successfully ambushed Hongi Hika's extended lines of advance during his 1822 and 1823 campaigns.[320] Of the difficulties of campaigning in New Zealand conditions Marsden wrote: "The hunger, toil and hardships the New Zealanders suffer on these expeditions are very great. They are a persevering people. No privations or hardships can prevent them from pursuing any object their minds are set on."[321] These hardships are captured in images of Hongi Hika, weeping at the emaciated state of his relative Patuone, who had returned from the Cooks Strait expedition and Hongi himself sitting down with a large needle and thread to sew up the cracks in the soles of his feet on the completion of his 1823 campaign against the Arawa tribes at Rotorua.[322]

The Cost of the Great Campaigns

The process of modernising the taua or expeditions of war subjected the tribal societies to economic and social pressures comparable in magnitude to, if not greater than, those experienced in Europe with the formation of mass armies during the Napoleonic Wars. This militarisation entailed enormous costs that had been unforeseen by tribal leaders and these costs were disguised, ignored or simply tolerated by Ngapuhi. Contrary to the popular view, there were few easy victories for the musket armies and the Ngapuhi musket victories over Ngati Paoa at Tamaki in 1821, Waikato on the Waipa River in 1822 and Te Arawa on Mokoia Island, Lake Rotorua in 1823 were particularly hard fought affairs, with Ngapuhi taking heavy casualties.

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[319] Smith, S. P. p 137.
[320] Smith, S. P. p 248.
[321] Marsden, S. p 390.
[322] Marsden, S. p 390. Butler, J. p117.

The first English translation of Dumont d'Urville's work *"The New Zealanders, A Story of Ancestral Lands"*, by Carol Legge, contains descriptions of intertribal warfare by James Burns, a shipwrecked sailor who had stowed away on d'Urville's ship *La Coquille* when it left the Bay of Islands in 1824. Burns, who accompanied Ngapuhi to battle on two occasions, believed that Ngapuhi had some one hundred warriors killed in the battle at Tamaki and during the battle on Mokoia Island, Rotorua in 1823, in which he may have personally participated, one of the chiefs estimated Ngapuhi losses at three hundred while nine hundred of the enemy were slain.[323] Sinclair estimates that Ngapuhi losses during the Musket War period amounted to three thousand men.[324] James Rutherford calculated Ngapuhi casualties in this period at nineteen per cent of the Ngapuhi warrior forces.[325]

The Ngapuhi musket armies made particularly heavy demands on society but while the food resources of the hapu territory were increasingly exploited in sustained and systematic ways, these efforts were often insufficient. Preparation for campaigns was accompanied by the compulsory acquisition of food. This practice had serious consequences for those left behind. Joel Polack observed: "The taxes or imposts for carrying on a war are levied in a very rude manner. Each chief is supposed to look after his own immediate family and dependants who take the greatest part of their winter stock or dried fish and provisions leaving the slaves and inferior women to fend for themselves."[326] James Kemp at the Kerikeri Mission Station in 1834 observed long term consequences of this practice:

> "A great part of their time is taken up in laying plans how they may overcome their enemies and thus bring upon themselves and their countrymen poverty and distress. Many families about us are now in distress for want of food having nothing to eat but fern root which they dig out of the ground, and the reason is because their husbands have been out fighting for the last 18 months and have neglected to provide for themselves and their family's the necessary food."[327]

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[323] d'Urville, Dumont J.S.C. Carol Legge (Trans) p 287.

[324] Sinclair, K. p 37.

[325] Rutherford, J. Note on Maori Casualties in their tribal wars 1801-1810 Ms Department of History. University of Auckland.

[326] Polack, J. p 19.

[327] Correspondence of James Kemp of the Kerikeri Mission to the Secretary CMS, Rev. J. Pratt, July 1834. CM House London Ms, Book 3, George Grey Collection, Auckland Public Library.

The formation of the musket armies constituted a military manpower revolution in the North. Previously, a portion of the men would remain at home to ensure the safety of the civilian population. By 1820, however, "A New Zealand Army consisted of all male persons of a nation capable of bearing arms. No individual was forced to join the ranks but all were morally obliged to do so."[328] During Hongi Hika's campaign against Te Arawa in 1823 Marsden observed villages occupied by "immense numbers of women and children"[329] only as all the men had gone to war.

Predatory expeditions before the advent of musket warfare are believed to have been short term affairs conducted over the months of summer, often between the phases of planting and harvesting.[330] As Ngapuhi society geared itself to wage interseasonal warfare founded on expensive imported European technology, the north became one large armed camp and the warriors part of a two to three thousand strong standing army.

Hongi Hika assembled three great taua between 1821 and 1823, conducting long distance campaigns against four powerful tribal confederations. At the head of a composite taua two to three thousand strong, armed with betwen one and two thousand muskets, Hongi embarked on a four month campaign against the Hauraki tribes. In November 1821 Ngapuhi stormed Mokoia-Mauinaina, the principal fortification and kianga (village) of Ngati Paoa at Tamaki, killing some one thousand of their people.[331] Soon after, at Te Totara Pa near Thames, this force fell upon the Ngati Maru people, again killing in excess of one thousand inhabitants and also killing their chief Raroka.[332]

During a six month campaign against the Waikato tribes in 1822, Hongi's taua three thousand strong and fully armed with muskets stormed Matakitaki, their principal stronghold on the Waipa River. Some fifteen hundred inhabitants perished in the Ngapuhi assault and panic stricken stampede in which large numbers of 'civilians' were trampled and suffocated.[333]

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[328] Thompson, S. p 125.
[329] Marsden, S. p 378.
[330] Cruise. p 280.
[331] Tuai to Premevere Lesson. Cited in Sharp, A. *Duperreys Visit to New Zealand in 1824.* pp 64, 65.
[332] Smith, S. P. pp 192 - 199.
[333] Marsden, S. p 42.

In the year 1823, Hongi led his last great taua in an eight month campaign against the Arawa people on their fortified Island Mokoia, on Lake Rotorua. Ngapuhi twelve hundred strong, but fully armed with muskets formed the spearhead of a great composite army that overwhelmed the defenders. It is estimated that some one thousand Arawa perished during the assault and subsequent pursuit.[334]

In this period, 1821 - 1823, the taua of the northern armies became a specialised force of musketeers increasingly divorced from life at the Bay of Islands. Warriors campaigning with Hongi Hika between 1821 and 1823 were absent from the Bay for eighteen months.[335] Those supporting Pomare's expeditions were away for two years and eight months between 1820[336] and 1824. Tribal musketeers campaigning with the chief Te Wera Hauraki in 1823 never returned home, becoming mercenaries, hiring out their muskets to Ngati Kahungunu on the east coast of the North Island in return for grants of territory and the prospect of booty arising from easy victories over tribes, armed rakau-Maori.[337]

The Decline of the Musket Armies

The operations of the musket armies were accompanied by the collapse of the customary restraints and practices which had previously regulated Maori warfare with the process of peacemaking with the enemy being increasingly abandoned. The musket generals continued to seek a 'take' or just cause for their campaigns, but the sheer size of the musket taua meant that the scale of killing and destruction was out of all proportion to the original offence to tribal honour.

The musket generals went to war with European technology in pursuit of traditional Maori goals. In their pursuit of utu or blood vengeance, the tribes were motivated by the prospect of devouring the flesh of their enemies, thereby enhancing personal and tribal mana. In the process, the musket armies became too large for their purpose. They become forces of permanent disruption, killing and enslaving

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[334] Marsden, S. pp 389 - 91. Smith, S. P. pp 118 - 276.
[335] Smith, S. P. pp 118 - 276.
[336] Smith, S. P. pp 265 - 268. Cruise, R. A. p 281.
[337] Smith, S. P. pp 278 - 281.

thousands and initiating a succession of tribal hekes or migrations that changed forever many ancient territorial boundaries.

Now encamped in the territories of their enemies for two or three seasons, tribal armies turned populous regions into wastelands. Columns of smoke by day and glowing fires at night are said to have marked their progress, and collections of bones the sites of their cannibal feasts. Aboard the frigate *La Coquille* in 1824, the French naval officer Victor Lottin wrote: "Ferocious cannibals, their passing is marked by total destruction; if they take a pa, nothing remains of it but ashes, women and children are taken into slavery, men are devoured and they leave nothing but an immense desert behind them."[338]

From the mid 1830's, musket taua in excess of 1000 warriors became increasingly rare as the major tribes became fully armed with powerful cast off military muskets and ship's cannon. The principal motivation for war dissipated as the opportunities for musket taua to easily defeat tribes armed rakau-Maori ceased. Large scale intertribal battles fought in the 1830's became increasingly expensive, prolonged and inconclusive with few casualties on either side.[339] Victories in this period were the consequence of traditional tactics where surprise attack and ambush rather than numbers and great volumes of gunfire won the day.

Ngapuhi particularly resorted to the small scale competitive raiding that characterised the pre 1821 period, fielding many small predatory taua after the death of Hongi Hika in 1828. These taua sought to achieve victory through surprise and stealth. Many of these taua comprised one main hapu with a mixture of allies drawn from related hapu. These Ngapuhi expeditions were invariably overwhelmed and consumed by more powerful musket armies fielded by the southern tribes. By 1832, Ngapuhi could field a taua of 800 men only with considerable effort. The Rev. Henry Williams, accompanying one of Ngapuhis many competing expeditions in this year wrote:

> "In the afternoon, natives mustered their forces, but did not turn out more than 400 fighting men, this is termed an army. Can anything shew the poverty of the land in point of number, more than this when we consider the

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[338] Lottin, V. Journal. Cited in Sharp, A. p 58.
[339] Williams, H. pp 231 - 249.

great efforts which have been made to raise this expedition.... Their speeches poor."[340]

The CMS Missionary William Yate who worked among Bay of Islands Maori between 1828 and 1834 attributed the return to small and medium scale predatory raiding to the absence of inspirational and coercive leadership among Ngapuhi and the presence of large enemy taua operating in the south.

"... no commander has been found whose influence and talent would bear a comparison with his (Hongi's), and the difficulty of assembling the tribes for a general war expedition has been very great. No one dared to refuse when Hongi called, for if he did, he was certain to suffer most severely for his refusal. But now the war cry may go round the Bay, from house to house, and from village to village, and none answers the call. It is with the utmost difficulty that a sufficient number can be raised to go to war, beyond their own immediate district lest they should be met by a party more powerful than themselves. They well know that destruction would be their inevitable fate."[341]

The northern tribes retained the capacity to field large taua well into the mid 1830's though there was little enthusiasm for war. By 1834, the Church Missionary Society had established a fifth mission station at Kaitaia, some forty miles northwest of Waimate. The Rev. Joseph Mathews and Rev. William Puckey calculated that the population was still "sufficient to place 1600 fighting men in the field."[342] Southern tribes similarly retained the capacity to field large forces. In 1834, the Rev. A. W. Brown and James Hamlin travelled south to explore the Waikato. By march 1834 they were in the Waikato among tribes they estimated could muster 6580 fighting men.[343] The missionary William Williams on January 18th 1834 estimated that the Bay of Islands tribes could still muster 3000 warriors.[344]

Several inter-related factors contributed to the decline of the musket armies. The dispersal of tribal populations that followed the fall of the powerful iwi fortresses meant that musket armies were neither able to rely, as formerly, upon provisions foraged from extensive enemy plantation, nor on large scale cannibal feasts to sustain them after battles and sieges. The spread of war weariness and missionary influences

[340] Williams, H. p 228.
[341] Yate, W. *An Account of New Zealand* (London 1835) p 119.
[342] Missionary Register 1834. Cited in Marsden, S. p 514
[343] Missionary Register 1834. Cited in Marsden, S. p 514
[344] Williams, W. Cited in Urlich.

among the fighting men were important additional factors. Ultimately the saturation of the tribes with powerful military muskets and ships cannon during the 1830's saw intertribal battles become more prolonged, costly and inconclusive. With the emergence of this new intertribal balance of power or balance of terror, the musket armies quickly faded from the scene.

The secondary literature depicts the great taua as squabbling confederations of tribes that arose from a chaotic period of warfare, where savage warrior hordes roamed the land seeking plunder and human flesh. The campaigns undertaken by the great taua however were never random or indiscriminate affairs. Muskets armies were the consequence of rationally organised grand endeavours by charismatic war leaders who were able to conceive and conduct military campaigns where large bodies of warriors were armed and transported to remote battle zones for singular military objectives. The musket chiefs, Hongi Hika, Te Rauparaha, Te Waharoa and Te Wherowhero sought utu in the traditional context, while their musket armies fulfilled vital strategic objectives. Musket armies gained access to strategic resources that included slaves, flaxlands, forests and booty for trade. The armies additionally won access to strategic trading ports, while permanently removing the threat posed by powerful neighbours who were also accumulating guns.

Nor were the great taua exclusively Maori affairs. Europeans supplied the large quantities of guns and munitions necessary to chiefs promoting these expeditions and European blacksmiths repaired defective Maori flintlock guns preceding the campaigns. European sea captains provided the ships that transported Te Rauparaha's taua to Akaroa in 1830, Titore's expedition to Tauanga in 1833 and Te Ati Awa on their invasion of the Chatham Islands in 1835. More interestingly, Europeans captained or crewed many of the tribal artillery pieces employed in the inter-tribal battles, and accompanied the great taua to war in the role of tribal fighting men.

Chapter Six

FOREIGN FIGHTING MEN IN EXPEDITIONS OF WAR

The Ngapuhi musket armies became a major force for social change in Maori society. Rather than providing a defence against European incursions from abroad, the northern chiefs and their musket armed toa acted as agents in the diffusion of knowledge about western military technology and in the diffusion of the technology itself. The terror generated by incessant Ngapuhi musket raids after 1817, in conjunction with their customary intertribal trading and gift giving activities, inspired the southern rakau (conventionally) armed tribes to acquire similar armaments. In their endeavours to emulate 'Ngapuhi and their fine army'[345], the southern tribes sought to possess not only iron and steel weapons in the shape of cutting and stabbing blades, but blunderbusses, swivel guns and volley guns, the most destructive weapons available from the flintlock arsenals of Europe, along with rag-tag collections of military dress and the multitude of accoutrements deemed necessary to maintain a 19th century Maori flintlock army in the field.

It is not surprising then, that chiefs of both musket and rakau armed tribes, sought to gain an advantage against their rivals and enemies by including 'na pakeha kes' (the strange men)[346] in their expeditions of war. Principally of European stock, the strangers were representative of a new and powerful cast of people whose mana derived from their possession and mastery of the gun.[347]

The first foreigners recruited as warriors by the hapu chiefs during the early years of the 19th century appear to have been assimilated by Maori with relative ease and were treated as Maori,[348] though it would be noted that the Europeans among the transculturites were immune from rewharewha (introduced diseases), impervious to makutu (bewitching) and invulnerable to the Atua (vengeful spirits[349]).

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[345] Marsden, S. p 75.
[346] Polack, J. Vol 2, p 269.
[347] Sharp, A. *Duperreys Visit to New Zealand in 1824.* p 61.
[348] Thompson, A.S. pp 298/299.
[349] Polack, J. p 235.

The escalating number of 'na pakeha kes' participating in village life and accompanying predatory expeditions as individuals or as bands of adventurers during the 1820s and 1830s however is indicative of the resilience of the Maori socio-political order and the rise of the great musket armies where boys, women and slaves, groups previously excluded from the fighting, increasingly took combatant roles.

While several visitors to the Bay Of Islands noted the presence of non-European foreigners who had accompanied their tribes to battle during the 1820s, the primary literature largely focuses on the exploits of Europeans, particularly Englishmen who, having become conversant with the Maori language were termed Pakeha-Maori (native white men[350]). In contrast to the Europeans who later accompanied the musket taua while carrying out their roles as missionary peacemakers or itinerant guntraders, several early Pakeha-Maori rejected much of their European culture, marrying into the tribe and accepting full kinship group obligations. Having endured the agonies of the moko ceremony -the systematic tattooing of face, buttocks and thighs - and taken 'the warriors clothes', these men were expected to distinguish themselves in tribal expeditions of war and were compelled by hunger to participate in the post battle cannibal feasts, essential to the success of the great taua undertaking arduous inter-seasonal campaigns into remote and unfamiliar regions.[351]

George Bruce, a Londoner and convict deserted from the vessel *Lady Nelson* at the Bay of Islands in 1806. Bruce was the first Pakeha-Maori known to have accompanied Ngapuhi on early expeditions of war. His protector was the chief Te Pahi. Describing the leading role Bruce had in these expeditions and the significance of his tattooing Dumont D'Urville records: "As King Tippahi proposed to place the young Englishman at the head of his army, it was a prerequisite that he be tattooed, because without having undergone the operation, he could not be regarded as a warrior. The case was urgent, peremptory and admitted to no delay. Bruce therefore submitted to this painful operation with resolution and courage. In a short time his entire face represented a real masterpiece of the art of tattooing[352]."

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[350] Polack, J. p 239.
[351] Markham, E. p 75.
[352] Legge, C. p 278.

Jacky Marmon a fighting pakeha-Maori from the Hokianga was called 'Cannibal Jack' with good cause. Marmon first ate roasted human flesh to impress Hongi Hika during the three day cannibal feast following the fall in 1821 of Mokoia - Mauinaina Pa to Hongi Hikas first great musket taua. "This was my first experience of human flesh, and as served up by the Maori cooks was very passable.... I was regarded as a dauntless tohunga, and a pakeha to be retained in especial honour, because I disdained not the most refined dish a Maori warrior can set before his guest."[353]

Escaped convicts and runaway soldiers seeking to avoid European contact by living among the tribes, had limited potential as trading agents for chiefs wishing to acquire muskets and powder for offensive or defensive warfare. Fugitives who believed that they could emulate their beach-combing counterparts elsewhere in Polynesia and 'live like Gods" among the Maori were rapidly disillusioned. Despite the initial novelty value of such individuals[354], the Maori social system was unable to support non contributing outsiders for long and Europeans lacking the physical and psychological attributes essential for warriorhood were enslaved or killed and eaten[355]. The Pakeha-Maori Frederick Maning, trading at the Hokianga in the early 1830s under the protection of the chief Moetara recalled the fate of one luckless fugitive.

> "Two men of this description (runaway sailors) were hospitably entertained one night by a chief, a particular friend of mine, who, to pay himself for his trouble and outlay, eat one of them next morning. Remember, my good reader, I don't deal in fiction; my friend eat the pakeha sure enough, and killed him before he eat him, which is civil for it was not always done. But then certainly the pakeha was a tuatua, a nobody, a fellow not worth a spike nail; no one knew him; he had no relations, no goods, no expectations, no anything; what good could be made of him? Of what use on earth was he except to eat? And indeed not much good even for that - they say he was not good meat."[356]

Some foreigners forcibly seized by the tribes and fugitives granted sanctuary from European justice, proved exceptional warriors. Renowned for their courage and ferocity in battle, a number of these trans-culturites were accorded chiefly status, leading contingents of tribal warriors in predatory expeditions. The Church Missionary Society leader Samuel Marsden at North Cape in 1814 encountered a

[353] Marmon, J. Auckland Star 21 January 1882.
[354] Thompson, A.S. pp 298, 299.
[355] Maning, F.E. 1863 p 19. Thompson, A.S. p 298.
[356] Maning, F.E. p 19.

Tahitian who held chiefly rank, the first recorded non-European to have accompanied a Maori taua to war.

> "Jem the Otaheitan told me he had been three times within the last five years at the East Cape to war in company with one thousand men. When with all this travel and toil, they arrive in the territory of those whom they are going to plunder, it is only for a few mats or a few prisoners of war"[357]

Foreigners elevated to the rank of chief were more than figureheads and chieftainship brought with it obligations and expectations that could not be avoided. D'Urville wrote:

> "Among these people who are essentially warriors, the chief can on no account evade the responsibility of leading his combatants to the battlefield personally.... The chiefs are always strong, active, young and in their prime. Maybe like the natives of North America, they choose men who are known to be courageous, talented and good soldiers, for a people at war need just such a chief to inspire and lead by his knowledge."[358]

The Jewish trader Joel Polack encountered other non-European foreigners during his travels through the Hokianga and Bay regions during the early 1830s. Polack noted that the 'honours of chieftainship' had been extended to some Englishmen, Sandwich Islanders and Marquesans[359] including 'a Bengallee' possibly the same 'native of Bengal' Richard Cruise from *HMS Dromedary* observed living among the Bay tribes in 1820[360]. As late as 1843, two American Negroes were found living amongst Waikato Pakeha-Maori[361] but it is difficult to assess the influence of these non-European foreigners on Maori warfare as they are largely excluded from the contemporary literature and their existence acknowledged in the most perfunctory manner.

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[357] Marsden, S. p 129.
[358] Legge, C. p 228
[359] Polack, S. Vol 2, p 74
[360] Cruise, R.A. p 313.
[361] Wilson, O. *From Hongi Hika to Hone Heke.* (Dunedin,1985) p 79.

The presence of Pakeha-Maori in the predatory expeditions, and their proficiency with the musket raised the morale of the taua and the level of fear among their enemies, for such taua were known not only to possess the musket, the all powerful weapon of the Pakeha, but were accompanied by the Pakeha themselves, the perceived creators and masters of these destructive devices.[362] Jacky Marmon believed "the great secret of the Maori to have a resident pakeha amongst them, was the desire to possess all the methods and warfare and offence known to him..."[363]

The Poverty Bay guntrader, Barnet Burns, captured by Ngai Te Rangi in the early 1830s when they massacred his trading party, was spared by agreeing to fight for his captors and to be tattooed. Eventually escaping to his own tribe, Ngati Kahungunu, Burns achieved sufficient prowess in war to lead a contingent of 130 warriors in an expedition 600 strong against the Whaka To Hea people.[364]

Aboard the ship *Rossana* in 1826, the surveyor Thomas Shepherd interviewed James Caddell, a Pakeha-Maori from the Foveaux Strait region who in 1810 had survived the massacre of his sealing gang on Stewart Island. By marrying Tokitoki the daughter of his chief, undergoing the tattooing ceremony, and by virtue of his prowess as a warrior, Caddell achieved the status of a chief.[365] Among the useful information Caddell provided on the customs and habits of the southern Maori was the advice:

> "No European should be amongst them without a weapon, of which the gun is by far the best. It is next to impossible to attack a New Zealander with a sword or bayonet, as they have a method of grabbing it with one hand, killing the attacker with a mere or spear before he has time to make a second thrust."[366]

When Durmont d'Urvilles' vessel *La Coquille* departed the Bay of Islands in April 1824, the crew discovered a stowaway, James Burns who had been shipwrecked at the Hokianga in April 1823. Burns provided d'Urville with accounts of his life among the Bay of Islands Ngapuhi including his participation in their expeditions of

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[362] Earle, A. pp 92 - 93
[363] Marmon, Auckland Star 21 January 1882.
[364] Burns, B. *A Brief Narrative of a New Zealand Chief.* (London, 1836) pp 1 - 16
[365] Polack, J. Vol 1, p 52.
[366] Caddell to Shepherd. Cited in Jones, J.H. *Stewart Island Explored.* (Invercargill, 1994) p 37.

war, and the extent of casualties incurred by early musket Taua confronting tribes armed rakau-Maori.

> "When I accompanied them to war a second time, we had 15 large canoes and I surmise, 1000 men. Our loss was smaller the first time than the second. the first time it did not exceed 100 men and the second time one of the chiefs estimated the loss at 300. We brought back to Wai-tangui (Waitangi) five slaves taken by my chief."[367]

Burns appears to have been present at the battle on Mokoia Island, Lake Rotorua, between a powerful composite taua spearheaded by 1200 musket armed Ngapuhi and the tribes of the Arawa confederation about July or August 1823. This war expedition departed the Bay of Islands in February 1823 with contingents under Hongi Hika returning from the battle in October. Burns attributed Ngapuhi losses to "the enemies considerable numbers".[368]

In 1820, Richard Cruise from *HMS Dromedary* and his companions observed "a Marquesan" and a "native of Bengal" but makes no mention of Europeans living among the Bay and Hokianga tribes.[369] The French Navigator Dumont D'Urville, while exploring and charting the New Zealand coast aboard the Astrolabe in 1827, noted that since his first visit in 1824, "New Zealand had been invaded by deserters of every nation".[370] Most were congregated in the north, where fugitives allied to the Bay of Islands and Hokianga Ngapuhi provided the largest source of fighting Pakeha-Maori in New Zealand. The artist, Augustus Earle, at the Bay of Islands in 1827, was able to interview "several Europeans who had accompanied various tribes to battle" on the subject of Maori musket warfare. These men were of the opinion that the warriors did not make effective use of their muskets in intertribal battles.[371]

The Reverend Henry Williams, accompanying a grand expedition against Ngai Te Rangi at Tauranga in the hope of negotiating peace, noted the presence of English fighting men amongst a contingent of Hokianga Ngapuhi.[372]

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[367] Legge, C. p 287.
[368] Legge, C. pp 286 - 288.
[369] Cruise, R. A. p 315.
[370] Wright, O. *New Zealand 1826 - 1827.* From the French of Dumont d'Urville. (Wingfield Press) p 18.
[371] Earle, A. p 65.
[372] Williams, H. p 222.

Two northern Pakeha-Maori, Jacky Marmon and John Rutherford achieved considerable fame and some notoriety through published accounts of their life among the tribes. Jacky Marmon, an escaped convict, tattooed by Bay of Islands Ngapuhi, accompanied Hongi Hika's first great Musket taua against Ngati Paoa at Tamaki in 1821 in the role of tohunga.[373] Marmon was also present on the battlefield at Te Ika-a-ranganui near Kaiwaka in 1825 when a Ngapuhi musket taua under Hongi Hika finally broke the forces of Ngati Whatua under their chief Murupaenga.[374] John Rutherford, a runaway sailor, was also present on the Te Ika-a-ranganui battlefield, probably in support of Bay of Islands Ngapuhi. Though extensively tattooed and armed with two pistols and a double barrelled gun, Rutherford later claimed to have accompanied his tribe to battle as a mere spectator. The barbed spearhead removed from his thigh after the battle by two Maori women operating with an oyster shell in a major feat of surgery, suggests a more energetic involvement.[375]

Marmon and Rutherford were representative of the much larger anonymous group of fighting Pakeha-Maori encountered by Earle in 1827 and Williams in 1832. In 1832 Maning described the group of Pakeha-Maori who generally congregated and cavorted in the pa of Pomare the Second at Otuihu in the Bay of Islands as:

> ".... a sort of nest of English, Irish, Scotch, Dutch, French and American runaways from South Sea whalers, with whom were also congregated certain other individuals of the pakeha race, whose manner of arrival in the country was not clearly accounted for, and to enquire into which was, as I found afterwards, considered extremely impolite....They lived in a half savage state, or to speak correctly in a savage and a half state, being greater savages by far than the natives themselves."[376]

European runaways and traders at the Hokianga were another source of fighting Pakeha-Maori. Edward Markham, the English traveller who visited the Hokianga in 1831, estimated seventy Europeans living on the river among a Maori population of 3000 to 4000. Unfortunately numerous passages in Markham's original manuscript were abridged or not printed. An entry pasted into the original manuscript included this tantalising sentence "He (Markham) also met with Maning, Kelly, Oakes and

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[373] Wigglesworth, R. "Marmon, John" Cited in *The Dictionary of New Zealand Biography.* Vol 1 (1990), p 270.
[374] Wigglesworth, R. p 270.
[375] Rutherford, John. *The White Chief* Drummond, J. (Ed) (Wellington, 1908) p 27.
[376] Maning, F. p 19.

Marmont and many other "Pakeha" Maories whose histories and circumstances he describes in terms which could not well be put in print".[377]

The tribes of the Cooks Strait region boasted many Pakeha-Maori fighting men and it was not uncommon for these men to engage each other during intertribal battles. The travelling scientist, Ernst Diffenbach, touring the Cooks Strait region in 1839 recorded: "For the last fifteen to twenty years ... we find Europeans arrayed against Europeans in the combats of the different tribes amongst whom they lived ... when dead, they were bewailed as brothers by these sons of nature and a painted canoe erected as an ornament over their graves."[378]

As the musket chiefs began to accumulate ship's cannon and carronades to gain an advantage over enemy tribes increasingly armed with quantities of surplus military muskets, European seamen who were proficient in the operation of heavy ordnance became highly prized acquisitions. By 1835, some thirty-four tribal chiefs between North Cape and Ruapuke Island in the Foveaux Strait had incorporated seventy heavy guns into their offensive and defensive tactical plans.[379]

In 1832 the Ngapuhi chief Titore led a remarkable expedition against Ngai Te Rangi at Tauranga, transporting some 800 warriors and a siege train of ten great guns to the south in a flotilla of eighty canoes and cutters. The Rev. Henry Williams, accompanying the expedition, noted that at Whitianga the cutter belonging to the Hokianga chiefs Patuone and Pi, diverted from the main fleet in an abortive attempt to surprise the inhabitants of Tuhua (Mayor Island). This cutter carried 60 warriors and a number of Pakeha-Maori adventurers including an English gunner who used the cutters heavy gun to fire on the inhabitants of Tuhua who had assembled on the shore to resist their landing.[380] In the course of the journey south, four runaway sailors who had fled the ship *Lucy Ann* at the Thames were captured by Ngapuhi who were in favour of 'harnessing them to the great guns, that they might work them against the enemy.'[381] At the intervention of Henry Williams and the expeditions leader Titore, the sailors were released to continue their journey to the Bay of Islands.

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[377] Markham, E. p 11.
[378] Diffenbach, E. *Travels in New Zealand.* Vol 1 (London, 1842), p 187.
[379] Bentley, T.W. "Acculturating Heavy Metal, Maori Artillery in the N.Z. Musket Wars." *Historical Review.* Vol 7, No. 2 (1996), pp 23 - 31.
[380] Williams, H. p 228.
[381] Williams, H. p 218.

The most celebrated account of Pakeha-Maori participation in inter-tribal warfare occurred during the siege of Otaka Pa at Nga Motu, Taranaki, by 1600 Waikato under their paramount chief Te Wherowhero in 1832.[382] Eight Pakeha-Maori of Te Atiawa, the defending tribe, employed three ship's cannon and a swivel gun against the attackers, firing stones as a substitute for grapeshot. Under the leadership of Dicky Barrett and Jackie Love, the Pakeha-Maori and their heavy guns proved critical in breaking up the Waikato assaults and forcing the eventual withdrawal of the besieging taua.[383]

It became common practice for Pakeha-Maori flax traders to mount a battery of heavy guns in front of their trading stations during the 1830's. As these stations were often located within the confines of the main tribal pa, the batteries enhanced the mana of the inhabitants and acted as a powerful psychological deterrent against enemy attack. These more affluent Pakeha-Maori traders, were often associated with the Sydney based gun trading houses and included, Phillip Tapsell at Maketu,[384] Captain Kent at Kawhia,[385] Thomas McDonnell at Horeke in the Hokianga[386] and Captain Harris at Poverty Bay.[387] Though not tattooed, many of these traders took Maori wives and found it expedient to adopt the customs and conventions of Maori culture.

In 1859 one of New Zealand's first written histories was published, the work of the military surgeon and historian A. S. Thompson.[388] *"The Story of New Zealand"* was based largely on Thompson's use of general writing on early New Zealand, and interviews Maori and Pakeha who lived and fought during the Musket Wars.[389] Thompson's history provides an estimate of Pakeha-Maori numbers in the years preceding the New Zealand Wars.[390]

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[382] Polack, J. Vol 2, pp 304 - 307.
[383] Polack, J. Vol 2, p 304.
[384] Matheson, A. "Tapsell's Big Guns" Cited in *Historical Review, Bay of Plenty Journal of History.* Vol 37, No 1, pp 1 - 9.
[385] Cowan, J. *The New Zealand Wars.* Vol 2 (Wellington, 1856), p 317.
[386] Stack, J. Evidence to parliamentary Select Committee *British Parliamentary Papers* 1837 - 8. Vol 21, p 225.
[387] McKay, J.A. *Historic Poverty Bay The Story of Old Wairoa.* (Dunedin, 1925) p 27.
[388] Thompson, A.S. p 302.
[389] Belgrave, M. "Thompson, Arthur Saunders" Cited in *The Dictionary of New Zealand Biography.* Vol 1, p 535.
[390] Thompson, A.S. p 535.

"Before 1814 there were in New Zealand 6 Pakeha Maoris

In	1827	"	15	"
	1830	"	50	"
	1835	"	100	"
	1840	"	150	"
	1845	"	50	"
	1850	"	15	"
	1853	"	10	" "[391]

The circumstantial evidence identifies by name six individual Pakeha-Maori who fought with the tribes in the years 1820 - 1827[392] and given the limited amount of gun trading conducted by Pakeha Maori during this period, it is not unreasonable to assume that the seven others identified by Thompson in 1827 were also fighting men. Maning who was obliged to 'shoulder his musket' and accompany his own kin to battle against Hone Heke during the Northern War in 1845 wrote:

> "... might was to a very great extent right, and ... bodily strength and courage were almost the sole qualities for which a man was respected or valued ... At that time in a country like New Zealand, ... every man was a fighting man or nothing."[393]

It is more difficult to assess the proportion of fighting Pakeha-Maori among the 50-100 men Thompson estimated to be living among the tribes between the years 1830 - 1835 for just fifteen individuals can be identified by name from the primary material relating to this period.[394]

Individual tattooed Pakeha-Maori appear to have continued to fight alongside their tribes well into the 1830's,[395] but were increasingly drawn into the role of bartering agents between their hapu and the shipping, or supplanted by the new class of professional traders who appeared from the mid 1820's. These traders also married into the tribes and learned to speak Maori to improve their survival and trading prospects. Too valuable to be risked in predatory warfare, the trading Pakeha-Maori

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[391] Thompson, A.S. p 535.

[392] These transculturites were Marmon, Caddell, Barnet Burns, Oakes, Kelly and Rutherford.

[393] Maning F. p 35.

[394] Those identified were the eight Pakeha-Maori at Otaka Pa in 1832, and Burns, Maning, Smith, Newborne, Kelly, Oakes and Marmon.

[395] Burns, B. pp 1-6.

were not tattooed but ... "were to be honoured, cherished, caressed, protected and plucked" by the chiefs, "so that the feathers might grow again".[396]

In the roles as agents between the tribes and the shipping, or as independent traders or representatives of the Sydney gun trading houses, these Pakeha-Maori played a critical role in equipping the southern tribes with muskets and powder in exchange for cargoes of flax, timber, pork and potatoes. The expanding flintlock arsenals enabled the southern tribes to confront and defeat a succession of Ngapuhi taua commencing with the ambush and defeat of a Ngapuhi force under Pomare, by Waikato tribesmen in 1826.[397] Nevertheless, when their livelihoods and Maori kinsfolk were threatened, some Pakeha-Maori traders fought alongside their protectors, in spite of the popular advice given to those embarking on ventures in the flax, timber and provisions trade.

> "It is very impolitic of Europeans living among them to concern themselves in the native wars, further than protecting their own premises, if the village in which they are living happens to be attacked ... it is a great chance but they would lose their lives; while refraining in having anything to do with their quarrels, they would probably save their lives, but ... are sure to lose all they are possessed of and would be stripped even to the very clothing on their backs."[398]

Pakeha-Maori participation in inter-tribal warfare reached its zenith in during the years 1832 - 1833. Trans-culturites fought alongside Te Atiawa at Taranaki and Ngapuhi at Tauranga during the most chaotic year of the Musket Wars. Throughout New Zealand, the major tribes, now heavily armed with powerful military muskets, clashed in a series of inconclusive offensive and defensive battles. Henry Williams noted that during the siege of Otumoetai Pa at Tauranga by Ngapuhi under Titore, the trading schooner *New Zealander,* sympathetic to the Ngai Te Rangi cause, swept close inshore and carronaded the Ngapuhi besiegers on the shore.[399] As the siege progressed, the Danish Pakeha-Maori, Phillip Tapsell, arrived in Tauranga Harbour aboard his own trading schooner. Bound by kinship ties arising from his marriage to Karuhi, sister of the Ngapuhi chief Wharepoaka, Tapsell provided the besiegers with six additional heavy guns and munitions 'on trust.'[400] In the same year St John and

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[396] Maning, F. p 19.
[397] Clarke, G. *Journal.* pp 19 - 29. Entry for June 1826 p 25.
[398] Sydney Herald 1837 17th July.
[399] Williams, H. p 240.
[400] Williams, H. p 236.

Captain Payne, the Kawhia based traders, accompanied a Waikato musket taua 3000 strong to a confrontation with Ngapuhi at Waikato Heads. Further north,[401] Frederick Maning stood with his tribe at the Hokianga during a confrontation with a force of 1000 Rarawa veterans.[402] Describing the state of New Zealand at this time the missionary Richard Davis lamented:

> "Many have died of sickness and disease while a greater number have been cut down in the field of battle ... the island at this time is in a very turbulent state ... The poor creatures are now generally supplied with firearms and ammunition and instead of going in small parties as usual, they now collect themselves together and fight army to army, and in some cases it is feared, white men join them."[403]

Pakeha-Maori in their roles as fighting men or gun traders for their tribes were a source of shame for their more respectable contemporaries. Regarded as 'the worst sort of European' they are excluded from the bulk of comtemporary literature describing early New Zealand and are condemned in the remainder. Passing references to these men in the missionary writings are particularly scathing though it was the early Pakeha-Maori in the form of George Bruce, Jacky Marmon, Jem the Otahitein and the Bengalee, not the missionaries who were the first important mediators of meaning between Maori and foreign cultures in New Zealand. Jacky Marmon particularly was labelled "a lawless kind of animal" (Edward Markham) "the terror of the river" (William Woon), "that vile fellow" (John Hobbs) and "one of the vilest characters in New Zealand"' (Mrs William White).[404]

Several writers including Augustus Earle, the Rev. Henry Williams and A.S. Thompson lived and worked among fighting Pakeha-Maori during their sojourns in New Zealand. These writers never identify the Pakeha-Maori by name in their writings, perhaps intentionally allowing these men some opportunity to rejoin European society. Maning, one who took this opportunity, recorded his experiences in "*Old New Zealand*", a wonderfully vivid account of his life as a Pakeha-Maori trader at the Hokianga during the 1830's. Ever loyal to his former Maori and

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[401] St John, L.C. p 33.
[402] Maning, F. pp 39 - 59.
[403] Davis, R. *Missionary Register 1833.* p 283.
[404] Wilson, O. p 80.

Pakeha-Maori comrades in arms Maning declines to name any of the seventy Europeans known to be living among the Hokianga tribes before 1840.[405]

The reluctance of writers to acknowledge the participation of Europeans in Maori expeditions of war persisted well into the late 19th Century. J. A. Wilson describing events in the central North Island and Bay of Plenty region during the 1820's and 1830's writes:

> "But though there were several Pakeha-Maoris engaged in supplying the belligerent tribes in the Bay of Islands with arms and ammunition in Waharoas time, yet non of them assisted the natives by joining or directing the fights. We make this remark merely because reports of an opposite nature were one time current."[406]

Given the attitude of the contemporary writers and later 19th century historians towards Pakeha-Maori, it is difficult to determine the numbers who accompanied the great taua, though the fragmentary evidence suggests that those that can be identified by name are merely representative of a much larger group of fighting European and non-European foreigners identified by A. S. Thompson.

Information on some Pakeha-Maori became available by accidents of fate. Joshua Newborne, was identified only because of his arrest for drunkeness in London in 1842. A tattooed Pakeha-Maori, Newborne claimed to have lived with Maori for ten years and had "frequently engaged with them in their battles with hostile tribes". Aboard a schooner captured by Maori, Newborne, as with other Pakeha-Maori, was able to survive the slaughter of his companions by "consenting to be tattooed and to live with them".[407]

Some Pakeha-Maori never chose to return to European society or perhaps could not and isolated individuals were found to be living with their tribes as late as the 1850's.[408] Others were killed in intertribal battles and their stories lost to posterity. Three Pakeha-Maori were killed by Ngapuhi in 1821 when Hongi Hika's great

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[405] Colquhoun, D. "Frederick Edward Maning" Cited in *The Dictionary of New Zealand Biography.* Vol 1 (Wellington), pp 265 - 266.

[406] Wilson, J.A. *The Story of Te Waharoa.* (Christchurch, 1907) p 173.

[407] Illustrated London News 21/5/1842 "Joshua Newborne, A Tatooed Pakeha" Cited in *Historial Review,* Whakatane and District Historical Society. Vol 29, No 1 (1981).

[408] Wilson, O. p 81.

composite taua stormed the Ngati Paoa fortress of Mokoia-Mauinaina on the Tamaki River. Their deaths at a time when fugitive, captive and shipwrecked Europeans were invariably ransomed for flintlock guns and powder suggests a particularly robust participation in the defence of their tribe.[409]

During Te Rauparaha's abortive expedition against Tama Iharanui in the Banks Peninsula region in 1830, a number of the northern invaders were killed and eaten by their intended victims along with an Englishman known simply as "Smith" who had accompanied the expedition.[410] St John reported in 1832, that a Pakeha-Maori living with a Waikato tribe, 'an incorrigibly bad character' known only as Paddy, robbed the Europeans living at Whaingaroa. Returning to his home by way of Port Waikato he was killed while resisting efforts by Ngapuhi raiders under Pukerangi to capture him.

> "... and an endeavour was made to turn him to a useful account by cooking him; but being placed on the festive ground (the festive board being out of the question) he was found to be so much impregnated with salt from the salt provision he had eaten, that he was rejected and ultimately given to the dogs."[411]

The fighting Pakeha-Maori encountered by Europeans during the 1820's generally appeared in a mixture of Maori and European dress in the 1820's and in European dress in the 1830's. They invariably appeared heavily armed with double barrelled flintlock guns of good quality and carried flintlock pistols and the greenstone mere for close in fighting.[412] They were a valuable source of information on tribal customs as well as practices of war and their fluency with the Maori language saw several Pakeha-Maori playing key roles as translators during negotiations between the chiefs and European land purchasers and traders.[413]

While the contemporary literature ignores or disparages the Pakeha-Maori, depicting them as transients slinking across the boundaries separating the Maori and European worlds, close scrutiny of the fragmentary evidence reveals men of considerable resourcefulness and courage, not merely existing amongst the tribes, but

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[409] Tuai to Lesson Sharp, A. p 65.
[410] Carrick, R. O. pp 80 - 81.
[411] St John, L.C. p 21.
[412] Burns, B. pp 7 - 8. Rutherford, J. *The White Chief.* p 189.
[413] Markham, E. p 72. Wakefield, J. *Adventure in New Zealand.* Vol 1 (London, 1845), pp 177 - 35.

prospering and advancing their status and influence within the established framework of a warrior society. While the presence of the strangers in Maori expeditions of war was unprecedented, their participation must also be seen as part of an established recruiting process whereby captives displaying the appropriate qualities were able to escape the shame of slavery and consignment to the oven by agreeing to fight for their captors, often in the role of armed retainer for a leading chief.[414]

The obligations binding the Pakeha-Maori and their tribes were enduring. James Caddel and Jacky Marmon were but two who chose to live out their lives among their adoptive tribes. Jacky Marmon and Frederick Maning shouldered their muskets and marched with the Hokianga tribes allied to the British cause as late as the Northern War of 1845.[415] Such obligations were reciprocal. When the British resident James Busby travelled to the Hokianga, offering rewards for the surrender of convicts hiding among the tribes, the chiefs agreed in principle, and for a price to surrender all convicts but Jacky Marmon. The chiefs informed Busby that Jacky Marmon could not be surrendered for he had become one of them.[416]

Unlike the nineteenth century European adventurers who attained generalships in North African and Asian native armies, no Pakeha-maori taught Maori to deliver controlled volley fire from ranks. No Pakeha-Maori in New Zealand attained a rank in Maori society beyond that of hapu chief and no Pakeha-Maori became an important strategic advisor to the musket generals. The principal function of Pakeha-Maori as gun traders and their psychological value as fighting men in the taua however was no less critical to the success of their tribes in battle.

Acculturation is the process by which elements of one culture pass to another. Both parties were irrevocably changed by contact. Maori acculturated European weapons and accoutrements in vast quantities but employed them in a Maori context. For Pakeha-Maori, survival in Maori society and survival on Maori battlefields meant conforming to the customs and military conventions of the dominant group. Maori tactics in inter-tribal musket warfare were well entrenched by the time Pakeha-Maori came to live among the tribes and pakeha-Maori were too few to have any significant

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[414] Maning. p 125. Duperrey. p 39. Yale. p 120.
[415] Cowan, J. *The New Zealand Wars Volume 1 1845 - 64.* p 82. Wellington 1922 - 1923 Maning. Preface.
[416] Wilson, O. p 81.

impact on Maori military conventions. Jacky Marmon recognised that Maori were always prepared to respond creatively to European military knowledge, but ultimately found nothing useful in European forms of warfare and did not seek to imitate them.

Chapter Seven

THE KAWAU MARO OR FLYING WEDGE

By 1818, the possession of growing quantities of flintlock guns by Ngapuhi, meant that the great tribal fortifications, previously bypassed by the early musket taua could now be attacked. Consequently, the number of pitched battles fought outside key strongholds between the musket armed tribes and rakau armed tribes increased. The limitations of the cheap trade guns and the sheer weight of numbers involved in the desperate rakau-musket battles of the early 1820's also compelled the evolution of a greater variety and flexibility of group tactics by the aggressors.

Warfare was said to be the "grand desideratum" of the musket chiefs who experimented with the new weapons and tactics with enthusiasm.[417] These chiefs quickly integrated traditional tactical patterns with new tactics that would allow the Toa to maximise the potential of their cheap trade guns without compromising their preference for close quarters fighting. This was achieved in part by modifying the functions of a traditional attacking formation, the kawau maro.

The kawau maro or flying wedge was a proven offensive tactic originating in the warfare of the classical Maori period. The ethnographer Elsdon Best believed that the word denoted a compact body of men prepared to charge the enemy[418]. The 19th century New Zealand military historian C.M. Gudgeon maintained that this infantry formation had a very specific purpose:

> "The kawau Maro (flight of the shag) was only used on desperate occasions and in tribal fights. For instance, a tribe rendered furious by previous losses or by the fiery eloquence of their chiefs, would solemnly devote themselves to death or victory and forming themselves into a solid wedge, would hurl themselves on their enemy in such a fashion that defeat of one or other of the parties was inevitable within a few seconds. The benefit of this mode of fighting is obvious, for if the assailants be only possessed of the necessary courage and will charge, reckless of all results, they will not lose the day."[419]

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[417] Earle, A. p 200.

[418] Best, E. *The Maori As He Was.* Volume 1. pp 230-238.

[419] Gudgeon, C.M. "Maori Wars." *Journal Of The Polynesian Society,* Vol 61, No 1. March 1967, p 41.

Pitched battles featuring head on charges by taua over open ground however were uncommon in rakau-Maori warfare. While displays of individual daring were admired and applauded, reckless charges that endangered the entire warrior force were not. Tribal tacticians in both rakau and musket warfare, preferred less costly stratagems to deceive their opponents and achieve victory.

In traditional Maori warfare, the greatest casualties followed the fall of a fortified position and the massacre of the inhabitants. The pitched battles that do occur in the pre musket era therefore are principally associated with siege warfare, with the most desperate fighting centering on the open ground in front of fortifications as the assembled defenders attempted to break up attacks by the besiegers before they reached the palisades.

The kawau maro was last used in rakau-Maori warfare by Ngati Tuwharetoa in 1819 to destroy Ngati Pahuwere in a pitched battle outside Aritapa Pa on the banks of the Maraetotora River. With the paramount chief Tewherowhero charging at the apex of the wedge, the two day siege concluded as the ranks of Ngati Pahuwere gave ground and the stronghold and it's inhabitants were destroyed.[420]

During the same year, the kawau maro formation was deployed for the first time in musket warfare by a combined taua under the northern chiefs Murupaenga and Tuwhare and the Kawhia chiefs Te Rauparaha and Te Puoho. The rakau armed defenders of Tatarimaka Pa on the South Taranaki coast assembled outside their palisades to confront this powerful taua boasting one thousand warriors and four prized muskets. The determined advance by Murupaenga at the head of the kawau maro and the terror caused by the sound and effects of the muskets, broke the defenders and Tatarimaka Pa 'was taken with great slaughter[421]'.

Long recognised by Maori as an effective battle tactic, there are frequent references to the use of the flying wedge in the oral traditions, waiata and contemporary Maori writing of the period. The fall of Tatarimaka Pa inspired a lament composed by one of the Taranaki people, commemorating the critical role of the war chief Murupaenga and the kawau maro in the fall of the position.

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[420] Grace, J. *Tuwharetoa.* (Auckland, 1959), p 289.
[421] Te Rauparaha, T. pp 44, 45.

"Sweet is the Spring, the September month,
When brilliant Canopus stands aloft,
As I lay within my solitary house,
Dazed with sad thoughts for my people
Departed in death like a flash.
To the cave of Rangi-totohu-
Emblem of sad disaster-
They are gone by the leadership
Of Uru, of the fearsome name.
'Twas there at the hill of Tatara-i-maka
The foe advanced in wedge-like form,
Whilst our gathered people bid defiance
At the entrance of the *pa*,
Where the Muru-paenga forced his way-
The army-raiser, the leader-
His was the fatal blow delivered,
At the ascent of Tuhi-mata:
Hence I am dried up here in sorrow."[422]

During the Musket wars, the kawau maro continued to be employed as a tactic founded in desperation but was more frequently employed as a calculated shock tactic in which the musket taua charged the enemy in wedge formation before devastating their ranks with point blank musket fire. Generally the tribal musketeers performed a final haka devoting themselves to death or victory preparatory to launching the flying wedge at the ranks of the enemy.

The Ngati Porou veteran of the Colonial Wars, Tuta Nihoniho describes in his dissertation on musket warfare, the ritualised manoeuvrings of two columns of warriors into the wedge formation in a display calculated to impress and intimidate their enemies in the moments before the charge:

> "The two columns meet each other and pass, running with uplifted guns and with short, restricted stride, and uttering curious sounds. Just as the returning column clears the rear of the advancing column it wheels into the rear of the latter in a right-about wheel, thus forming one solid column facing to the proper front. The whole force now advances as one column to the halting-place, performs a combined war-dance, and then *tau ki raro,* or kneel down.

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[422] Te Rauparaha, Tamihana. *Life and Times of Te Rauparaha.* (Martinborough, 1980), pp 44, 45.

> This solid column is known as a *kawau maaro* or *poupou tahi.* The neck of the *kawau* (cormorant) is stretched in flight; ere the long flight will commence."[423]

The kawau maro was invariably led by a paramount chief or proven war leader. The ethnographer, Peter Buck, states that the success of the tactic rested on the qualities of the warrior in the dangerous position at the apex of the wedge and that the two positions in the second row were 'places of honour occupied by the leading toa'[424]. While encouraging their warriors in a display of superior fighting skills, great courage and calculated ferocity, these chiefs were able to remain sufficiently detached from the action to recognise the moment when the battle had reached its critical phase. By deploying the flying wedge at this moment, defeat could be averted and a smaller force achieve victory over a much larger one.

Hongi Hika charged at the apex of the Ngapuhi flying wedge at the great rakau musket battles at Tamaki (1821) and Rotorua (1823). During both actions, he was struck repeatedly by shots from the muskets of his Ngati Paoa and Arawa enemies[425]. Hongis' invincibility and fighting prowess were undoubtedly enhanced by the nature of his personal armour and armament.

> "Hongi was.... not only formidable in regard to his personal prowess... but the accoutrements he wore... He was generally dressed in an ornamental mat, over which were his coat of mail, six pistols and a dagger were fastened to his belt and he carried two guns, and to add to the singularity of his appearance, his black face was buried in a large mass of glittering metal in the form of a helmet. Four attendants were always at his side, whose particular business it was to load his guns and pistols."[426]

Given the presence of guns among the enemy and their own lack of armour, few chiefs would have wished to contend with Hongi for the honoured but dangerous position at the head of the Ngapuhi Kawau maro. Certainly few could match his fighting skills and personal armament. Hongi told the Rev Samuel Marsden at Waimate in 1824, that during the Rotorua battle 'he had fifteen muskets himself which his servants loaded for him as he fired them.'[427] Described as mild mannered and

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[423] Nihoniho, T. *Narrative of Fighting On The East Coast 1865 - 71* (Wellington 1913), p 58.
[424] Buck, P. *The Coming of the Maori* Christchurch 1940, p 390.
[425] Marsden, S. p 390 Kelly, L. G. *Tainui* Wellington 1949, p 351.
[426] Davis, C. O. *The Life and Times of Kawiti* (Auckland 1855), p 7.

unassuming by the Europeans who met him, Hongis ferocity in battle, unrivalled among Ngapuhi, further assured his position.[428]

Maori war chiefs led their warriors by example. Hongi similarly could not order his men to participate in costly and potentially suicidal charges. At Rotorua in 1822, it was necessary for him to call for the approval of his warriors before forming the wedge.[429] The chiefs were well aware that the kawau maro put great stress upon the Toa and that a very fine line separated their control of fear from a complete collapse of nerve. The 'fiery eloquence of the chief' and the haka committing the warriors to the action were crucial in preparing the toa for the enormous psychological stresses of the charge. Tuta Nihoniho describes the importance of the chief's battle cries in initiating and maintaining the momentum of the charge during a musket battle:

> "However loud the roar of guns, let the shouting voice be heard "Charge! O (mentioning here the name of the clan or tribe) 'Charge! Charge!" Whereupon your enemy will break, retire, fly. Likewise, the clan or tribe whose name is thus shouted out - both sinews and bodies will be braced to rush recklessly toward that calling voice - sustained sympathy and a like mind that all should fall together on the field rather than be defeated.[430]"

Evidence gathered from European visitors to New Zealand by Commissioner Bigges Inquiry in New South Wales reveals something of the one sided nature of Maori battles in the years preceding Hongi's campaign against the great iwi fortifications.

> QUESTION: Had you any opportunity of knowing whether the introduction of arms and gunpowder had made the native wars more destructive?
>
> ANSWER: From information from the natives, the regular pitched battles in which gunpowder is most serviceable are not bloody; one side generally gives way when a few fall. This is also effected when the armies are at some distance from each other and before they can come in contact or make use of their own destructive weapons.[431]

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[427] Marsden, S. p 390.
[428] Cruise, R. A. p 20.
[429] Tarikawa, H. T. "The Fall of Mokoia, Rotorua", *Journal of the Polynesian Society* Vol 8, 1899, p 244.
[430] Nihoniho, T. pp 50, 51.
[431] Dr Fairfowls Evidence to Commissioner Bigges Inquiry. McNab, R. *Historical Records of New Zealand,* Vol 1 (Wellington 1908) p 557.

The Ngati Paoa and Arawa defenders encountered by Ngapuhi outside their great tribal fortifications at Tamaki and Rotorua were numerous, resolute and well led. Determined to die in defence of their ancestral lands, or while covering the withdrawal of their people, these toa did not break and run when initially subjected to Ngapuhi musket fire.[432] The great rakau-musket battle at Tamaki, in November 1821, heralded a distinct shift away from the pattern of easy victories enjoyed by Ngapuhi after 1818.

The Rev. Samuel Butler estimated that the first Ngapuhi musket taua that departed the Bay of Islands for the Tamaki campaign numbered some 2000 toa armed with some 1000 muskets.[433] The missionary Thomas Kendall maintained that Ngapuhi could muster 2000 muskets at this time[434] while the Rev. S. Leigh put the numbers of Ngapuhi warriors at 3000.[435] Indisputably, this was the largest musket taua assembled in the north and contained chiefs and toa from every Ngapuhi hapu and contingents from allied tribes.

Ngati Paoa and their allies assembled outside their pa Mokoia on the banks of the Tamaki River to confront Ngapuhi. Under their chief Te Hinaki, Ngati Paoa reputedly armed with just eight muskets (d'Urville puts the number at 100) counter charged the Ngapuhi advance, neutralising the guns of the northerners by close in fighting and forcing their withdrawal.[436] The Maori informants of A. S. Thompson led him to conclude that rallying retreating Maori warriors was an impossible manoeuvre. "Repulses were defeats and defeats were frequently destruction."[437] The Ngapuhi chief, Tuai, Hongi's rival, however told the French naval officer Primavere Lesson at Kororareka in 1824 that Hongi "roaring" was able to rally his men and 'return to the charge"[438]. Hongi's ability to rally his scattered forces at Tamaki, and again at the Rotorua battle in 1824, indicates rare qualities of leadership.

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[432] Makiwhara Anaru. The Fall of Mokoia and Mauinaina and The Death of Kaea 1821 *JPS,* Vol 32, (Masterton 1827), pp 94 - 95.
[433] Barton, R. J. (Ed) *Earliest New Zealand The Journal and Correspondence of the Rev. Samuel Butler,* p 172.
[434] Kendal, T. Cited in Binney, J.
[435] Leigh, Rev. Cited in Marsden S. p 42.
[436] Tuai to Dr Lesson Sharp, A. (Ed) *Duperreys Visit to New Zealand in 1824,* p 15.
[437] Thompson, A. S. p 128.
[438] Tuai to Dr lesson Sharp, A. (Ed),p 65.

An account of the battle at Tamaki recorded by the Rev. Richard Taylor in the Bay of Islands in 1839 confirms Tuais description of events:

> "The battle however was for a long time doubtful. Hinaki was a man of noble form and determined courage and though fighting on unequal terms, he still maintained the combat, until Hongi, arranging his men in the form of a cuneus or wedge, and placing himself at the apex, directed his men to wheel round to the right or left according to circumstances: at last he shot Hinaki who did not fall until he had received four balls ... Hinaki had two brothers who were likewise killed... About 1000 men were slain and 300 were cooked and eaten on the battlefield."[439]

Taylor's account, repeated with variations by the ethnographer and historian[440] S. Percy Smith and the Ngapuhi biographer C.O.Davis,[441] from their own Ngapuhi sources, describes how Hongi's musketeers advanced against Ngati Paoa in wedge formation before the charge, with the flanks of the wedge wheeling round to envelop the flanks of the defenders in musket fire. The ability of Hongi's musketeers to fall back into the formation[442] to reload or when counter attacked, suggests a high degree of familiarity with techniques of mutual support, acquired no doubt during the prolific predatory expeditions of 1818 - 1820. Some protection for the reloading musketeers may have been provided by their rakau armed comrades, but more likely as at Rotorua, by the inner ranks of musketeers who advanced steadily through the extended lines of their reloading comrades, to deliver a continuous hail of individually aimed musket fire, or controlled and concerted musket volleys, according to the directions of their chiefs.

At the battle on Mokoia Island, in 1823, Hongi led a Ngapuhi taua 1200 strong and fully armed with muskets[443] against the combined might of the Arawa tribes. On the northern shore of Mokoia Island, Hongi employed the kawau maro in its traditional role as a human juggernaught to break the stubborn defence of Ngati Uenukukakapo under their chief Te Korere.

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[439] Taylor, R. *Te Ika A Maui or New Zealand and Its Inhabitants* (Wellington1974) pp 312, 313.
[440] Smith, S. P. p 187.
[441] Davis C.O. *Patuone* (Christchurch 1976), p 17.
[442] Smith, S. P. p 187.
[443] Stafford, D. M. *A History of the Arawa People* (Wellington 1967), pp 178 - 182.

This Arawa contingent had stoically resisted attempts by Hongi's force to disembark and reinforce the main body of Ngapuhi.[444] Under Hongi's rivals Te Wera and Pomare (Whetoi), this Ngapuhi force had landed before Hongi's contingent, contrary to the pre battle arrangement.[445] Having lost a number of their fighters, and in danger of being cut off an annihilated, the survivors were engaged in a furious fighting retreat towards Hongi's position further along the bay.

> "Again said Hongi, when we draw near, I will charge with the point of the wedge (kawau maro).. Ngapuhi all replied, "Yes the rear will look to you and that we may all act together. "...Now great was the persistence of Te Arawa, not until they had returned three times to the charge did they retreat, and then there laid dead one hundred and seventy of them, struck down by the biting of the guns."[446]

In Maori warfare, as in the Napoleonic battles of the period, most casualties were inflicted on the enemy combatants, not during the shock of the charge but in its aftermath, the pursuit. The resolute defenders at Tamaki and Rotorua were broken by the destructive power of the new European military technology, the flintlock gun, delivered from a traditional attacking formation, the kawau maro. In the absence of the usual close pursuit, however, the scattered defenders held their ground. Unable to improvise tactics to counter the relentless musket fire of Ngapuhi, a dilemma exacerbated by the loss of their leading chiefs, the warriors played into the hands of Ngapuhi by repeatedly regrouping and counter charging into the mouths of the Ngapuhi guns.[447]

Contrary to the views espoused by a number of New Zealand writers, the battles at Tamaki and Rotorua were not easy victories for Ngapuhi. Evidence provided by Ngapuhi survivors reveal that the battles were particularly desperate affairs for the Northerners who suffered 'heavy losses'[448] at Tamaki and 'many wounded' at Rotorua.[449] Before the battles, Hongi's chiefs cautioned him against attacking such powerful enemy forces.

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[444] Tarikawa, H. T. pp 244, 245. Stafford, D. M. p 180, 181.
[445] Marsden, S. p 389.
[446] Tarikawa, H.T. pp 244, 245.
[447] Tarikawa. H.T. pp 244, 245.
[448] Sharp, A. p 65. Smith, S.P. p 187.
[449] Marsden, S. p 390.

To attribute Hongi's victories solely to his possession of flintlock guns, overlooks his deployment of the traditional kawau maro as a last ditch effort to avert defeat. Certainly Ngapuhi had a few alternative tactical options. Battling powerful and determined enemy forces, armed with slow firing and inaccurate iron trade guns and deep in hostile territory, any attempt at withdrawal would have meant defeat and consignment to the ovens with a life of slavery for the survivors.

By 1821 the large numbers of flintlock guns in the hands of warriors, posed a new set of tactical problems for the musket chiefs. By advancing in wedge formation the enemy could be driven back but only limited fire from the front and outer ranks of the wedge was possible. Only by retaining the wedge formation after the charge and deploying the musketeers in extended lines could Hongi hope to deliver effective volley fire and retain close contact with the enemy.

Ngapuhi raiders under the chief Te Morenga had demonstrated an understanding of the devastating effects of controlled volley fire in 1820 when 20 warriors under the Tauranga chief, Te Waru, fell beneath the single point blank discharge of 35 muskets[450]. The sheer weight of shot necessary to break the resistance of the Ngati Paoa at Tamaki was evidenced by the market gardeners at Panmure who in the middle decades of the twentieth century continued to unearth musket balls 'by the score'[451] on the slopes below Mokoia Pa.

The delivery of effective gunfire in the large scale rakau-musket battles depended solely on the discipline of the warriors and the steadfastness of the hapu chiefs. Confronted by huge assemblies of enemy tribesmen who sought to close with the Ngapuhi musketeers, accuracy was not vital, but it was important that the toa be able to load and fire as quickly as possible.

The barrels of the flintlock guns became fouled with burnt powder after several shots. As it was impractical to clean a fouled gun in Maori battles where swift advances and withdrawals were common, the chiefs employed reserve guns carried by their slave retainers. The warriors were compelled to use smaller shot to seat the musket ball on the powder charge. This caused fewer casualties among the enemy but the toa were able to maintain the momentum of fire by speed loading their muskets,

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[450] Te Morenga to Marsden. Marsden, S. pp 265, 266.
[451] Hollaway, *Maungarei,* (Auckland 1962), p 73.

setting the powder and ball in the barrel by striking the butt end of their guns on the ground. This distinctively Maori method of loading flintlock guns in battle made use of the ramrod unnecessary.

Many of the trade guns will have misfired due to the poor quality flints supplied by the Birmingham gunmakers. In the European battles of the period, where good quality muskets were employed, 80 percent of the misfires were due to the failure of the flint to ignite the priming charge in the pan. Twenty percent of the misfires arose from the failure of the primer to ignite the propellant charge in the barrel.[452] After the initial controlled volley directed by a hapu chief, the rate of free fire will have varied from warrior to warrior depending on the type of flintlock gun in use, the quality of the flintlock mechanism and the flint, the quality of the powder used and the warrior's familiarity and confidence with his weapon. These difficulties may well account for the high casualty rate among the Ngapuhi musketeers of Tamaki and Rotorua. The cheap trade guns were notorious for their tendency to misfire and the few Brown Bess muskets in the Ngapuhi armament generally misfired three times out of ten. [453] This meant however that at the Tamaki battle during a rolling volley of 1000 guns, Hongi could still count on between 500 and 700 shots for tactical purposes.

Flintlock guns were extraordinarily difficult weapons to fight with and the triumph of musket over rakau-Maori weapons was also the consequence of persistence and considerable fortitude on the part of the Ngapuhi musketeers. Their flintlock guns will quickly have become hot and the warriors half blind with sparks and smoke, so that the enemy tribesmen were seen as dim and hazy targets through a thick smoke screen. Burnt powder will have blackened their faces, hands and bodies and the warriors will have suffered a raging thirst the effects of saltpetre in the mouth from biting their cartridges. Maori began using a new term to describe victors of these battlefields, kai poura (powder eater).

While the battles at Tamaki and Rotorua proved the great destructive power of muskets, they also demonstrated their deficiencies. Hongi's musketeers fighting as individuals during the initial advance at Tamaki, were quickly routed by the rakau armed defenders. Similarly at Rotorua, the Ngapuhi contingents advancing in piecemeal fashion under Te Wera Hauraki and Pomare had come perilously close to

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[452] Held, R. *The Age of Firearms* (Illinois 1976) pp 108, 109.
[453] Wilkinson, F. p 197

defeat. Fighting independently with slow loading muskets, the toa were little more than a rabble, likely to cause significant casualties among their own side and were vulnerable to the charges of their opponents.

Only when the warriors were drawn up as an organised tactical unit where each man supported his fellow did Ngapuhi stand a chance of holding firm. Hongi's ready use of the kawau maro at Rotorua indicates that by 1823 he had recognised its value as an offensive formation from which to deliver an indigenous version of blitzkrieg, launching a lightning charge against the enemy centre to kill their chiefs, drive back their forces and systematically destroy their demoralised contingents with close range gunfire. Only then did the besiegers launch their final attack against the palisades and the terrified civilian population. Under Hongi then, the wedge formation acquired new flexibility and the fluidity of movement necessary to counter and defeat the great tribal forces arrayed against him.

Hongi's adaptations to the kawau maro mark a significant point in the evolution of Maori tactical formula. The intertribal clashes preceding Tamaki were not dissimilar to some infantry battles during the Napoleonic Wars where volleys of musket fire (or missile weapons in the case of Maori) were followed by a charge with individuals fighting individuals in battles that were little more than magnified duels. Hongi retained the fundamental shock tactic of the old formation but added refinements to provide the redefined musket wedge with enhanced offensive and some defensive capabilities. These adaptations enabled Ngapuhi to maximise the destructive potential of their trade guns (an armament of obsolete or trashy muskets, shotguns and blunderbusses) to utterly defeat Ngati Paoa and Arawa without recourse to traditional hand to hand fighting.

Few of the opposing chiefs had foreseen that European military weapons combined with traditional Maori shock tactics would produce slaughter on so grand a scale. At Tamaki and Rotorua they witnessed the horror of modern warfare founded on mechanical innovation. Of the use of the musket in close quarters fighting in India, the British General Napier said: "The short range and uncertain flight of shot from the musket begets the necessity of closing with the enemy."[454]

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[454] Strachen, Hugh. *From Waterloo to Balaclava* (Cambridge 19985), p 12.

The large bore of the cheap trade guns, flintlock muskets, blunderbusses and shotguns allowed all calibres of ammunition to be used and the lead balls, expanding on impact inflicted dreadful wounds.[455] The Reverend Samuel Marsden records that Waikato, the chief who accompanied Hongi on his journey to England in 1820 to obtain guns was so appalled that so many fell on both sides and the scenes of cannibalism, that he was unable to eat for four days, determined never to go to war again, and refused to accompany Hongi on his Rotorua expedition.[456]

Following the fall of the great Ngati Paoa and Arawa fortifications, the tribal tacticians realised that to give open battle against well armed and well disciplined musketeers was to invite disaster. The frightful effects of close range gunfire on the packed ranks of the defenders compelled the musketless tribes to develop new defensive strategies. Some iwi were able to acquire their own stock of firearms, enabling them to successfully fight off marauding musket taua from within their own redesigned strongholds. Others with limited access to coastal ports and the musket trade adapted a multitude of traditional field strategies to defeat a succession of Ngapuhi predatory expeditions after 1826.

The principal function of the kawau maro remained unaltered throughout the latter years of the Musket Wars. It remained a tactic that enabled a determined group of warriors to break through a stubborn screen of defenders to reach a fortified position quickly[457] but as tribal musket numbers increased, the tactic was employed less frequently in pitched battles outside fortified positions.

The kawau maro while used rarely in rakau and rakau-musket warfare, inevitably seems to have favoured the attacking force. Once launched the entire warrior body was carried forward and the force that received the charge was invariably the force that gave way. The musket chiefs were as conscious as any European general of the importance of moral cohesion to the success of a daring attacking manoeuvre. The haka, war cries and displays of chiefly courage continued to be employed by the musket taua to bond the toa indicating a thorough appreciation of the fundamentals of offensive military tactics. "A charge is not successful because its material power exceeds the violence the enemy can bring to bear against it. A charge succeeds

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[455] Given, B. J. p 217.
[456] Waikato to Marsden Marsden, S. p 364.
[457] Vadya, A. P. p 16.

against an enemy who falls back or breaks down because the opposition are more determined. the issue is decided before the parties come to grips."[458]

The great campaigns of Honga Hika were masterpieces of diplomacy and coercion. By persuasion, thinly veiled threats and sheer force of will, Hongi united rival hapu and tribes into powerful armies of invasion. For Hongi, strategy was the art of directing his diverse forces under fiercely independent chiefs to remote battle zones and obtaining concerted action once battle had commenced. Hongi's greatest skill was in selecting the decisive moment and decisive point at which to launch attacks spearheaded by the musketeers of the Ngaitawake, Ngati Rihiri, Ngati Rehia and Ngati Tuatahi, hapu to which he was closely related. Hongi's army invariably advanced against their foes waka toru - in three divisions and it is likely that his related hapu also comprised the assault parties that attacked the enemies palisades with axes. The wings of the musket army under Tuai and Pomare at Tamaki, and Pomare and Te Wera Hauraki at Rotorua providing covering fire for these assaults.

Many Maori chiefs, travelling to Sydney and London had witnessed the Imperial Regiments on parade and on manoeuvre in public parks, a popular Victorian weekend entertainment. These manoeuvres terminated in an exciting mock battle with displays of controlled volley fire. Similarly many chiefs were fascinated by stories of Napoleon and European battles. While Ngapuhi appear to have adopted European military tactics during the rakau-musket battles, these tactics evolved through purely Maori experience with flintlock guns after 1809 and during the southern predatory raids 1818-1820. Maori musket generals like their European contemporaries had learned by 1821 that gunfire from extended ranks or from mutually supporting bodies of musketeers was the only tactic whereby the flintlock gun could be employed effectively in large scale encounters.

Maori musket chiefs never imitated European tactics. European guns were fully acculturated into Maori warfare but they never revolutionised Maori tactics. The kawau maro was a uniquely Maori innovative adaption that exploited the advantages and compensated the limitations of trade guns. The kawau maro and subsequent tactical innovations in the period, were the product of purely Maori initiatives and were the result of tradition and long experience of European weapons in Maori warfare.

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[458] Earle, M. E. *Makers of Modern Strategy* (Oxford 1943) p 211.

The primary evidence suggests that Ngapuhi chiefs clung to established tactical methods long after they were outmoded by the acquisition of large numbers of muskets by their enemies. Consequently, a succession of Ngapuhi predatory taua were annihilated commencing with the defeat of Pomare in the Waikato in 1826 and Rangituke at Kawau Island in 1827. This tactical lag was due in part to a tribal economy and socio-military system geared to predatory musket raiding coupled with a lack of suitable military alternatives. By the early 1830's reflective musket chiefs were able to assess the causes of these reversals, see the futility of the old style musket campaign and seek ships cannon and carronades as alternative means of victory.

Chapter Eight

THE TRIBAL ARTILLERY

Introduction

These chapters examine the acquisition, acculturation and tactical use by Maori of heavy guns during the Musket Wars, a significant facet of inter-tribal warfare previously overlooked by past researchers. While focusing primarily on the impact of ships guns on the intertribal battles of the 1830's, this material also explores the important thread of technological continuity that links early tribal gunners and gunnery to the deployment of heavy guns against British forces during the Northern War of 1845, and the New Zealand Wars of the 1860's.

The circumstantial evidence reveals the emergence of a new type of military campaign during the 1830's founded on the possession of heavy guns by Ngapuhi in the North Island, and Ngaitahu in the south. Evidence pointing to the existence of musket pa adapted to resist and to deliver artillery fire, long before the British Army and British Artillery appear on the scene is also considered. This section additionally examines the importance of ships' guns as the principal currency of exchange in many of the first Maori land sales to Europeans in New Zealand and the ways in which the widespread possession of artillery helped create a new inter-tribal balance of power or balance of terror between tribes in the years preceding the Treaty of Waitangi.

References to the tribal artillery generally appear as the briefest fragments, given offhandedly and almost unwillingly in the primary literature. It became apparent very early in the research that many contemporary writers had certain preconceptions about the Maori as simple savages and about the superiority of European culture. Some of the European observers clearly found the notion of indigenous tribesmen possessing and employing the most powerful and destructive military weapons of Europe absurd or preposterous.[459] Such notions are understandable given that the flintlock musket and ships carronade were perceived by early 19th century Europeans as symbols of their industrial and social prowess. It was, therefore, difficult for visitors to accept

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[459] Polack, J. *Being a Narrative of Travels and Adventures .... Between the Years 1831 and 1837.* Vol 1 (London 1838) pp 16-18. Earle, A. pp 281-282.

that tribal warriors, whose cultures had played no part in the development of these weapons could actually maintain and operate artillery, let alone transport heavy guns and all their associated paraphernalia by land and sea on long distance military campaigns.

Nevertheless, while references in the primary literature to the Maori deployment of heavy guns during the decades of the Musket Wars are often fragmentary, they occur with sufficient frequency to indicate a pattern of widespread possession and deployment of tribal gun batteries in a variety of offensive and defensive roles.

The evidence reveals some seventy individual artillery pieces of various calibre in the possession of the tribes by 1840. As early as the 1810's these devices were keenly sought by Maori who termed them pu nui (big guns) purepo (great guns) or puhuri whenua (guns that cause the earth to tremble). Given the sheer weight of ordnance among the tribes, the extensive use of heavy guns in peace time rituals and intertribal warfare, and their use as powerful psychological deterrents, it is clear that many of the key events and trends that characterise the 1820's and 1830's were shaped by tribal chiefs who aspired to own heavy guns or by ambitious chiefs and leading Pakeha who possessed these weapons and exploited their destructiveness or potential destructiveness for military and economic advantage.

Acquiring the Great Guns

Plundered Guns

The reputation of the New Zealand seaboard as a coast of treachery, a cannibal coast and a fatal shore loomed large in the imagination of nineteenth century seafarers. European trading ships seeking cargoes in New Zealand waters during the 1820's and 1830's were consequently heavily armed, generally with carriage and swivel guns.

Despite their armaments, a number of ships provided rich pickings for the coastal tribes. Opportunist chiefs were able to acquire a number of great guns by attacking and plundering trading vessels at sea, or by the custom of plundering European ships stranded in tribal territory.

Ngati Pou at Whangaroa Harbour in 1809, acquired six heavy guns when they took the *Boyd* after massacring the crew. Major Richard Cruise, visiting Whangaroa aboard *HMS Dromedary* in 1820, noted that three of these guns had been mounted by the tribe in their main pa overlooking the harbour. Ammunition for these guns appears to have been highly prized, Cruise observed; "Some Maoris were diving on the wreck and they brought up some copper sheathing and two six pound shot which they held up to us but refused to dispose of."[460]

Ngati Awa at Whakatane acquired an armament of carronades and swivel guns when they plundered the brig *Haweis* in 1829. John Atkins, the second mate, who alone survived the attack upon the crew witnessed how Ngati Awa immediately employed one of the carronades loaded to the muzzle with stones to drive off an enemy force from Tauranga.[461]

The Pakeha-Maori, John Rutherford, who accompanied the Ngapuhi chief Hongi Hika on his campaign of conquest against Ngati Whatua at Kaiwaka in 1825, was, in all likelihood, a runaway sailor or convict. Rutherford claimed to have survived the massacre of the crew of the *Agnes*, a six gunner plundered by Maori at Poverty Bay in 1816.[462] Rutherford's tale must be treated with caution, there being no Ngati Porou tradition of a battery of heavy guns in the district nor any corroboration by European sources of a vessel being lost on the East Coast at this time.

During Ngapuhi interhapu feuding commencing with the Girls War of 1830, ships mooring at the Bay of Islands throughout the 1830's did so with considerable risk as increasing numbers of renegade Europeans allied with local Maori to harass the shipping. Ships in this period anchored in groups for mutual protection and relied on their great guns for defence. Attempts by Maori to capture visiting trading ships were not always successful Such forays could be accompanied by considerable loss of life among the warriors from the very guns they sought to possess. At the Bay of islands in 1832, Captain Driver of the brig *Charles Dogget*, employed cannon fired to clear his decks of Maori and renegade Europeans who attempted to seize the vessel in a night attack.

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[460] Cruise, R.A. pp 281-282.
[461] McNab, R. *Historical Records of New Zealand.* Vol 1, p 659.
[462] McKay, J.A. pp 58-72.

"All hands needed rest, especially Capt. Driver; but he well knew with whom he had to deal, ... it being probable that as soon as they had cast anchor, the natives and convicts would steal on board for plunder and murder. But water must be had, and a risk must be taken. The deck was cleared of everything ... The cannon, a large one, was moved next to the windlass, and loaded to the muzzle.... soon, noiselessly, about two hundred natives and Botany Bay men were aboard the brig. The Captain was as soon on deck as they were. he rushed to cannon, touching it off, sweeping the deck fore and aft with shell.[463]"

The most novel method of acquiring a heavy gun in this early period can be attributed to the Ngaitahu chief Tuhawaiiki (Bloody Jack), in the Foveaux Strait region in 1824. This chief volunteered to pilot the vessel *Elizabeth Henrietta* to safe anchorage at Ruapuke Island but inexplicably stranded the vessel on a boulder bank. When the ship's heavy equipment and great guns were transported ashore, one gun mysteriously disappeared and remained unaccounted for. Soon after the vessel was refloated and sailed from the harbour, a heavy gun miraculously appeared as part of the defences in Tuhawaiiki's pa.[464]"

Ships Carronade, Ngati Pou, Whangaroa.
Auckland War Memorial Museum

[463] Canham, P.G. p 15.
[464] Carrick, R.O. p 108.

This ship's carronade, plundered from the *Boyd* had been mounted by Maori on the highest point of Wairaupo or Tarahurunui Island Whangaroa Harbour. The settler William Jones, who located the gun when he purchased the island in 1837, paid the original Maori owners extra to transport the gun down to the beach to serve as a mooring for his vessel. After some dispute with a fellow settler over this piece, Jones[465] presented the carronade to the Auckland Museum which currently has it on display. Given its badly corroded state and the wooden plug in the barrel, it was not possible to measure the bore of this gun accurately, but it appears to be a 12 pounder.

Great Guns as Trophies of War

Ships Cannon, Russell

Standing on the foreshore at Russell in the Bay of Islands, this cannon is probably New Zealand's best known and most commonly photographed heavy gun. Unlike its 20 early nineteenth century companion pieces, this cannon is not a British

[465] Sale, W.F. p 82.

service weapon, arriving at the Bay in 1840 or 1841 with a cargo of horses from Chile on the vessel *Sourabaya.* Nor can this piece be regarded as a tribal gun through it was one of four artillery pieces plundered by Hone Heke's forces during the fall of Kororareka in 1845. Taken by Ngapuhi from the lower blockhouse in the town, one account states that the warriors quickly abandoned the piece when they realised it had been spiked or rendered inoperable, though it was later cleared and fired on festive occasions in the town.[466]

Carrying off great guns as trophies of war had its origin in the inter-tribal battles of the Musket Wars. Te Whakatohea warriors from the Opotiki district captured a great gun from Ngapuhi while assisting in the defeat of a predatory expedition under the Ngati Kuri tohunga Te Haramiti in 1832.[467] This gun was one of a pair of nine pound carronades taken as trophies when a composite musket army under Te Waharoa of Ngati Haua annihilated the raiders on Motiti Island in the Bay of Plenty. The ethnologist S. Percy Smith wrote that a great gun named Te Haramiti was still in the possession of Te Whakatohea in 1910[468] though it has since been lost.

The proliferation of heavy guns among the tribes and escalating inter-tribal warfare in the Bay of Plenty region in 1836 enabled some tribes in this region to acquire artillery as part of the spoils of war. Ngai Te Rangi and their Waikato allies captured the Arawa battery of twelve great guns under the captaincy of the Pakeha-Maori trader Hans Tapsell when they overwhelmed the defenders of Maketu Pa.[469] Ngati Kereru captured their great gun Tawakeheimoa, named after their great ancestor at the fall of the Ngai Te Rangi stronghold at Te Tumu in the same year.[470] Arawa were able to recapture five of their great guns at Te Tumu but Ngai Te Rangi had effectively spiked the remaining pieces by throwing them into the Kaituna River from which some were later recovered with great difficulty.[471]

The tribal gunners of the Musket Wars and the Maori gunners of the New Zealand Wars of 1845 and the 1860's, unlike their counterparts in the European artillery gun crews do not appear to have made any special efforts or sacrifices to save

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[466] *Russell Review.* Vol 2, No 1, 1978, pp 7 - 11.
[467] Wilson, J.A. pp 40 - 41.
[468] Smith, S.P. pp 434 - 435.
[469] Matheson, A. p 2.
[470] Matheson, A. p 9.
[471] Matheson, A. p 4.

their guns, pending defeat in open battle, or during the fall of a fortified position. While great guns gave an important tactical and psychological boost to Maori forces, they were generally abandoned as their weight and bulk compromised the chance of successful withdrawal or retreat.

This practice allowed British forces during the Northern War of 1845 to capture most of the artillery under the chiefs Hone Heke and Kawiti intact and still in their original casements at Oheawai and Ruapekapeka pas.[472] During the British invasion of the Waikato in 1863 their infantry found two great guns abandoned in the trenches at Meremere. A third gun had been thrown into the Waikato River by departing Kingite warriors - the second recorded instance where Maori are known to have deliberately spiked artillery in warfare.[473]

There is sufficient evidence available to suggest that most, if not all of the heavy guns captured by the British forces during the Northern and New Zealand Wars were not the precious ancestral or tribal guns from the Musket Wars but guns brought in from outside the district for the occasion, and, therefore, expendable. Of the four great guns Hone Heke transported to Oheawai pa at the Bay of Islands in 1845, two were nine pounders taken by Maori from the Waimate Mission station [474] and at least one of the guns was part of the spoils of Kororareka. The remaining pieces, a four pound cannon and a two pound swivel "had been brought in Bullock drays by Heke and his friends" and "gathered from one quarter or another."[475]

Certainly, Te Ati Awa in Taranaki buried their great guns with the first British invasion of their region, choosing to give battle without artillery.[476] Maori at Waingaro in the Waikato similarly buried their two great guns with the British invasion of 1863, equipping their defensive positions at Meremere and Paterangi Pa with old mission station guns and guns provided by their kin at Whaingaroa.[477]

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[472] Cowan, J. *The New Zealand Wars and the Pioneering Period.* Vol 1, pp 334 - 345.
[473] Cowan, J. p 344
[474] Cowan , J. p 54.
[475] Cowan, J. p 54.
[476] Scanlan, A.B. *Pukekura A Centennial History of Pukekura Park and Brooklands* (New Plymouth 1978) p 46.
[477] Cowan, J. p 333 - 334.

The Heavy Gun Trade

While the 1820's saw the widespread acculturation of muskets by the North and South Island tribes, the decade of the 1830's saw the tribes competing in a race to obtain heavy guns. By 1840, seventy individual artillery pieces of various calibre' and type had been noted by of European observers. These guns may represent a small proportion of the great guns actually traded for most Pakeha Maori traders and whaling captains did not record the types of armaments sold to Maori, and the Pakeha-Maori who fought with their tribes during the 1830's similarly left few records.

Heavy guns were employed in some inter-tribal conflicts during the 1820's but given the weight and numbers of individual pieces employed in offensive and defensive warfare, the 1830's were very much the grand decade of the tribal gunner. Driven by the fiercely competitive nature of inter-tribal relations and the desire to gain an advantage in warfare, individual chiefs and their tribes were prepared to employ any means possible to acquire cannon and carronades. The price of a heavy gun varied according to time, location and circumstances but heavy guns became an important medium of exchange and generally cost the musket chiefs dearly.

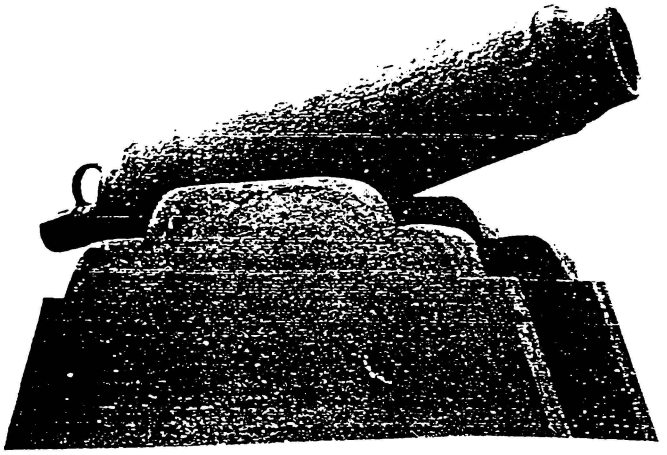
In contrast to the musket trade, the value of a great gun in terms of quantities of flax, potatoes, port and timber - the standard trade items of the period - has been difficult to locate. Two 12 pound cannon in good order, however, were valued in Sydney in 1840 at 40 pounds to the pair, approximating fifteen tons of pork or sixty-five tons of potatoes at 1830's prices.[478]

The concentration of tribal guns was invariably heaviest among those hapu in a position to take best advantage of the trade with European shipping. Moetara, the Ngati Korokoro chief who possessed three ship's carronades in the early 1830's was strategically situated at the head of Hokianga Harbour. Ngati Korokoro conducted a very brisk trade from the mid 1820's selling vast quantities of pork at three to four pounds per[479] ton and potatoes at twelve shillings per ton to the Sydney and Hobart traders. Moetara had some 300 acres in crops by 1834 and so bounteous was the Hokianga economy that the hakari or feast he held at Pakanae that year was attended

[478] Knox, R. (Ed) *New Zealand's Heritage The Making of a Nation.* 7 Vols, Wellington 1971 - 1973.

[479] Markham, E. p 3.

by 3000 to 4000 Maori, most of them armed. Edward Markham, the English visitor, wrote that there were 4000 bags of potatoes stacked in a line like a wall "about 2000 pounds worth in Sydney."[480] In December 1830, the trader James R. Clendon purchsed a Bay of Islands property of 300 acres for a six pound carronade, 42 muskets, four double-barrelled guns and casks and caskets of gunpowder to the value of £115,145 at sydney prices.[481] Specific details of how and when the Ngapuhi chiefs acquired their great guns have proved difficult to locate. What is certain, however, is that the acquisition of heavy guns and munitions in any historical period is an extremely expensive business and that, as a consequence of the booming flax trade and increased agricultural production in the north after 1830 considerable quantities of trade goods as well as hard currency were accumulated by the chiefs in the Bay of Islands region. Certainly, by 1832 nine musket chiefs in the Bay and the Hokianga had procured heavy guns and these weapons became an integral component in local fortifications and in the arsenals of predatory expeditions to the south. Generally, however, the southern chiefs obtained their great guns by exchanging tribal lands or lands taken by conquest in early musket expeditions



Blenkinsopp's Corronade, Blenheim
From McDonald, C.A. ***Pages from the Past.***

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[480] Markham, E. p 3.
[481] Hargreaves, R.P. *From Beads To Banknotes.* (Dunedin, 1972) p 33.

Transactions involving the exchange of land for heavy guns in several instances were the source of bloody or protracted disputes.

The so called Wairau massacre in 1843, had its origins in the fraudulent sale to the chief Te Rauparaha of this heavy gun by the whaler and trader Capt. Blenkinsopp, known to the Cooks Strait Maori as Kapene Paringatapu. Blenkinsopp exchanged the gun with Te Rauparaha in 1833 as part payment for the chief Te Pehi's daughter and the right to secure wood and water for his ship.

Te Rauparaha signed a document to this effect but when he and his chiefs had the document translated by a European flax buyer they were told: "All the land at Wairau has gone from you and now belongs to Kapene Paringatapu who has brought it from you all with a great gun".[482]

Te Rauparaha in a fury, tore his deed to pieces and these pieces were ritually burnt by his chiefs,[483] but Blenkinsopp's widow sold her copy to the Wakefield Brothers, who attempted to assert their right to the Wairau Plain with disastrous consequences, there being considerable loss of life among Arthur Wakefield's armed party of Europeans who disputed Ngati Toa's ownership of the plain.

This gun is a six pound ship's carronade. It has been variously and incorrectly described in the literature as a nine pound and eighteen pound cannon. The carronade stands today outside the Plunket Society Rooms in Blenheim. It is generally referred to in the literature as Blenkinsopp's gun but could equally well be titled Te Rauparaha's gun.

A protracted disagreement arose from the acquisition of Mana Island near Wellington in 1832 by three European settlers Alexander Davidson, John Bell and Archibald Mossman from the Ngati Toa chiefs Te Rangihaeata, Te Rauparaha and Nohorua. The chiefs accepted a ship's cannon, two swivel guns, two kegs of gunpowder and several shirts to the value of 24 pounds in exchange. The European buyers viewed the arrangement as permanent and binding while Ngati Toa saw it as temporary, the purchasers being allowed to use the land without the land itself being given away. In 1845, the Government awarded legal title of Mana Island to Henry

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[482] McDonald, C.A. *Pages from the Past, Some Chapters in the History of Marlborough.* (Blenheim 1933) pp 96 - 97.

[483] White, J. *The Ancient History of the Maoris.* Vol 6, p 43.

Moreing who had acquired all three original shares to the Island. The three Ngati Toa chiefs objected, arguing that the original purchase was not a binding agreement. The title of Mana Island continued to be disputed until 1865 when the Government purchased the Island from Moreing and paid 300 pounds in compensation to Ngati Toa.[484]

The Ngati Toa chiefs may also have sold Mana Island to another unwitting European party, a practice not uncommon among Maori chiefs of the period. Giving evidence before the British Parliamentary Select Committee on New Zealand in 1835, the chief Raupero related how "Mr Barrow who keeps a grog shop, had bought Mana Island in Cooks Strait for a heavy gun."[485]

The practice of exchanging land for heavy guns was particularly prevalent in the South Island. The Ngaitahu chief, Te Whakataupuka, obtained two 12 pound carronades, two air guns and one thousand pounds of gunpowder as part payment for Dusky Sound and Preservation Inlet in 1832. This transaction was the first documented purchase of land in the South Island. The buyer, Peter Williams, employed over one hundred men in the region in sealing, sawing timber and shore based whaling operations.[486] The following year, Captain Gaurd of the vessel *Harriet* traded a heavy gun purchased in Sydney with Nohorua, the brother of Te Rauparaha. Gaurd obtained in return, the right to establish a whaling station at Kakapo Bay. "The bargain was greatly facilitated by a demonstration which Gaurd gave by loading the gun and firing it off, for its power vastly pleased the natives[487] who christened it Pu huri whenua, the gun that causes the earth to tremble"

Taiaroa, the principal chief of the Otago region acquired a fleet of whaleboats armed with [488] cannon in the 1830's by selling and reselling the same blocks of land to different European buyers.

Land sales enabled at least one chief sufficient funds to personally buy his heavy guns in Sydney. Tuhawaiiki or Bloody Jack at Ruapuke Island in the Foveaux Strait

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[484] Sheehan, M. *An Introduction to the History of Porirua.* (Porirua Museum 1987) p 15.
[485] *New Zealand Parliamentary Papers.* Appendix to the Evidence 10 April 1835 p 113.
[486] Jones, F.G. *Historical Southland.* (Invercargill 1945) p 52.
[487] Buick, T.L. *An Old New Zealander or Te Rauparaha, The Napoleon of the South.* (Christchurch, 1911) p 215.
[488] Oliver, S. "Taiaroa Te Matenga" Cited in *The Dictionary of New Zealand Biography 1769 - 1869.* Vol 1 (Wellington, 1990), p 145.

region in late 1830's was noted for his familiarity with bills of exchange and is reputed to have purchased two ship's cannon on one of his many trips to Sydney. Conflicting accounts state that these guns were presented to him by Governor Gipps of New South Wales or by Henry Williams.[489]

The South Island land sales by the Ngaitahu chiefs should be seen in the context of the genocidal nature of inter-tribal warfare in this period. The sale of ancestral lands and the acquisition of both muskets and ship's guns were a survival response to the campaigns of extermination conducted by the Ngati Toa invaders and their allies from their bases in the Cooks Strait region.

Meanwhile in the North Island during the same period, the traders Captain Harris at Poverty Bay, Captain Kent at Kawhia, and Hans Tapsell at Tauranga were supplying heavy guns to local chiefs. Such was the demand for artillery pieces for the New Zealand trade that a shortage of these weapons was evident in Sydney by 1835. In that year, the Otago based traders, the Weller brothers, searched Sydney in vain for carronades or cannon with which to arm their schooner. Eventually George Weller was able to report to his brother that he had purchased three swivel guns and two muskatoons or heavy muskets "which will do good execution in case of need".[490]

There is one notable incident that illustrates the value of heavy guns in the period as currency. In 1835, Te Ati Awa commenced their invasion of the Chatham Islands aboard the Brig *Lord Rodney* of Sydney. The tribe was transported to the Chatham's in two voyages where the brig "effected the removal (from Port Nicholson) in two trips, of 500 - 600 natives, with a quantity of potatoes, pigs, corn, arms and ammunition". The captain of the *Lord Rodney* later reported "they gave me in payment, 2½ tons of pork, 41 old muskets, about 360 pounds of powder, one cannonade, a nine pounder, two fowling pieces and about seven tons of potatoes".[491]

The ship's guns traded to Maori were often antiquated or defective pieces, regarded as unfit for service on military or civilian vessels. European traders believed that they were subject to metal fatigue and heavy guns were sold to Maori on rotten carriages or without carriages. The three 12 pound carronades acquired by the chief

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[489] *New Zealand's Heritage.* Vol 4, p 317.
[490] McLintock, A.H. *The History of Otago.* (Dunedin, 1949) p 72.
[491] McNab, R. *The Old Whaling Days.* p 142.

Moetara at Hokianga in the early 1830's required new carriages constructed by European sawyers in the district[492]. Ironically, when Ngati Toa test fired Blenkinsopp's great gun, the source of the dispute and the tragedy at Wairau in 1843, they found the piece to be defective.[493]

The Pakeha-Maori Gun Batteries

As the pursuit of European guns and munitions became central to the lives and the survival of their tribes, musket chiefs were quick to appreciate that the permanent presence of a European trader in their own territory would be an effective means of acquiring heavy guns as well as an on-going supply of muskets and miscellaneous trade goods. While the South Island saw a predominance of whaling captains exchanging great guns for access to shore based whaling stations, in the north, the tribal Pakeha became the critical element in the process of acquisition.

It became common practice for the more affluent European traders to mount a battery of cannon or carronades to protect their base of operations. These trading bases were often located near or within the pa or kianga, and as the traders generally married the daughters of the leading chiefs and became immersed in the language and customary life of the tribes, the preservation and prosperity of both parties became inextricably linked. In the course of time, with the acculturation of the great guns into Maori ritual and the Maorification of the Pakeha traders, it is likely that these gun batteries became increasingly identified in the minds of both as tribal guns. While most Pakeha-Maori traders eventually abandoned their stations and their Maori wives, their heavy guns invariably remained with the tribe.

At Taranaki in 1826, the Ngati Awa Chief Te Wharepouri intercepted the trading vessel *Adventure* at sea and persuaded Richard Barret and Jacky Love to establish a permanent trading base at Ngamotu. The Pakeha were provided with Maori wives and a steady supply of flax, pork and potatoes for barter, Ngati Awa gaining in the

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[492] Markham, E. p 37.
[493] Buik, T.L. *Old Marlborough.* (Palmerston North, 1900) pp 242 - 244.

process, the protection of four shore based ships guns in 1828 and a supply of muskets for defence against their traditional Waikato enemies.[494]

Captain Rodulphus Kent who had traded on the New Zealand coast since 1820 settled at Kawhia in 1828 to trade muskets and powder with Waikato Maori in return for spars, flax, pork, potatoes and liquor. Kent operated under the protection of the Waikato paramount chief Te Wherowhero and married Tiria the daughter of this chief. On leaving Kawhia in 1838, Kent gifted his battery of guns to Ngati Tahinga at Whaingaroa.[495]

Captain Duke at the Bay of Islands protected his trading establishment and his Maori patrons with a battery of four, twelve pound carronades. During factional fighting between the chiefs Tareha and Wharemu in 1827 Duke provided protection for European residents and their property within his compound. Among his guests was the itinerant artist Augustus Earle.[496]

The Pakeha-Maori trader Hans Tapsell established his flax trading station at Maketu in the Bay of Plenty in 1830 at the invitation of the Te Arawa chiefs of Rotorua. Tapsell exchanged muskets, powder and assorted trade goods for flax while importing twelve great guns to enhance the defences of Maketu Pa. During Titore's campaign against the Ngaterangi people at Tauranga in 1832, Tapsell lent cannon "on trust" to the Ngapuhi invaders.[497]

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[494] Ballara, A "Te Wharepouri, Te Kakopi-o-te-rangi." Cited in *The Dictionary of New Zealand Biography.* p 521.

[495] Cowan, J. p 37

[496] Earle, A. p 112.

[497] Williams, H. p 286.

Ships Carronade, Te Arawa, Maketu

This twelve pound carronade stands on the foreshore at Maketu. It is one of a battery of twelve Arawa guns under the captaincy of the Pakeha-Maori traders Hans Tapsell. This was one of the most formidable gun batteries of the musket war period. Each gun was kept loaded with one roundshot and 500 musket balls.[498]

The battery itself was sited on Maketu Pa, and guarded the approaches to the pa and the Kaituna River. For many years the battery was effective in deterring attacks by neighbouring tribes who coveted the valuable flaxlands at Maketu. The Maketu carronade was fired regularly at tangihana, weddings and public celebrations well into the early twentieth century.[499]

Thomas McDonell, a veteran naval officer purchased the European shipyard known as the Horeke on the Hokianga River in 1831. under the protection of his patron Te Taonui, McDonnel was later appointed British resident at Hokianga in 1835. The Reverend James Butler recorded;

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[498] Matheson, A. p 3.
[499] Matheson, A. p 7.

"He owned a large tract of broken country by virtue of purchase: he had built two vessels in his yard and he lived in a good house with gardens around it of some pretensions. Mounted on an elevation, he had several pieces of cannon and the booming of their report would sometimes echo along the surrounding hills."[500]

McDonell astutely exploited the respect Maori accorded the great guns and their possessors by steadily increasing the number of heavy guns in his battery. His son was to recall in later years:

"During the war with Hone Heke in 1845-46 my father, Captain McDonnell, R.N. fortified Te Horeke, then our homestead, and had two 32-pounders dragged up to the top or Ka-rea-ki-runga and placed in position there, and at one time we had a garrison of 300 river natives, whom he partially armed with flint lock Tower muskets, and no end of ball cartridge; and there is no doubt the news of our garrison, and one upper and lower battery of two 32-pounders, seventeen pieces of cannon lower down, consisting of 18-pound carronades and long sixes, had a grand moral effect on those natives who were hesitating which side to join."[501]

Elsewhere, new European arrivals seeking to establish their credibility as traders and men of mana among the tribes found it necessary to possess at least one heavy gun. Single ships guns were sufficient to enhance the mana of both parties and dissuade or defeat enemy attacks. At Poverty Bay about 1833, Captain TW Harris acting as a flax agent for the Sydney firm Montifore and Company employed a single cannon to assist his Ngati Porou protectors in an inter-tribal battle. Harris is also reputed to have employed this gun to assist Maori allies capture a pa in the Waikato. The firing of the piece by Harris enabled the defenders to successfully rush the palisades.[502] A ships gun assumed to belong to Captain Harris was recovered from the sea bed near Tuamotu Island in 1925 but this piece has since been lost.

At Kawhia during 1834 the flax trader St John imported a 12 pound gun to help secure his position among Waikato Maori.[503] At the Hokianga in 1833, the Pakeha-Maori traders and adventurers Frederick Maning and Thomas Kelly were given land a small house at Kohukohu by their protector the Chief Wharepapa.[504]

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[500] Ramsden, E. *Busby of Waitangi*. (Wellington, 1942) p 117.
[501] Best, E. *The Pa Maori*. (Wellington, 1927) p 169.
[502] McKay, J.A. p 353.
[503] St John. p 3.
[504] Colquhoun, D. "Maning, Frederick Edward." Cited in *The Dictionary of New Zealand Biography 1769-1869*. Vol 1 (Wellington, 1990), p 265.

Maning and Kelly were subsequently robbed by a neighbouring chief, but in an incident that saw their great gun incorporated into the process of taua muru, increased their standing among their Te Ihutai hosts by employing their great gun to fire on the plunderers as they escaped by canoe.[505] Maning in colourful style describes the incident.

> "Load the gun!' cried the Sailor [Kelly]. (there was a 9lb carronade on the cliff before the house, overlooking the river). A cartridge was soon found and a shot and the gun loaded. "Slew her a little," cried my now commander; "fetch a fire stick." "Aye, aye, sir" (from self). "Wait a little; that will do - Fire!" - (in a voice as if ordering the discharge of the whole broadside of a three-decker). Bang! The elevation was perfectly correct. The shot struck the water at exactly the right distance, and only a few feet to one side. A very few feet more to the right and the shot would have entered the stern of the canoe, and, as she was end on to us, would have killed half the people in her. A miss, however, is a good as a mile off. The canoe disappeared behind a point, and there we were with an army of armed friends around us, who, by making great expedition, had managed to come exactly in time to be too late. This was a taua muru (a robbing expedition) in revenge for the leader having been cleaned out by our chief, which gave them the right to rob any one connected with, related to, or under the protection of, our chief aforesaid, provided always that they were able. We, on the other hand, had the clear right to kill any of the robbers, which would then have given them the right to kill us, but until we killed some of them, it would not have been "correct" for them to have taken life, so they managed the thing neatly, so that they should have no occasion to do so. The whole proceeding was unobjectionable in every respect, and tika (correct). Had we put in our nine-pound shot at the stern of their canoe, it would have been correct also, but as we were not able we had no right whatever to complain.[506]"

[505] Maning, F. pp 72 - 73.
[506] Maning, F. pp 72 - 73.

Light Cannon, Tauranga Domain

The Mission Gun Batteries

The late 1820's and the decade of the 1830's were very much an age of artillery in New Zealand. Maori chiefs seeking to advance or preserve their mana and Pakeha men of property seeking to protect or increase their possessions owned at least one great gun. The importance of heavy guns as a source of mana and a means of discouraging, abuse, threats of violence and the depredations of opportunist warrior bands were not lost on the missionaries. The missionaries after 1820 counted several retired military men among their number including the Rev. Henry Williams, a former naval officer and veteran of the American and Napoleonic Wars.

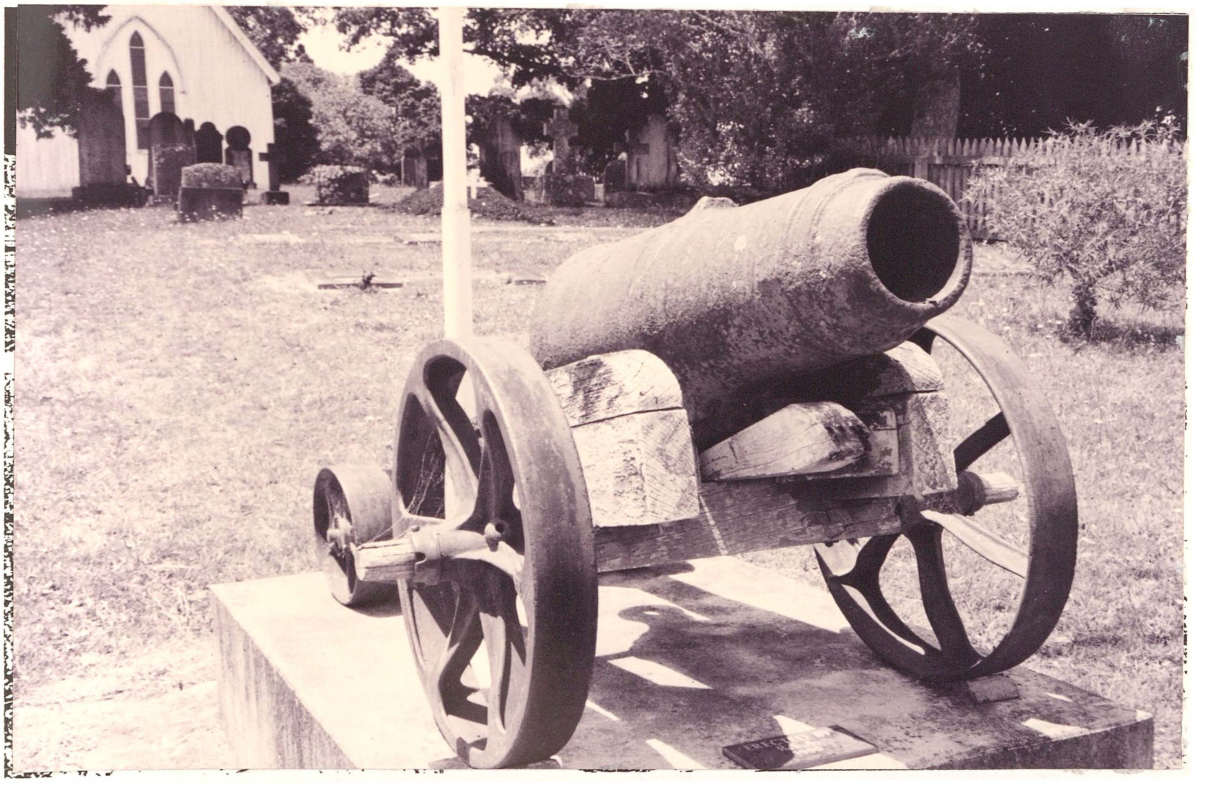
These men took a more pragmatic approach to their vocation than many of their predecessors and subsequently, batteries of heavy guns were mounted at the Church Missionary Society Stations at Paihia and Waimate in the Bay of Islands and at Te Kopua in the Waikato.

The mission gun batteries and the firing of mission guns during religious festivities, ostensibly for show and for enhancing such occasions served not only to deter potential looting forays by warriors but were also devices by which Maori could be reminded of the military power and technological superiority of European culture. The Wesleyan Missionaries at Whangaroa omitted to protect their station with heavy guns and in 1827 their Whangaroa Mission was sacked and burned by Maori. Missionary gun batteries, while never fired in anger, were, nevertheless, capable of causing casualties and the missionary George Clarke was later to recall one such incident from his childhood:

> "In the end of 1828 the first missionary Huihanga or gathering of their adherents was held at Paihia. The missionaries of all the stations, their families and their Maori followers all came together and had examinations and services and kept festival. I remember because the Reverend Henry Williams who had fought gallantly at Copenhagen on board the *Endymion* when she took the *President*, an old navy salt, had planted four carronades at the back of the station for show, not for defence and I was frightened out of my little wits by the banging of their guns over my head in honour of the meeting.

> The noise ended in grief for a young Englishman in his eagerness to keep the guns going, loaded before the remains of the old cartridge were cleared out, and he and his ramrod were blown down the hill, losing some of his fingers, burning his face, temporarily blinding his eyes and suffering other bodily dilapidation."[507]

The missionary gun batteries were to provide Maori with a ready source of artillery in their later conflicts with British forces. At the siege of Oheawai during the Northern War of 1845, Ngapuhi under Hone Heke and Kawiti mounted four great guns in their defences of the pa. One of these guns was a nine pound carronade "which the Maoris commandeered from the Waimate Mission Station."[508] Similarly the two great guns comprising the Kingite artillery mounted at Paterangi Pa on the upper Waikato River in 1863 had been commandeered by Maori from the old mission station at Te Kopua, in anticipation of the British invasion [509]of the region.



Ships Carronade, Waimate North

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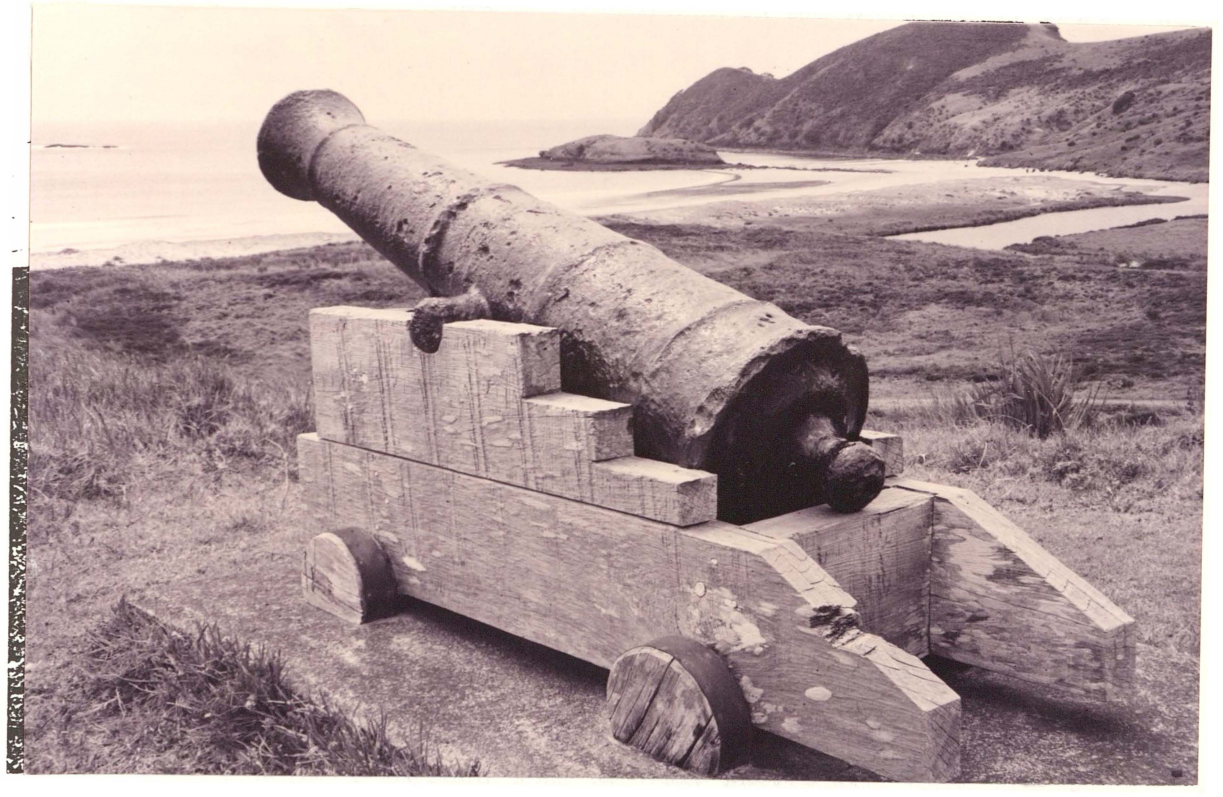
[507] Clarke, G. *Early Life In New Zealand.* (Hobart, 1903) pp 15, 16.
[508] Cowan, J. p 54.
[509] Cowan, J. p 52, 55.

This carronade is believed to have been ballast in the hulk of a vessel used to store grog for the drinking dens at Russell .[510] Later recovered from the shingle on the Russell Waterfront it was transported to Waimate North. It has been described as "just an interesting relic of the past" which has no military significance.[511] Nevertheless, the presence of the gun at Waimate North, a mission station with its own gun battery during the 1830's seems appropriate.



Ship's Cannon. Ngati Kuri, Spirits Bay, Northland.

Located among Ngati Kuri grave sites at Spirits Bay, this ancestral gun was reclaimed by the tribe from a European resident at Mill Bay, Mangonui during the 1940's. The cannon was an antique piece long before it was traded to Maori. It has distinctive features indicating manufacture in the early to mid eighteenth century. The gun sat at Te Hapua until the 1960's, when it was dragged overland by horse teams to Spirits Bay.

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[510] Northern Advocate 5 September 1987.
[511] Northern Advocate 6 September 1987.

Chapter Nine

TRIBAL GUNS, TRIBAL GUNNERS

The Carronades

The heavy guns most commonly employed by the tribal gunners in warfare were ship's cannon and carronades, with the latter type predominating and among the 20 pieces surviving today. Both types are referred to in the literature as ship's guns, heavy guns, carriage guns, great guns or simply pieces. The carronades were distinctive, squat, short barrelled muzzle loaders of large calibre. The length of the bore was the same size throughout, taper bored guns having fallen out of favour with the Royal Navy.[512] The carronades were produced initially for Royal Navy vessels in the late eighteenth century and were cast in the great foundry at Carron in Scotland. The naval guns whether carronades or cannon were classified according to the weight of the cast iron balls they fired with calibre for carronades varying from six pounds to sixty eight pounds. The surviving tribal carronades range from six pounders to twenty four pounders but most are nine pound and twelve pound weapons. The latter two were the calibres employed extensively on Maori amphibious expeditions.

The carronades were first adopted by the Royal Navy in 1779 and were additionally described as "quick firers, easy to handle in close range fighting between shipping".[513] Naval gun crews referred to their carronades as 'smashers' or 'devil guns' for cannon shot striking a wooden ship at what passed for high velocity in the nineteenth century, (about four hundred metres per second) punched a fairly clean hole with few splinters. A shot from a carronade, however, striking at a much lower velocity, had a much greater smashing effect generating more splinters and causing more wounds.[514] On conventionally armed ships of the Royal Navy, the carronades were usually installed on the forecastle and quarter decks as anti-personnel

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[512] Clowes, W.L. *The Royal Navy. A History from the Earliest Times to the Present.* Vol 5 (London, 1900), p 554.

[513] Marcus, G.L. *A Naval History of England. The Formative Centuries.* (London, 1961) p. 346.

[514] Ruffell, W. L. Notes *Ordnance at the Auckland Institute and Museum. Part 1 : The Carronades.* pp 2 - 3.

weapons.[515] Some ships were later armed exclusively with carronades - a dangerous practice, as such ships were vulnerable to any vessel choosing to fight at long range.[516]

The preference for carronades by tribal chiefs and gunners was founded on the powder efficiency of these guns. Requiring only small charges of powder, the carronades could be made shorter and lighter than conventional ship's cannon of equivalent calibre.[517] With a twelve pound carronade, Maori gunners could achieve a range of one hundred yards (918 metres) at an elevation of five degrees with a one pound propellant charge. A twelve pound cannon would require a three and a half pound charge (One kg 132.5 gms) and would achieve its maximum range of 1800 yards at six degree elevation. These carronades generally had a calibre (barrel width) of 4.52 inches.[518] The great twenty-four pound Waingaro carronade (calibre 5.68 inches) with a two pound charge (907 gms) would have achieved a range of 1150 yards or 1052 metres at five degree elevation while a twenty-four pound cannon with four to six pound charge achieved 2600 yards at ten degree elevation.[519] The smaller powder charges enabled windage or blowby to be decreased which increased accuracy and efficiency.[520] Most importantly, the carronades were cheaper and more plentiful than cannon in New Zealand as they cost less to make in the foundries. Consequently, they were also very popular with commercial shipping in the period.

Additional advantages of the carronade for the Maori gunners were the cup shaped muzzle and short barrel which facilitated loading and enabled rapid reloading. The carronades were mounted on the great canoes and within fortifications on carriages with iron or wooden wheels. These carriages were supplied with the gun or produced and mounted locally, particularly when there were European sawyers available.[521] The short barrelled carronades needed to be carefully mounted as they were easily upset on firing and could be out of action for the remainder of the battle. The New Zealand carronades were of the trunnioned variety. These trunnions or side arms were used to strap or bolt down the piece to the gun carriage. All New Zealand

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[515] Masefield, J. *Sealife in Nelson's Time.* (London, 1972) p 20.
[516] Ruffell, W. p 3.
[517] Masefield, J. p 19. Ruffell, W. L p 3.
[518] Ruffell, W. p 4.
[519] Ruffell, W. p 4.
[520] Windage was the process by which too much propellant gas escaped past the projectile instead of propelling it.
[521] Markham, E. p 38.

carronades have a loop beneath the gun, used to attach the piece to the carriage by a rope or metal pin, at the same time permitting the gun to be elevated or depressed - the adjustment being dependant on the calibre of the gun and the distance from the target.

Carronades were classified according to the weight of the cast iron round shot they fired. Calibres of carronades examined were rated according to this table dated 1850.

"6 - pr	3.6 inches	24 - pr	5.68 inches
12 - pr	4.62 inches	32 - pr	6.25 inches
18 - pr	5.16 inches	42 - pr	6.79 inches
		68 - pr	8.05 inches"[522]

There was some variation in calibre of 19th century carronades and figures do not apply to cannon, the calibre of which were somewhat greater than carronades.[523]

Ships Carronade, Monmouth Redoubt, Tauranga

[522] Ruffel, W. p 4.
[523] Ruffel, W. p 4.

The origins of this carronade were unknown to its Tauranga owner Captain A. C. Turner.[524] The piece was presented to the Borough Council to add interest to the redoubt after Captain Turner's death in 1914. The carronade appears to be a twelve pounder. It is a former naval gun stamped 1815 and bearing the cipher of George III. The Rev. Henry Williams records that heavy guns were employed by the Ngai Te Rangi people at Otumoetai Pa, Tauranga in a counter bombardment against Ngapuhi artillery under Ururoa on 6 March 1832.[525] This gun may be one of the many tribal carronades in the possession of Nga Te Rangi during the early 1830's.

The Cannon

A number of traditional, long barrelled cannon were employed by Maori during inter tribal battles in the Bay of Islands, Taranaki and Foveaux Strait regions. Many of these former naval guns had been cast in the great foundry at Elswick on Tyne. Cannon are referred to in the literature as carronades, long guns and by their weight as long sixes or long twelves, or simply, guns.

While cannon achieved a longer range than carronades of equivalent calibre, they required greater powder charges.[526] Long range gunnery, however, was rarely a consideration for Maori gunners who generally fired their great guns point blank. A crew of four normally worked large calibre cannon aboard ships of the period. During the siege of Otaka Pa at Ngamotu Taranaki by Waikato forces in 1832 the three light Te Ati Awa cannon were each operated by a crew of three.[527] The cannon employed by the Te Ati Awa gunners were of the trunnioned variety and conventionally mounted.

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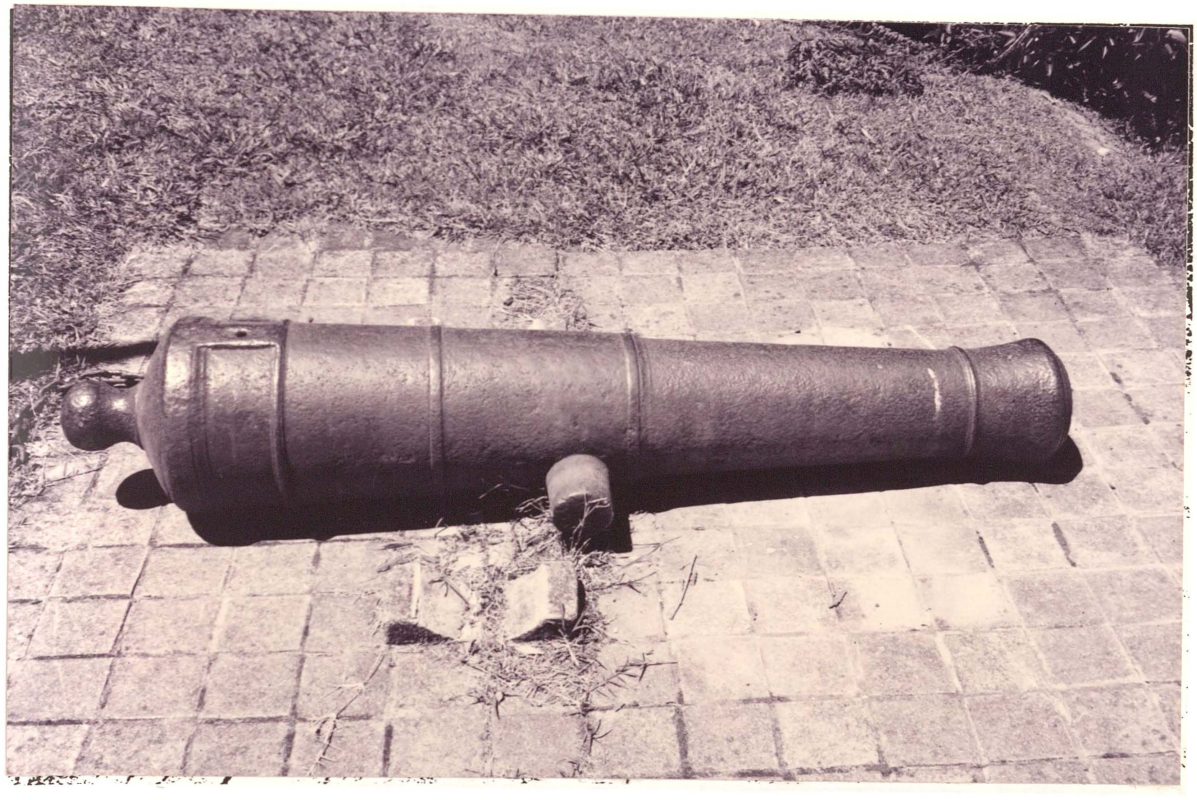
[524] Matheson, A. p 9.
[525] Williams, H. p 231.
[526] Masefield J. p 19.
[527] Polack, J. *Being a Narritive of Travels and Adventrues.* Vol 2, p 188.



Ships Cannon, Tauranga District Museum

Reputed to be part of the Arawa gun battery under Hans Tapsell at Maketu Pa, this cannon is currently on display at the Tauranga Historical Museum.

The practice of attributing every smooth bore cannon and carronade in the Tauranga District to the Maketu battery has inherent dangers. The former owner of the gun, Mr A. C. Burrows, in 1914 had no idea of the gun's origins[528] and the locations of five Tapsell guns recaptured by Arawa from Ngai te Rangi after the fall of Te Tumu Pa in 1836 have been largely accounted for.[529] The practice also ignores the numbers of tribal guns installed by Ngai te Rangi in their strongholds at Otumoetai, Maungatapu and Te Tumu and the gun trading activities of Gordon Brown and John Montefiore in the Tauranga region during the early 1830's.[530]

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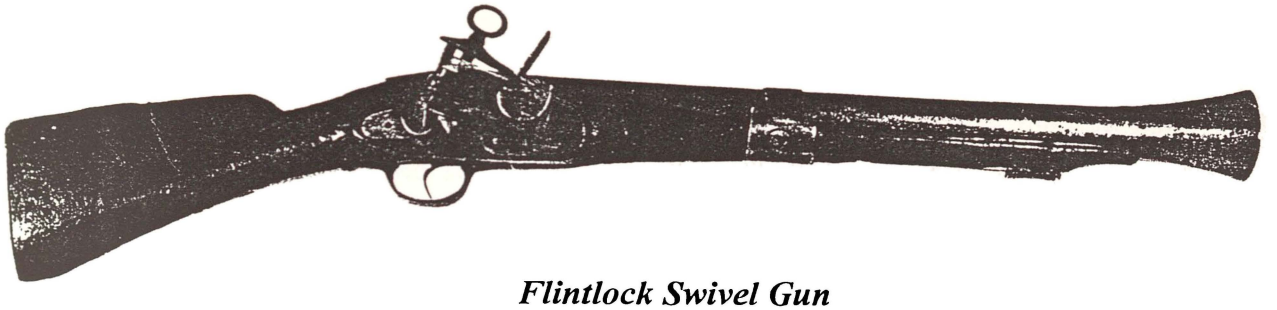
[528] Matheson, A. p 9.
[529] Matheson, A. p 9.
[530] Williams, H. pp 242, 286, 216.



Flintlock Swivel Gun
From Wilkinson, F. *The Worlds Great Guns.*

Joel Polack, trading at the Bay of Islands during the early 1830's states that swivel guns as well as cannon were keenly sought by the musket chiefs.[531] The swivel gun was a giant version of the naval blunderbuss and was mounted on a swivel so as to move horizontally and fire in any direction. Swivels are referred to in the literature as deck guns. These massive smooth bore weapons were designed to fire shattering volleys of iron or lead balls at close range. Swivel guns were incorporated into the defences of Maori fortifications in the period and were employed as bow guns on canoes engaged in riverine and naval warfare. Te Ati Awa at Otaka Pa, Taranaki named their swivel gun Pupoipoi or Jumping Gun.[532] With the typical British specimen weighing about 25 pounds, swivel guns were more portable than light cannon and carronades.

Great care was required in charging these weapons with powder. Swivels were easily overloaded and were prone to bursting. The Te Ati Awa swivel gun, Pupoipoi, at the Nga Motu siege, exploded when fired during at attacking Waikato forces. The crew of two was uninjured by the blast.[533]

The artillery chiefs of the Musket Wars did not see their great guns as supporting weapons, but as the most powerful arm in their offensive and defensive tactical plans. They sought lightweight, portable pieces for amphibious warfare, while the heavier guns were entrenched into the defences of pa. The preference for light mobile guns for amphibious expeditions coupled with shortages of powder and suitable projectiles were to prove significant factors in the failure of tribal gunners to overcome enemy strongholds by bombardment during the Musket Wars.

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[531] Polack, J. Vol 2, p 301.
[532] Kelly, L.G. *Tainui. The Story of Hotunoa and His Descendants.* (Wellington, 1949) p 425.
[533] Polack, J. Vol 2, p 315.

Proficiency

As the trickle of heavy guns into New Zealand during the 1810's and 1820's became a flood during the early 1830's, tribesmen were obliged to master methods of gunnery evolved over centuries of European warfare. The musket chiefs adopted this new western military technology with remarkable speed and thoroughness. The great gun and its side arms or related equipment compelled a degree of specialisation and skill, never previously seen in Maori warfare. Large, strong warriors will have been required to transport and operate this ordnance mastering in the process the skills of maintenance, pontooning and siting as well as the procedures for laying, loading and firing. These men were probably drawn from the ranks of the musket taua or from among Maori who had served as crew on European vessels and had some knowledge or experience with heavy guns..

The proficiency of a Maori gun crew in bringing their great gun into action in the field or against an enemy pa during the 1830's was of little value unless accompanied by experience and practical knowledge of its capabilities with different charges of powder and different ammunition. Some tribal gunners were determined to test the reliability and capabilities of their great guns, sometimes at considerable cost. Joel Polack observed "that in one or two instances" when proofing or test firing a newly acquired cannon, Maori gun crews rammed the barrels with extra charges of powder, shot and ball before discharging them. The consequence was "death or shocking mutilation ... which nevertheless has given no distaste to the popular feeling for playing and tampering with such dangerous weapons".[534]

There are no eyewitness accounts describing the steps taken by tribal gunners in loading and firing their great guns. The standard sequence for loading and firing smooth bore muzzle loaders during the early nineteenth century entailed five steps.

> "After firing, a scourer or cork screw like device was pushed down the barrel to scrape out the fouling from the bore. Secondly, a sponge soaked in water was pushed down the bore to extinguish sparks and to cool the barrel. If this was not done, a spark could prematurely ignite the new charge with disastrous results. A long thin spike was pushed down the touch hole to ensure it was clear and the canon was now ready for reloading. A charge of powder was pushed into the bore, either as loose powder or as a cartridge with powder wrapped in canvas, felt or paper. A wad of oakum yarn or felt

[534] Polack, J. *Manners and Customs of the New Zealanders.* pp 95-96.

was then rammed home on top of the powder and thumped into place. This was followed by a cannon ball and a second wad. If a cartridge was being used the chief gunner pierced the powder cartridge with a spike and poured a quantity of fine grained powder into the vent. The tip of a glowing piece of cord was touched to the powder in the vent to ignite the cannon."[535]

The tribal gunners took a very professional approach to their gunnery and probably adhered as closely to these procedures as circumstances permitted. On campaign, in remote locations and in difficult circumstances some procedures may have been modified or omitted altogether.

Ammunition

Maori gunners generally loaded their heavy guns with round shot or iron shot but throughout the period were plagued by shortages of this prized ammunition. The first use of a great gun in defensive warfare in the South can be traced to 1825 when roundshot was put to good effect by Ngaitahu gunners in the Foveaux Strait region when a hostile Ngati Mamoe canoe fleet passed by Ruapuke Island. The cannon purloined by Tuhawaiiki was brought to bear and after 'belching forth a few shots' the panic stricken Ngati Mamoe ran their canoes ashore. All members of their flotilla were subsequently captured and 'put to the sword'.[536]

Grapeshot in the form of canvas containers filled with small iron balls for anti-personnel purposes was widely available in the period. There is no evidence of this ammunition being used in an intertribal battle. The Ngati Awa chief Ngarara employed a substitute for grapeshot against Ngai Te Rangi warriors who had advanced south to Whakatane in 1829. A carronade taken from the *Haweis* and loaded to the muzzle with stones was fired into the ranks of the Ngai Te Rangi who subsequently returned to Tauranga "with great precipitation."[537]

Maori continued to be plagued by ammunition shortages after 1840 and continued to be innovative in their use of ammunition. The chief Mokoraka who

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[535] Clowes, W. L. p 577.
[536] Carrick, R.O. p 110.
[537] McNab, R. *Historical Records of New Zealand.* Vol 1, p 110.

captained one of Hone Heke's four great guns during the siege of Oheawai Pa by British forces in 1845, organised a party of warriors, who went at night to Kaikohe and returned with bullock chains. Mokoraraka filled his gun with powder and rammed it to the muzzle with pieces of chain.[538] During the British attack "while the men surged and struggled in front of the walls meeting the direct fire of the defenders from the loopholes, the gun in the bastion loaded with an old bullock chain was discharged at them, causing serious losses."[539]

During the British invasion of the Waikato in 1863 the tribal gunners in the Meremere trenches lacked suitable projectiles and subsequently loaded their three heavy guns "with pieces of iron chain and paoro weeti (pound weights) taken from the traders stores."[540] On 6th August the gunners fired a load of long iron nails at the *Avon* as it reconnoitred the trenches with General Cameron aboard. The shot furrowed the water astern of the gunboat. On 20th October the gunners bombarded the gunboat *Pioneer.* Most of the shots fell short. On 30th October however "a seven pound steelyard weight fired from the upper gun, a 24 pounder, penetrated the upper works of the gunboat and lodged in a cask of beef."[541]

In the complete absence of suitable ammunition, Maori attempted to make their own projectiles. In the fighting against Hau Hau warriors in the Bay of Plenty in 1865, a European punitive force was sent to Opotiki aboard the steamer *Huntress* and *H.M.S. Brisk.* In the fighting near the village "a rusty cannon, an old ship's gun was found emplaced and loaded near the beach, ready to greet the force, but the Hau Haus for some reason did not fire it. The projectile consisted of a large stone cut to shape and crammed into the muzzle, out of which the end was protruding."[542]

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[538] Buick, T.L. *New Zealand's First War.* (Wellington, 1926) p 117.
[539] Buick, T.L. p 117.
[540] Cowan, J. Vol 1, p 317.
[541] Cowan, J. Vol 1, p 319.
[542] Cowan, J. *The New Zealand Wars.* Vol 2, p 107.

Accuracy

The great guns were regarded as chiefly weapons and many chiefs became artillerymen clearly relishing the opportunity to personally discharge their own purepo, some chiefs acquiring considerable proficiency in the process. The Ngapuhi chief Moka especially was a heavy gun enthusiast. During the journey of the 1832 Ngapuhi artillery expedition to Tauranga he found a variety of reasons to fire his two great guns. Henry Williams found Mokas habit of saluting the dawn with cannon fire particularly irritating.[543]

In laying or aiming their great guns, Maori gunners like their European counterparts, relied on experience and upon the performance of their particular piece. While the great guns of the period had lines scribed on the barrel for sighting and elevation or tang sights, the practice of firing tribal guns 'point blank' at targets may have rendered the use of sights unnecessary in many instances. Nevertheless, during the siege of Oheawai Pa by British forces at the Bay of Islands in 1845, there were Maori known to be present among the defenders who could lay guns correctly.[544] Experienced Maori gunlayers were also present among the gun crews in the Kingite Trenches at Meremere in 1863.[545] Such men held important and envied positions in the tribes and their names were widely known. The Kingite forces also installed two great guns at Paterangi Pa on the upper Waikato in 1863. The gunner in charge was Te Retimana of Ngati Wairangi a hapu of Ngati Raukawa who had previous experience with the artillery at Meremere. His cannon were kept loaded with "heavy charges of powder and crammed with pieces of bullock chain (tini-kau) steelyard weights and scraps of iron". To Te Retimana's great disappointment the British did not attack Paterangi and his guns were never fired.[546]

An additional factor in achieving accuracy was the quality and quantity of the powder used. Carronades could be easily overloaded or underloaded, and Maori tended to overload their weapons with powder. Accuracy could be improved by preparing gunpowder cartridges of similar quality and weight though an elevation exceeded by just one degree could send a shot completely over the target.[547]

[543] Williams, H. p 218.
[544] Cowan, J. Vol 1, p 82.
[545] Cowan, J. Vol 1, p 317.
[546] Cowan, J. Vol 1, p 345.
[547] Marcus, G. J. p 329.

Maori gunners acquired knowledge of loading and firing procedures in the demonstration of the gun by European Pakeha-Maori traders[548] and by observing Royal Navy and civilian gun crews in practice.[549] Experience came from firing the great guns in peacetime ceremonies, and through practice when the availability of shot and powder permitted.[550]

At the Meremere trenches in 1863 the Kingite battery of three heavy guns was under the charge of Nganiho Tamaoho of Ngati Naho. James Cowan maintains that Tamaoho and his fellow gunners "were taught the art of loading, laying and firing the pieces by a European who lived in Maori country before the war. This was an old East India Company's gunner who was detained by the Kingites until he had trained the brown artillerymen".[551]

Light Cannon, Tauranga Domain

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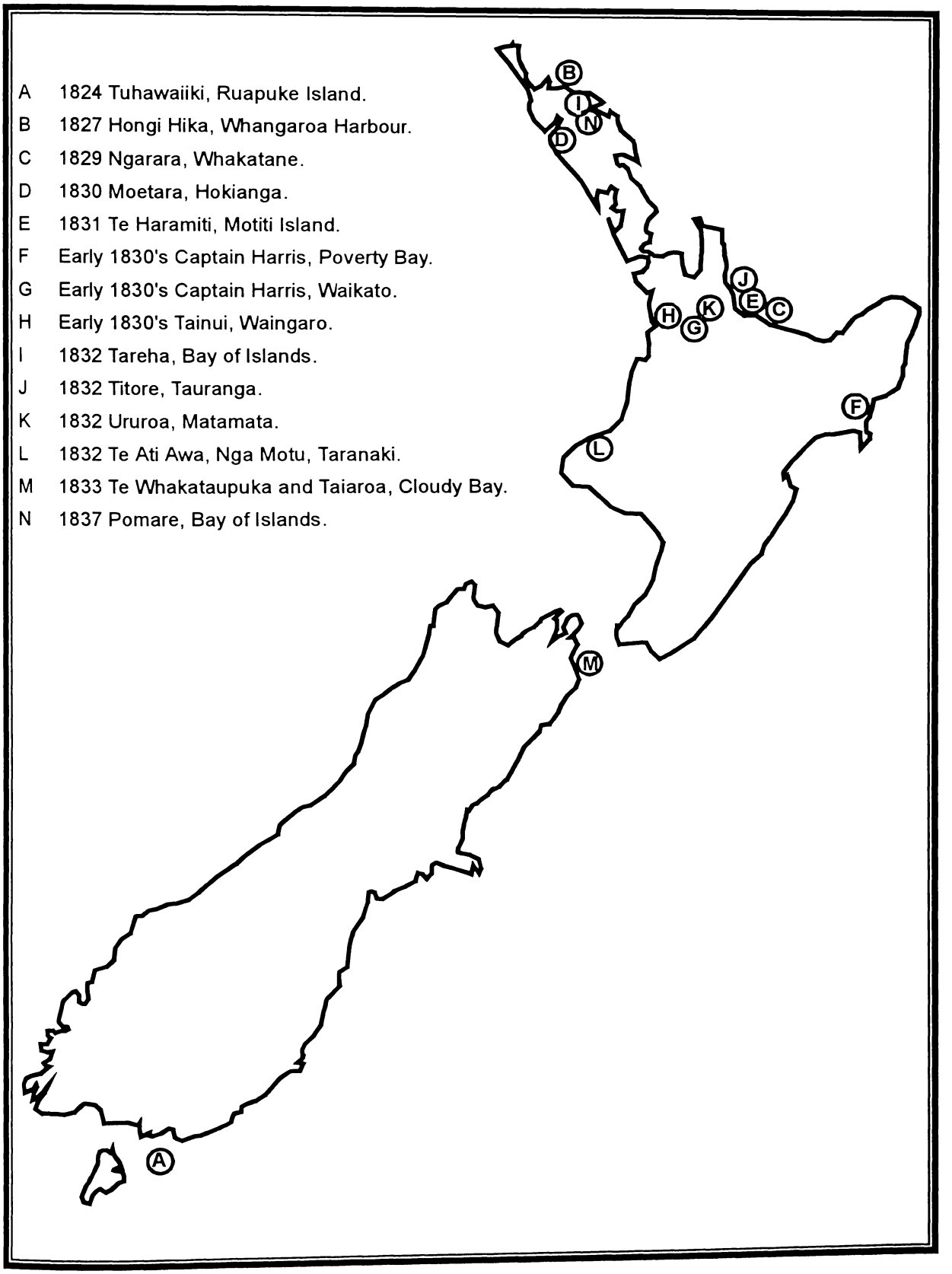
[548] Buick, T.L. p 215.
[549] Dumas, A. *Captain Marion.* (Christchurch, 1949) p 73.
[550] Marshall, W.B. *A Personal Narrative of Two Visits to New Zealand on HMS Alligator.* (London, 1836) pp 23 - 24.
[551] Cowan, J. Vol 1, p 317.

Locations of Inter-tribal Battles Featuring Artillery



Chapter Ten

ACCULTURATING THE GREAT GUNS

The power of the tribal gunners to produce thunder, fire, smoke, lightning and occasionally sudden death among their enemies raised the morale of warriors occupying defensive positions and taua engaged in predatory expeditions. Certainly enemy tribesmen considered the purepo monstrous, supernatural devices capable of mass destruction. Tribesmen generally ran in panic-stricken retreat when first subjected to artillery fire and later withdrew from the field or simply refrained from attacking fortified positions guarded by artillery. The Ngati Haua chief Te Waharoa delayed an attack by his musket taua on Arawa at Maketu Pa in 1836 until Hans Tapsell agreed not to load his twelve gun battery in return for the safety of his family.[552] In interfactional fighting between the chiefs Pomare and Titore at Otuihu in the Bay of Islands in 1837, the blast from one of Pomare's 18 pound carronades was sufficient to compel the withdrawal of Titore's attacking force of 700 warriors.[553]

The ability of their gunners to awaken these sleeping giants at will and to control the powerful forces contained within them gave tribes a sense of invincibility. Maori, however, never perceived their great guns exclusively as military weapons. As with their flintlock muskets, their guns were fired more often to enhance peacetime customs and rituals than in battle. By the early 1830's heavy guns at the Bay of Islands replaced the musket in saluting the arrival and departure of important chiefs and the arrival of European shipping. During the visit by *HMS Alligator* to the Bay in 1834, the chief Pomare at Otuihu Pa saluted the arrival of the vessel with shots from his two eighteen pounders. When departing the ship after his visit, Pomare informed the captain he expected similar courtesy and his journey ashore was subsequently accompanied by a salute from the *Alligator's* guns.[554]

Great guns were similarly acculturated into the tangihanga ceremonies, firing 'paura mamai' or sacred powder to generate noise and vast quantities of smoke during funeral rites. The Rev. Henry Williams noted additional uses for these weapons in relation to military affairs of Ngapuhi in the Bay of Islands in the early 1830's. Moka

[552] Stafford, D. M. p 240.
[553] Williams, M. p 205.
[554] Marshall, W. B. pp 23 - 24.

fired a number of rounds from his great guns when in the vicinity of the battlefield of Te Ika-a-ranga-nui where he had received a battle wound.[555] In 1832 various Nga Puhi hapu signalled their departure for the great expedition in Tauranga by firing their heavy guns.[556]

The Use of Great Guns for Theatrical Effect

Ships Carronade, Ngati Tamainui, Waingaro

This 24 pound carronade is located on the Waingaro Marae near Ngaruawahia. this monstrous gun is the largest of all the surviving tribal guns and would weigh approximately 1400 pounds or 640 kgs. This gun is in the possession of the Tainui hapu, Ngati Tamainui, Te Huaka and Te Kotara. The ancestral name of this piece has been lost.

The Waingaro carronade is one of an identical pair brought into the district through Port Waikato during the Musket Wars. Both pieces were mounted on a hill top pa to the west of Waingaro and were fired in at least one intertribal battle in this

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[555] Williams, H. p 219.
[556] Williams, H. p 211.

period. These ancestral guns were buried during the British invasion of the Waikato in 1863 and were only recovered in the early 1950's for the first visit by the Maori Queen to this marae.[557] The companion piece was later returned by the Waingaro people to their kin in the Port Waikato area but it has not been possible to locate this great gun to date. An interesting feature of this gun is that it is accompanied by several original cannon balls or iron shot. Tangata whenua recall prodigious efforts requiring five days and the need for many men and horses to drag this great gun over rough country from its original position to its present site.[558]

The possession of great guns of such large calibre had considerable appeal to Maori as they offered an opportunity for theatrical effect and many musket chiefs were noted for their fine sense of the dramatic. The missionaries described early New Zealand as a land of profound silences; the missionary J. W. Stack recalled:

> "The only sound which shook the stillness of the air with the same startling suddenness in my childhood, was the report of a musket fired as a signal that someone had just expired or it might be the sudden rending of the air by piercing cries from the mourners for the dead."[559]

In a land of silence, the roar of a great gun was frequently used to signal tribal anger over a wide area. Marianne Williams noted that during the dispute between the Ngapuhi chiefs Rewa and Wharerahi in 1837 "Rewa's gun went off at Kororareka as a sign that they were angry."[560] Henry Williams accompanying a Ngapuhi military expedition in 1832 records a dispute that arose between the leading chiefs over the plundering of a related tribe at Whangarei. As a consequence, each contingent camped under its own chief, about half a mile apart and during the night the chiefs loudly debated the issue from this distance. The chief Moka, who had initiated the dispute "was very angry. He talked till past midnight and frequently fired his piece to denote his anger more strongly."[561]

The great guns were fired to assert territorial rights and to remind passing shipping or travellers known to be passing through tribal territory of the identity and

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[557] Toea Rongo, *Interview at Waingaro Marae 1/9/96.*
[558] Toea Rongo.
[559] Stack, J. W. *Early Maoriland Adventures.* (Wellington, 1994) p 83.
[560] Williams, M. Journal 2 July 1837. Cited in Carleton, H. *The Life of H. Williams Archdeacon of Waimate.* Vol 1 (Auckland, 1874), p 205.
[561] Williams, H. p 218.

mana of the tribe. Henry Williams records that a great gun was fired from Te Tumu Pa when he sailed across the Bay of Plenty aboard the missionary vessel *Active* in February 1833.[562] Again, when Doctor Edward Shortland visited the Bay of Plenty in January 1843 two great guns were fired from Maketu Pa as he crossed the Kaituna River by canoe.[563]

Alternatively, great guns might be employed to add solemnity to important occasions. Joel Polack records the use of a great gun at Waimate North in the Bay of Islands in such a role; "At this place the natives assembled, and anxiously awaited the arrival of the brethren, to receive payment for their land (735 acres). They expressed satisfaction at what each received, and willingly put their signatures to the deeds which were to convey over to the new comers, the land that had descended to them for many generations. this purchase was remarkable as being the first inland settlement purchased by Europeans. At the conclusion, the chief's people discharged a round of artillery.[564]

One of the most dramatic deaths recorded during the inter-tribal Musket Wars was the suicide by cannon of the warrior Tiki Whenua on Motiti Island in the Bay of Plenty. A member of Te Haramiti's ill fated artillery expedition in 1831, Tiki Whenua, showed a fine appreciation of the dramatic and achieved immortality as the Ngapuhi position was overrun by the enemy. This description of the incident by Frederick Maning, a Pakeha Maori who accompanied his own tribe to battle is in typically colourful Maning style.

> "And then Tiki Whenua, still living, saw around him his dead and dying tribe. A handful of bleeding warriors still resisted a last and momentary struggle. he thought of the utu; it was great. He thought of the ruined remnant of the tribe at home, and then he remembered - horrid thought! - that ere next day's setting sun he and all the warriors of his tribe would be baked and eaten. (Tiki, my friend, thou art in trouble).
>
> A cannon was close at hand - a nine pound carronade. They had brought it in the canoes. Hurriedly he filled it half full of powder, seized a long firebrand, placed his breast to the cannon's mouth and fired with his own hand. Tiki Whenua, good - night!

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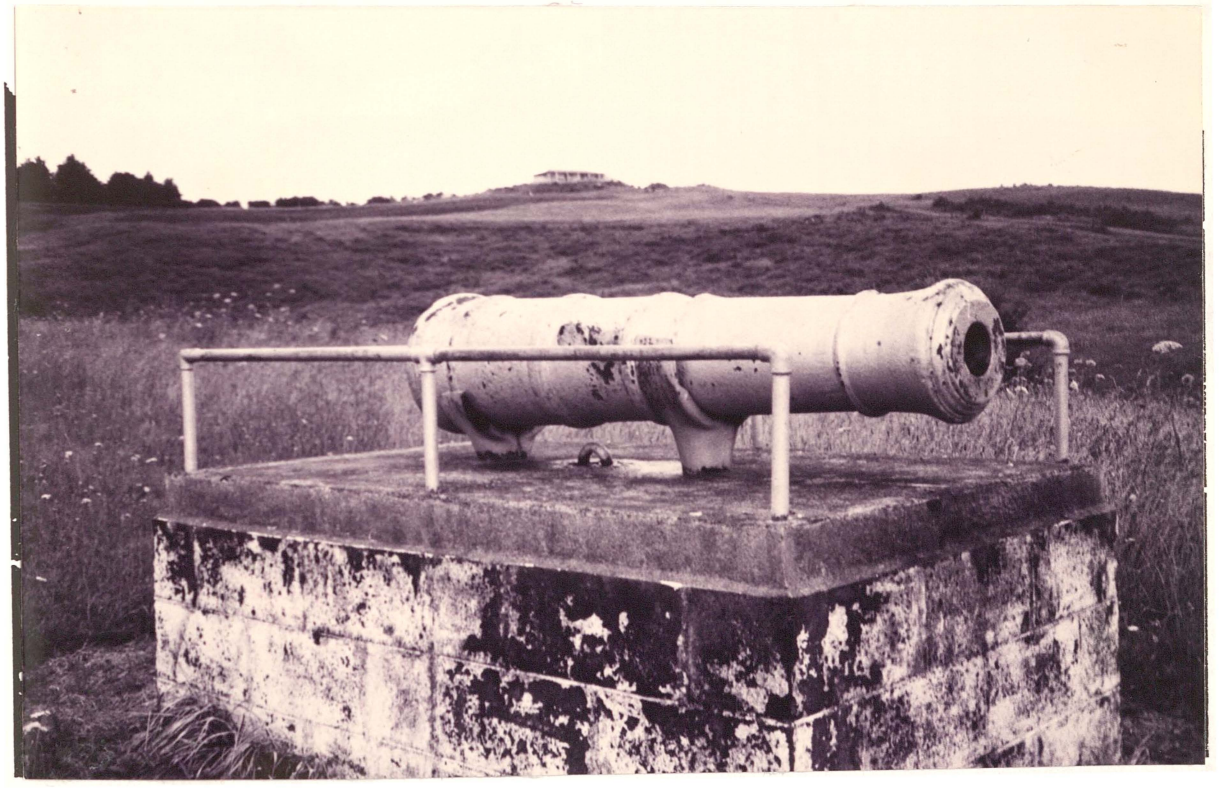
[562] Williams, H. p 257.
[563] Shortland, E. Journal, Auckland Public Library cited in Matheson, A. *Tapsells Big Guns.* p 4.
[564] Polack, J. Being a Narrative of Travels and Adventures. p 37.

Now I wonder, if Brutus had had such a thing as a nine pounder about him at Phillipi, whether he would have thought of using it in this way? I really don't think he would. I have never looked upon Brutus as anything of an original genius, but Tiki Whenua most certainly was. I don't think there is another instance of a man blowing himself from a gun - of course there are many examples of people blowing others from a cannon, but that is quite a different thing - any blockhead can do that. But the exit of Tiki Whenua has a smack of originality about it which I like, and so I have mentioned it here."[565]

The Use of Great Guns in Tangihanga Ceremonies



Ships Cannon, Ngati Hine, Waiomio

The Ngapuhi heavy gun depicted is a 6 pound ship's cannon named Kawiti after their great ancestor who fought against the British during the Northern War of 1845. This purepo is located in the cemetery of Ngati Hine and related subtribes at Waiomio near Kawakawa in the Bay of Islands District.

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[565] Maning, F. pp 168 - 169.

Ngati Hine tradition says that this was one of three tribal cannon fired at British troops under Colonel Despard during the siege of Ruapekapeka Pa in 1845. One of these guns was an 18 pounder damaged by British artillery during the siege and captured along with a smaller gun believed to have been a 4 pounder. The third gun, Kawiti, was carried from the fortification by its Maori crew when the British entered the defences.[566]

A second and more intriguing Ngati Hine account states that this third purepo was actually captured from the British in the early stages of the battle and carried off as a trophy of war. Kawiti's warriors did attack a British artillery position during the siege but were beaten back by a pro British warrior force under Tamati Waka Nene and it has not been possible to substantiate this claim in the contemporary literature.[567] As with most tribal guns, this piece was acculturated into the tangihanga ceremonies firing paura mamai or sacred powder during the funeral rites of important chiefs.

Great guns were perceived by Maori as possessing a life force of their own, being charged with dangerous supernatural qualities sufficient to cause widespread death among the living as well as ensuring safe passage for the manes or the spirits of dead chiefs by driving off the Atua or vengeful spirits.[568]

The frequency with which great guns were fired during the tangihanga of important personages and their location near the graves of such people in Maori cemeteries indicate that the purepo had a mana that could be transferred to the deceased, for the principal function of the tangihanga ceremony was to accord the deceased the prestige they had enjoyed in life.[569] Early visitors to New Zealand quickly recognised that the tangihanga was the crucial ceremony in Maori life. "There was nothing like it in scale or anything which placed the same obligations upon members of society."[570]

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[566] Hare Kirihi Reihana *Interview at Waiomio cemetary Kawakawa.* December 15, 1995.
[567] Hare Kirihi Reihana.
[568] Manning, p 219.
[569] Oppenheim, R.S. *Maori Death Customs.* (Wellington, 1973) p 13.
[570] Oppenheim, R.S. p 13.

With the acculturation of great guns, the tangihanga became a spectacular ceremonial that embodied and symbolised the major values of Maori culture,[571] the volleys of musket fire and the boom of heavy guns complementing the shrieks and lamentations of the women and the haka and speeches of the men.

The first heavy guns sighted by European witnesses in the possession of Ngapuhi were those employed by Maori attending the tangihanga of Muriwai, the Hokianga chief killed during interhapu fighting in 1828. The missionary James Stack records that on the 21st April, 1928; "...about 900 natives passed in their canoes from down the river, going up to Muriwai's Place. They had a very formidable appearance. The Horeke (European shipyard) saluted them with four great guns. The natives fired two great guns from their canoes as well as a Volley of Muskets, most of which were loaded with ball" [572]

The great guns continued to be brought to life as late as 1904 in the Rotorua district during the tangi of the great Arawa chief Petera Tukino Te Pukuatua, whose body was brought for burial near the Tama meeting house at Ohinemutu.[573] At Maketu in the Bay of Plenty Mr Jack Ford, a local resident, recalled that the Maketu carronade was fired, " whenever there was a big tangi on" up to the year 1914 and that during the tangi the gun was usually fired three or four times "To frighten off the Taipo."[574]

Ngati Hine say that their great gun Kawiti was brought to life and fired during tangihanga continuously throughout the nineteenth and twentieth centuries. On these occasions the cannon was fired three times, initially when the deceased was uplifted from Keretu Marae, secondly when the burial party reached the halfway point between the marae and gravesite and finally as the deceased as lowered into the ground.[575]

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[571] Oppenheim, R.S. p 13.
[572] *British Parliamentory Papers,* Reports from Select Committees on New Zealand with Minutes of Evidence, Appendix and Indices 1837-40, 1837-38, 680 Vol XXI, p 225.
[573] Matheson, A. p 9.
[574] Matheson, A. p 6.
[575] Hare Kirihi Reihana.

This tribal gun was finally brought to life in 1986 with the passing of "the last of the old people". These were the generation known to have been born in the nineteenth century. The roar of this gun was enhanced by packing the barrel with clay and paper before the piece was fired.[576]

Great Guns As A Source Of Terror and Coercion

Maori had long been fascinated by the destructive power of heavy guns and both feared and coveted these devices. From the late eighteenth century, coastal tribes were on the receiving end of cannon and carronade fire from an assortment of English Men O' War, French frigates, and commercial barques and brigantines. In 1772, Bay Of Islands Maori attacked and killed Marion Du Fresne, the French explorer and navigator, and many of his crew. The French author Alexander Dumas in his work 'Captain Marion' based on the notes of his ill fated expedition wrote of this early Maori fascination with heavy guns;

> "The objects of their greatest preoccupation, though they did all possible to conceal it, were the guns and the cannon, the captain had enjoined that no use of these weapons should be made before them, in order that at a given time, the effect might be more terrible. Seeing, however, that three years before several islanders had been killed, first by Cook, and afterwards by de Surville, and as these had been slain by musket shot or cannon shot, it was these thunders, now mute of which they had seen the frightful effect, which especially drew their notice.[577]

At the Bay of Islands in 1827 the French explorer, Dument D'Urville, aboard the French frigate *Astrolabe*, reported that "The missionaries assured me that we had nothing to fear from the natives who had an extraordinary fear of cannon".[578] In the same period Captain Kent aboard the vessel *Governor McQuarie*, one of the first trading ships to visit the Hokianga, filled two ship's guns with grapeshot and prepared to discharge them when he realised that visiting Maori were about to seize the ship.

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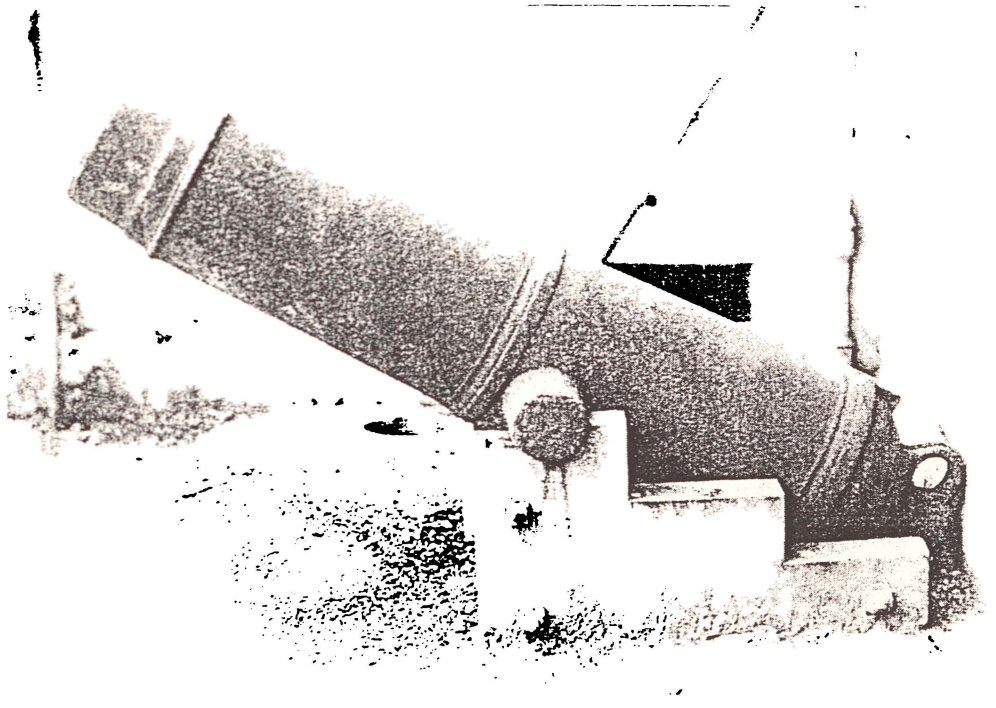
[576] Hare Kirihi Reihana.
[577] Dumas, A. p 73.
[578] Wright, O. *New Zealand 1826 - 1827.* (Wellington, 150) p 181.

The trader, Joel Polack, reported that in the moment preceding the attack, the daughter of the leading chief, realising that these objects were the dreaded purepo of legend,

> "Rushed before the guns and called out aloud to the hostile natives that their intentions had been discovered; she implored them to fly instantly, or not one would escape death by the discharge of na purepo or the great guns. The terrified assailants cleared off (the vessel) instantly by jumping into the river and swimming on shore, leaving their garments behind."[579]



The Horeke Carronade

Photo courtesy of the Alexander Turnbull Library

Part of Lieutenant Thomas McDonnell's battery of four heavy guns, this carronade was employed to salute the arrival of European shipping in the Hokianga River including the vessel carrying the Frenchman Baron De Thierry who hoped to establish a sovereign state in the Hokianga. Originally mounted at the Horeke or European shipyard, this piece is currently held by the Auckland Maritime Museum. A 24 pounder, it is in excellent condition for a great gun of this vintage. The date of manufacture is 1808 and the weight stamped on the breech is 12-2-11 (12 hundred weight, two quarters, 11 pounds). The gun is also stamped Horeke Hokianga.

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[579] Polack, J. Vol 2, pp 193 - 194

In the Bay and Hokianga regions, the possession of great guns became the yardstick by which the mana of leading chiefs and pakeha came to be measured. Many important Europeans including the Church missionary society leader, Henry Williams, employed heavy guns to extend their influence among Maori. Thomas McDonell, British resident at the Hokianga, regularly fired his battery of great guns to reinforce his mana and was effective in keeping order among the Maori and Europeans in his jurisdiction.[580] James Busby, British resident at the Bay of Islands had no heavy guns nor any alternative means to coerce the unruly or enforce his authority. Busby was ineffective in his role as kaiwhakariti or intermediary between Maori and Pakeha and was subsequently labelled "The man o'war without guns."[581]

The most awe inspiring figures in Maori eyes were the naval commanders of visiting French frigates and British men o' war, for they commanded floating gun batteries capable of great destruction. In 1826, the British Admiralty decided that their warship stationed at New South Wales should regularly visit New Zealand.[582] These vessels acted as deterrents against violence towards British subjects and settled a number of disputes between Maori and Pakeha without bloodshed. At the Bay in 1834, the Captain Lambert of *HMS Alligator* resolved a dispute between Thomas King and the chief Pomare, merely by turning his warship side on to Pomare's Pa at Otuihu.[583] French naval ships also showed their flag in support of their whaling fleet and French nationals such as de Thierry and Bishop Pompallier.

The Maori respect for the naval guns was reinforced in 1834 when *HMS Alligator* bombarded and destroyed two coastal pa in Taranaki. This action was retribution for the murder and kidnapping of survivors from the vessel *Harriet* wrecked on the coast.[584] Similarly, when the crew of the French whaler *Jean Bart* were killed by Maori at the Chathams severe reprisals were inflicted by the French corvette *L'Heroine.*[585]

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[580] Ramsden, E. p 117.
[581] Orange, C. "James Busby." Cited in *The Dictionary of New Zealand Biography.* Vol 1, p 61.
[582] Oliver, W. H. and Williams, B. R. (Eds) *The Oxford History of New Zealand.* (Wellington, 1981) p 43.
[583] Marshall, W. B. pp 23 - 25.
[584] Markham, E. pp 81 - 82.
[585] Oliver, W. H. p 43.

The exercising of ship's guns at the Bay remained a momentous occasion for Maori. As late as 1826 when Captain Dillon's ship *Research* discharged her guns which had been loaded for some time and were damp, Maori flocked from all parts of the Bay to ascertain the cause of firing.[586] Previously, on 11 May 1820, *HMS Dromedary* exercised her great guns against two floating water casks in a thinly disguised display of European military and technological might. Richard Cruise observed that Maori were surprised by the extent of the range achieved though on elderly chief remarked that when the ship returned to England, King George would be angry with her commander for wasting powder.[587]

The use of great guns to demonstrate European power and technological superiority was not restricted to seafarers in New Zealand waters. Captain Dalrymple of the ship *General Wellesley* employed his great guns indiscriminately in 1807 to kill and maim the inhabitants of an island near Tahiti. His actions give some insight into the mind set of many sea captains who cruised Pacific waters in this period.

> "Capn. Dalrymple accordingly was six weeks among the islands, and minutely explored nine of them, and was finally leaving them and coming past the end of one of them, called Prince of Wales's Island, about sunset, with a light breeze and the vessel under sail ; four or five hundred of the natives, composed of men, women and children, came down on the beach to look at the ship as she passed ; the captain, wantonly, barbarously, and without the least provocation whatever (as we had no communication with this island or the natives), fired five or six large guns amongst them, laden with grape shot.... he observed it was necessary to strike terror into the minds of these natives, and to convince them what power we possessed. Perhaps he would have fired more guns than the number already stated had not one of his sailors, while loading a gun which had not been spunged, had his arm blown off near the shoulder, which occasioned his death. The captain showed no inclination to cease firing till the sailor had lost his arm".[588]

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[586] Dillon, P. p 215.
[587] Cruise, R.A p 47.
[588] McNab, R. *Historical Records of New Zealand.* pp 422, 423.

Chapter Eleven

THE ARTILLERY CAMPAIGNS

As the inter-tribal arms race gathered momentum during the early 1830's the musket chiefs were increasingly attracted by the tactical novelty of heavy guns and the notion of possessing a weapon that could deliver firepower in superior volumes to enemy musketry. The *Tasmanian* on 28 January 1831 reported on this trend: " The chiefs now begin to take a wider range in their desire to obtain the most powerful and effectual instruments of death. They know the superiority of cannon over musketry, and they express an anxious desire to be furnished with these formidable engines, well knowing that the possessors of such will be enabled to obtain a greater quantity of their favourite food [human flesh] by the increased means thereby afforded them.[589]"

The Ngapuhi Campaigns

Having obtained their great guns or purepo, the northern musket chiefs, like all good generals, sought out opportunities to test their new technology in the field. Hongi Hika the greatest of the Ngapuhi tactical innovators, employed heavy guns in inter-tribal warfare in the year preceding his death by gunshot wound in 1828. Following the plundering and burning of the Wesleyen mission station at Whangaroa by Ngati Pou and their chief Te Pehi in January 1827, Hongi led a powerful canoe fleet to Whangaroa harbour to punish the offenders. Having acquired two of the Boyd's great guns, Hongi's gunners filled these pieces with stones and commenced to fire on Ngati Pou who had sought refuge in their pa. Hongi's forces carried the fortress by storm and killed most of the defenders.

The Rev Richard Davis, describing Hongi's deployment of heavy guns in this battle observed: "Being badly directed they produced no effect. This is the first time the New Zealanders have used cannon. If they can procure cannon they will bring them into use. But as cannon are too heavy for removal from place to place, they can only be employed on the defensive...."[590] Subsequent events reveal that Davis

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[589] Carrick, R.O. p 108.
[590] Davis, R. pp 42, 43.

underestimated the determination by Maori to test the capabilities of these powerful devices in offensive as well as defensive warfare.

During an interfactional fight on the Hokianga River in 1830, Moetara, the leading chief of Ngati Korokoro employed three heavy guns mounted on war canoes to carronade the fortified island of Motiti over a three day period. Commenting on this event in 1834, the English visitor Edward Markham wrote that "He [Moetara] has three 12 pounders and got some sawyers to mount them and build platforms in his war canoes.[591]" Heavy guns were fired by Ngapuhi hapu engaged in interfactional fighting during the Girl's War in the Bay in 1830 and during the dispute between Titore and Moka at Paihia in 1832[592].

Following a succession of Ngapuhi defeats in the south after the death of Hongi Hika, at least nine northern chiefs conceived the idea that musket taua, equipped with these new and powerful weapons, would be an expeditious way of redressing Ngapuhi's declining reputation. It is unlikely that these would-be conquerors had any inkling of what arduous enterprises their artillery expeditions would be.

In 1831 the Ngati Kuri tohunga Te Haramiti conducted a seaborne expedition against Ngai Te Rangi in the Bay of Plenty. Te Haramiti may have perceived his two nine-pound carronades as weapons that would break the growing deadlock in the inter-tribal balance of power. This deadlock was a consequence of the booming New Zealand flax trade and the procurement of large numbers of muskets by the major North Island tribes.

After initial successes against the inhabitants of Mercury and Mayor Islands, Te Haramiti's force of 240 warriors was surprised, overwhelmed and annihilated at Motiti Island.[593] At day-break an inter-tribal musket taua of some 1000 Ngai Te Rangi, Te Whakatohea and Ngati Haua, under that great tactician Te Waharoa, launched an attack from two directions according to some European accounts, before Ngapuhi could bring their guns to bear.[594] Te Whakatohea tradition, however, says that Ngapuhi were able to bring their purepo briefly into action before the gun crews were overrun.[595] Ngapuhi accounts state that the battle raged "from early morn til sun had

[591] Markham, E. p 38.
[592] Williams, H. p 232. p 281.
[593] Stafford, D.M. *Te Arawa.* (Wellington, 1967) pp 168 - 199.
[594] Smith, S.P. pp 434 - 435.

well declined" and [596]two iron shot later found on Motiti Island may originate from this battle.[597] "Old Te Haramiti sitting in the stern of his canoe and hearing the noise of conflict, began incantations to ensure the success of his people, when Ngai Te Rangi beat him to death with their fists rather than shed his sacred blood".[598] The annihilation of Te Haramitis 1831 artillery expedition was retributive carnage on a scale previously enjoyed only by Ngapuhi.

Te Haramiti's defeat and the loss of his guns illustrate the difficulty the tribal gunners had in bringing their artillery quickly into action during an open battle. While large musket taua numbering between 1000 and 2000 warriors were common at this time, their tactics in open battle were distinguished by fluidity and speed of movement, hence the Ngapuhi artillery, when tested for the first time, was found to be deficient in the face of traditional Maori generalship.

In 1832 the predatory raider Titore campaigned from the Bay of Islands to Tauranga with 800 warriors and a siege train of ten great guns, the largest concentration of Maori artillery assembled during the Musket Wars.

The Ngapuhi warriors and their heavy guns and munitions were transported southwards in a flotilla of eighty canoes and cutters. Henry Williams accompanied the expedition in the hope of arranging peace.[599]

Before leaving the Bay, Titore told the missionary William Williams that no great deeds had been accomplished by Ngapuhi and that "he wished to do what others had been able to do."[600] Titore envisaged that this newly-acquired arm of European military technology would enable him to emulate the feats of Hongi Hika and the great musket taua of the 1820's. He may also have conceived the idea that his great guns and musketeers together would act as a type of steamroller or Maori blitz-krieg that

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[595] Lyall, N.C. Te Whakatohea *Whakatane and District Society Historical Society Monograph.* No. 8 1974 p 44.
[596] Maning, F. pp 171-173.
[597] Matheson, A.H. Motiti Island Bay of Plenty, *Whakatane and District Historical Society Monograph.* No. 2 1979 p 6.
[598] Wilson, J. pp 40 - 41.
[599] Williams, H. p 210.
[600] Williams, W. *Christianity Among the New Zealanders.* (Southhampton, 1867) p 158.

would enable Ngapuhi to destroy the defences and defenders of the Ngai Te Rangi musket pa at Otumoetai.

On arrival at Tauranga, the Ngapuhi taua exchanged artillery fire with the defenders during the night and later obtained additional heavy guns and munitions from the trader, Hans Tapsell "on trust". During the transfer of this ordnance from Tapsell's schooner to the Ngapuhi canoes, Ngai Te Rangi, who had several carronades of their own at Otumoetai and Maungatapu Pa commenced a bombardment of Tapsell's schooner. Henry Williams, a former Royal Navy officer and veteran of the American and Napoleonic wars, noted drily how these shots fell short.[601]

As the siege of Otumoetai progressed, the schooner *New Zealander*, sympathetic to the Ngai Te Rangi cause, carronaded the Ngapuhi warriors on the shore. The northerners responded by mounting six carronades on their canoes and searching for the schooner in an attempt to engage it in a naval battle.[602] The concentration of heavy guns in the Tauranga area by both sides was remarkable and is indicative of the rapidly-changing nature of warfare in the 1830's.

When returning to the siege after a four week absence Henry Williams passed through the Ngapuhi camp and noted: "Many shook their heads signifying they were tired, and others complained of want of food. Their attempts had failed. They found that their opponents were not backward to meet them, and their great guns had been brought into action but of no use. They had dragged them close to the pa two days after we sailed for the Bay and were firing nearly the whole day without any effect, but had sustained some loss themselves, and the two guns belonging to Moka had nearly fallen into the enemy's hands."[603]

Henry Williams records that after the siege "They complained that their guns would not shoot straight for tho' they were frequently quite close, the shots flew wide from the object. This they attribute to the influence of the missionaries."[604]

Titore's position at Otumoetai became increasingly untenable due to shortages in shot and powder, and soon after the obstinate Ngai Te Rangi were reinforced by a

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[601] Williams, H. p 241.
[602] Williams, H. p 243.
[603] Williams, H. p 251.
[604] Williams, H. p 251.

contingent of Waikato warriors, Titore raised the siege, Titore's gunners were the first land-based gunners in New Zealand to experience the problems associated with breaching the defences of a musket pa.

Additionally, the heavy guns assembled by Ngapuhi may have been one of the largest concentrations of artillery ever assembled for a land battle in New Zealand, probably matching and perhaps exceeding General Cameron's artillery train of seventeen guns assembled for the siege of Gate Pa in the same district thirty-two years later. Titore's campaign is also notable for the use of tribal warriors in the role of gun crew, using the specialised tools and equipment necessary to transport artillery and overcome the various problems associated with operating artillery in the field.

While Titore's campaign proved an inclusive experiment by tribal gunners in siege warfare, in the context of the distances travelled and the obstacles overcome, it stands out as an extraordinary achievement in logistics.

Visiting Tauranga in 1831, Henry Williams reported that "each boy has two or three guns and men ten."[605] The Ngapuhi chiefs were understandably reluctant to throw their warriors into an assault over open ground against such heavily armed defenders in prepared defences. Ngapuhi intentions to concentrate on breaching the palisades of Otumoetai Pa and to engage in siege operations are indicated by the numbers of great guns and quantity of munitions accumulated for the 1832 campaign. Titore was known to possess at least one gun[606] and as expedition leader probably carried an artillery armament equivalent to or in excess of Ururoa's four great guns.[607] Hongi Hika's brother, Moka, transported two great guns[608] and the chiefs Rewa, Pi and Taraha at least one gun apiece.[609] Wharepoaka who had a number of great guns "in way of Rangihoua"[610] accompanied the expedition as did the chiefs Kawiti and Hone Heke who were to deploy artillery defensively against British forces and Oheawaii and Ruapekapeka Pas in 1845. With six ship's guns provided by the trader Hans Tapsell, the Ngapuhi artillery train at Otumoetai may well have exceeded 20 great guns.

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[605] Williams, H. p 207.
[606] Williams, H. p 207.
[607] Williams, H. p 231.
[608] Williams, H. p 219.
[609] Williams, H. pp 207, 228.
[610] Williams, H.

At Tauranga in 1832, Titore's taua combined with a force under the Ngapuhi chief Ururoa who had completed a successful campaign with four great guns against Ngati Haua and their allies in the Matamata region. Ururoa's campaign is known to have caused great destruction at Thames and Matamata but specifics on the expedition itself and the role played by his great guns are not available.[611]

Meanwhile, the Ngapuhi chiefs Te Tirarau and Pukerangi were conducting their own concurrent campaign against Waikato and their allies. In 1832 a Ngapuhi taua, three thousand strong, confronted a Waikato musket army of similar size at Waikato Heads. Both forces were reluctant to give battle but Ngapuhi by virtue of their more sophisticated commissariat, evolved over two decades of predatory raiding, compelled Waikato to withdraw. Ngapuhi subsequently devastated the lower Waikato region as far as Ngaruawahia.[612] Te Tirarau was known to possess at least one great gun in this period[613] and given the fiercely competitive nature of inter-hapu relations, and the pre-occupation by the Northern chiefs with artillery, at this time, it is likely that Pukerangi was similarly armed. Again, there are few details available on the role of the Ngapuhi artillery in this campaign.

The Ngaitahu Campaigns

The early 1830's mark a watershed in Maori military tactics with the commencement in both North and South Islands of amphibious artillery campaigns. The decisive meeting between a marauding musket taua and a taua armed with artillery, occurred near Banks Peninsula in 1832 when Te Rauparaha's inexorable southern advance was halted by the approach of Te Whakataupuka with two great guns. After storming the Ngaitahu fortification at Kaiapoi in early 1832, Te Rauparaha's powerful musket taua continued its advance down the east coast of the South Island. At Onawe Pa at Akaroa, the northern invaders were warned that the chief Te Whakataupuka was sailing to meet them and had arrived at Waiateruati with his great guns which were described as: "Pu huri whenua - guns that can turn over the

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[611] Williams, H.
[612] St John, L.C. p 19.
[613] Pickmere, N.P. *Whangarei, The Founding Years 1820 - 1880.* (Whangarei, 1986) p 116.

earth. These guns are unlike yours, if a shot lands among us it will burst and kill us all with just one shot. It is a gun so heavy that one man cannot lift it. when it fires the ground is rent as under by the shot."[614]

The threat posed by Te Whakataupuka's carronades, along with the approaching southern winter was sufficient to persuade Ngati Toa and their allies to commence their withdrawal to Kapiti Island, taking with them their booty and numerous prisoners of war.[615] Te Rauparaha never again attempted an invasion of the far south as Ngaitahu took the initiative, launching two amphibious artillery campaigns to reassert control over tribal lands and to seek utu against Ngati Toa and their allies for past defeats.

In the year 1833, Southern Ngaitahu chiefs Te Whakataupuka and Taiaroa launched their Taua nui or great war expedition against Te Rauparaha and his northern allies. The southerners advanced to the Cook Strait region in a flotilla of canoes and whaleboats transporting 700 fighting men equipped with the muskets and carronades obtained by Te Whakataupuka in trading with Peter Williams in 1832.[616] The taua on its journey north, killed Ngati Toa stragglers, plundered the Cloudy Bay whaling station allied to Te Rauparaha and killed Rangitane settlers at Queen Charlotte Sound. Ngaitahu almost captured Te Rauparaha whose small force sailed into an ambush with three canoes and a whaleboat. Te Rauparaha escaped and returned to the area with reinforcements in thirty canoes. Ngati Toa, however, withdrew to Kapiti Island when the Ngaitahu fleet advanced to fight.[617] Other accounts describe some skirmishing at sea in this confrontation[618] and William Wakefield's informants in 1840 believed that a great naval battle had taken place in the area known as Fighting Bay.[619] Specific details on the importance of Te Whakataupuka's ship's guns in this battle are not available.

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[614] Events as told by Paoroa Taki. Translated by TeAue Davis. Ngaitahu submission to Maori Appelate Court in regard to the cross claim by the Kuruhapo Waka Society and M. N. Sadd cited in Evison, H. *Te Wai Pounamu, The Greenstone Island* (Christchurch, 1989) p 62.

[615] McLintock, A. H. pp 89 - 90.

[616] Jones, F. G. *Historical Southland.* p 42.

[617] Evison, H. p68.

[618] Olssen, E. A. *History of Otago.* (Dunedin, 1984) p 25.

[619] Wakefield *Adventure in New Zealand.*

Te Whakataupuka's death from measles in 1835 did not deter Tuhawaiiki and Taiaroa from launching a further naval expedition to the north in which they hoped to lure Te Rauparaha's forces into a trap and destroy them with heavy gun fire. Taiaroa prepared his warriors for the campaign by personally journeying to Sydney in 1837 to acquire armaments.[620] The shore based whaler Captain Hempleman at Piraki recorded in 1839 how Ngaitahu announced their arrival at his station by firing their great guns.[621] Their fleet of fifteen whale boats carrying heavily armed warriors eventually passed to the north, after commandeering one of Hempleman's best boats.[622] At Wairau, Taiaroa's contingent landed to hunt down Rangitane settlers allied to Te Rauparaha. The southern fleet remained two months in the Cloudy Bay and Queen Charlotte Sounds region awaiting the appearance of the enemy.[623] Te Rauparaha, however, wisely remained on Kapiti, his island stronghold, and the Ngaitahu fleet returned to the south.

Taiaroa's whaleboats, carried cannon on expeditions of war during the 1830's[624] and a whaler watching the return of Tuhawaiiki's 1939 expedition, reported that two of the whaleboats were armed with cannon mounted in the bows.[625] Ship's guns provided Ngaitahu with the opportunity to meet the powerful forces under Te Rauparaha on equal terms. The Ngaitahu amphibious campaigns covering distances of some 1600 miles in open whaleboats and double canoes were, themselves, remarkable feats of seamanship. The threat posed by Ngaitahu naval expeditions to the Cook's Strait region saw the three principal Ngati Toa chiefs, Te Rauparaha at Kapiti Island, Te Rangihaeata at Mana Island and Nohorua at Kakapo Bay, each acquire a heavy gun of their own for defence by 1839.

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620 Oliver, S. Tataroa Te Matenga Cited in *Dictionary of New Zealand Biography.* p 145.

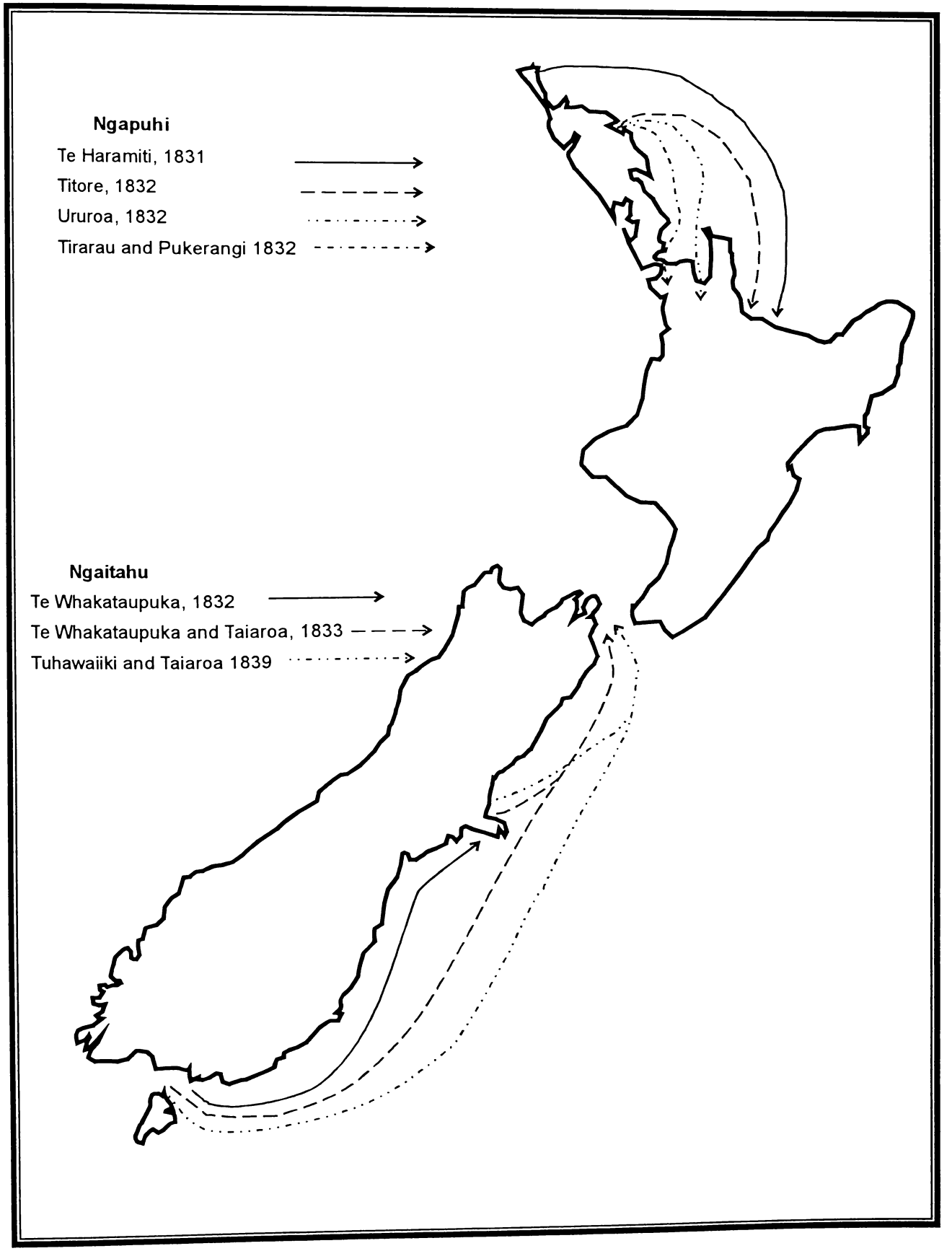
621 Anson, F.A. *The Piraki Log or Diary of Captain Hempleman.* (London, 1911) p 102.

622 Anson, F.A. p 103.

623 Elvy, W. J. *Kei Puta Te Wairau.* A *History of Marlborough in Maori Times.* (Chrischurch, 1957) p80.

624 Oliver, S. p 145.

625 Elvy, W. J. p 80.


Ngapuhi
Te Haramiti, 1831
Titore, 1832
Ururoa, 1832
Tirarau and Pukerangi 1832
Ngaitahu
Te Whakataupuka, 1832
Te Whakataupuka and Taiaroa, 1833
Tuhawaiiki and Taiaroa 1839

Transporting the Great Guns by Sea

The logistics of transporting great guns by water in New Zealand were considerable. Sea, river and weather conditions were important factors in determining the feasibility and conduct of campaigns. Waka and whaleboats now carried a considerable weight in ordnance, powder and ammunition on coastal and riverine expeditions. Henry Williams records during Titore's 1832 campaign how the Ngapuhi fleet proceeded only in the calmest conditions en route to Tauranga and how several canoes returning from this inconclusive campaign were lost at sea with all their occupants and presumably with some of the heavy guns.[626]

While attempts to shift cannon overland were prodigious undertakings, in naval expeditions ship's guns, Maori waka and whaleboats seemed made for each other. The weight of the cannon or carronade was easily accommodated in these vessels which were by design, load-bearing vehicles. Powder and shot similarly could be easily stowed in the spaces between the paddlers or rowers or by reducing the number of crew. The only difficulty the cannon imposed on the crew of a waka purepo was that of absorbing the recoil of a heavy gun within the vessel's confined dimensions. Since the greater part of the vessels were filled with paddlers or rowers, the cannon were invariably mounted on the bows.

Tribal gunners mounted a variety of heavy ordnance on their canoes, cutters and whaleboats. The larger canoes particularly were able to carry carronades capable of firing a twelve pound shot. Aboard the waka the great guns were conventionally mounted on carriages with iron wheels. These carriages or mountings were set on level platforms built into the hull. The chief Moetara at the Hokianga employed European sawyers for this purpose.[627]

The great guns were held to the wheeled carriages by metal straps. The gun and its carriage will have been secured to the vessel itself by flax rope clinched to the vessel's side with strong iron ringbolts. This arrangement prevented the gun from toppling from its mounting when the piece was fired.[628] Another rope will have been strapped around the iron ball or cascable at the rear of the gun and again secured by

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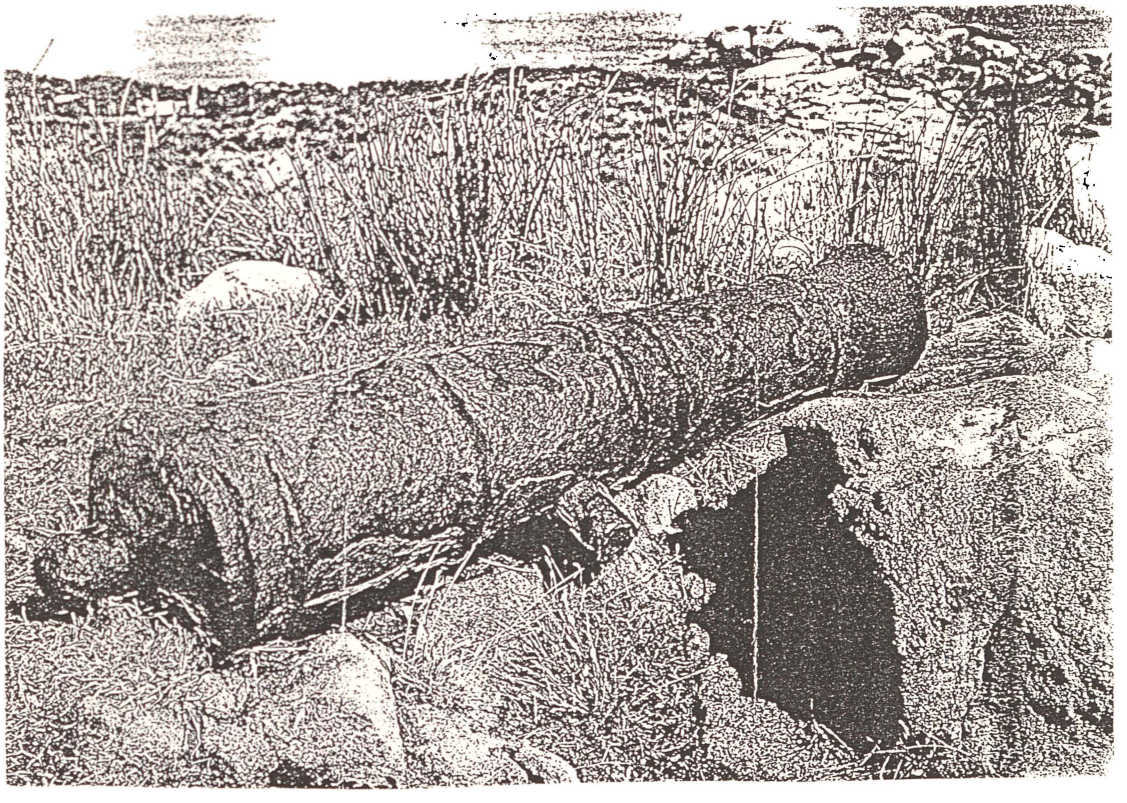
[626] Williams, H. p 250.
[627] Markham, E. p 38.
[628] Masefield, J. p 15.

strong ring bolts to the vessel's sides. This arrangement helped secure the gun against the rolling and pitching of the vessel and checked the recoil of the gun when it was fired. This rope was of such a length to enable the gun to run back sufficiently to permit re-loading by the gunners as evidenced in Moetara's three day naval bombardment of Motiti Island.[629] The barrels of the great guns were easily lowered or elevated by the insertion or withdrawal of wedges from the bed of the gun carriage.

Carronades not correctly bolted to full wooden carriages generally overturned on firing and without gun carriages or bracing the artillery pieces of the period could perform a dangerous backward somersault when fired.[630] The alacrity with which Titore's gunners were able to mount six heavy guns in their canoes and commence a search for a hostile schooner in the hope of engaging it in a naval battle at Tauranga suggests considerable confidence in and familiarity with the use of great guns in a naval role.[631]



Ships Cannon, Ngai Tahu, Ruapuke Island, Foveaux Strait
Photo courtesy of Southland Museum and Art Gallery.

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[629] Markham, E. p 38.
[630] Clowes, W. L. p 554. Gudgeon, T.W. *Reminiscences of the War in New Zealand* (Southern Reprints, 1886) p 95.
[631] Williams, H. p 247.

Tuhawaiiki (Bloody Jack) had mounted two twelve pound cannon in his stronghold on Ruapuke Island in Foveaux Strait by 1840. One tradition has it that these great guns were a gift from Governor Gipps during Tuhawaiiki's visit to New South Wales in 1840.[632] A second tradition says that the guns were a gift from the Reverend Henry Williams.[633] It is more likely that both guns were purchased by the chief during one of his many trips to Sydney.[634] Heavy guns of this calibre were carried on amphibious campaigns and were seen mounted on the bows of Tuhawaiiki's whaleboats during his 1839 campaign. One of Tuhawaiiki's cannon still guards the entrance to the harbour on Ruapuke Island.

The Significance of the Artillery Campaigns

The amphibious artillery campaigns of Ngapuhi and Ngaitahu signal the evolution of inter-tribal warfare to a stage where campaigns against well-armed and well-protected defenders now demanded a combination of financial muscle, efficient commissariat and high level of technical competence.

The artillery chiefs conceived their campaigns in terms of transporting their great guns by sea to remote locations, employing their superior firepower to defeat enemy forces at sea or on land, and returning to their base of operations with their hardware intact.

The campaigns of Titore and Tuhawaiiki particularly are distinguished by the vision and imagination of the participating chiefs and by the thoroughness of their planning and organisation. The Hokianga chief Pi took his own cutter, great gun and English gunner to the siege at Tauranga.[635] Other Ngapuhi chiefs persuaded Henry Williams to carry their war chests and provisions to Tauranga aboard the missionary vessel *Active*.[636] Titore and Ururoa's forces arrived at Tauranga together despite a separation of many months. Both chiefs were supplied in the field with additional great guns and munitions from Hans Tapsell as pre-arranged and with provisions from

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[632] *New Zealand's Heritage.* Vol 4, p 393.
[633] *New Zealand's Heritage.* p 711
[634] Jones, J.H. *Southland Explored.* (Wellington, 1979) 9 73.
[635] Williams, H. p 228.
[636] Williams, H. p 210.

sympathetic allies in the Bay of Plenty.[637] Tuhawaiiki took fifteen whaleboats on his 1839 expedition finding them more suitable for the conduct of long distance naval warfare than conventional waka.[638]

The amphibious artillery expeditions became increasingly sophisticated, taking on features normally associated with the conduct of amphibious warfare by European forces, through the campaigns evolved in a land relatively isolated from European military influences. Nevertheless, the transporting of great guns in whaleboats by Tuhawaiiki, Tararoa and Te Whakataupuka, the flying of battle flags from the sterns of 80 Ngapuhi canoes and cutters at Tauranga[639] and the grouping of individual warriors into gun crews gave the indigenous Maori artillery campaigns a distinctly European flavour. Ultimately, the transportation and deployment of great guns tactically on amphibious campaigns by Maori, was determined by the weight, associated equipment and the performance of the ordnance which was itself the paramount military weapon of the period and the product of European industrial and technological sophistication.

The veteran chiefs of the musket campaigns of the 1820's would have had no great difficulty in adjusting their experiences to the artillery campaigns of the 1830's. The pace of technological change at Murihuku in the south and at the Bay of Islands was consistent, with Europeanisation ushering in a period of constant change commencing with the influx of iron and steel cutting weapons before 1800, the introduction of muskets after 1800 and the acquisition of ship's guns during the late 1820's and early 1830's.

Musket chiefs incorporating artillery into predatory expeditions, were generally those who had adjusted quickly to the introduction of muskets and powder. Such men were also quick to see the potentialities of great guns in amphibious operations perceiving intuitively perhaps the capacity of iron shot to breach the palisades of enemy strongholds, and the capacity of grapeshot to destroy enemy forces encountered. The principles of loading and determining the force of shot by volume of powder were similar for both musket and ship's gun and the tribal musketeers of the 1820's and the tribal gunners of the 1830's were linked by this knowledge. Flintlock

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[637] Williams, H. p 242.
[638] Anson, F.A. p 103.
[639] Williams, H. p 231.

guns continued to be employed by individual warriors within the context of established offensive and defensive musket warfare, during the 1830's. The transportation, deployment and operation of the great guns, however, was made possible only by the co-operative labour, knowledge and skills of many and the use of much supporting technology.

Having transported their great guns to Tauranga in 1832, the Ngapuhi chiefs can only have been disappointed in their performance during the siege of Otumoetai Pa. The fundamental weakness of Titore's artillery lay not just in its inaccuracy, mediocre range and slow rate of fire, but in its vulnerability to forays by the Ngai Te Rangi defenders. The problem arose from attempts to use short range naval guns as artillery for a land based bombardment. If the gunners hauled their ordnance close enough to the palisades to fire iron shot at point blank range or to fire pebbles, the Maori substitute for grapeshot, they were likely to be mown down by musket fire. If the great guns remained out of range of musket fire, they could not be effective supporting weapons of attack. That Moka almost lost his two great guns to an enemy foray suggests a rapid advance by the enemy when these weapons had been fired and were vulnerable.[640] In light of this incident, the degree of support between musketeers and artillery at Otumoetai is open to question.

It is also uncertain whether the Ngapuhi chiefs at Otumoetai operated their great guns as individual and separate batteries along the enemy perimeter or if they concentrated their guns and their fire at one point in the palisades to create a break that could be rushed by the warriors. Regardless, the assortment of heavy guns, variations in the quantity and quality of powder and the variety of projectiles fired, meant that if the Ngapuhi gunners ever managed a uniform salvo the flight times of the projectiles would vary and the projectiles would not strike the same target area. Ngapuhi may have been conscious of these difficulties. Before commencing their bombardment of Otumoetai Pa, the chiefs had sought the expert advice of Henry Williams "My opinion required respecting the proper charge for their great guns, declined the honour."[641]

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[640] Williams, H. p 243.
[641] Williams, H. p 231.

The effectiveness of Titore's artillery was also limited by the technical qualities of the carronades themselves. The nine and twelve pounders were designed for close quarters exchanges between hostile shipping but when used as land-based artillery they were employed outside the role they were designed for.

Though the destructive power of the carronades against personnel was potentially awesome, the nine and twelve pound shot had limited penetrating ability against hardwood palisades[642] and were wildly inaccurate beyond two hundred yards. With hindsight we can see that the artillery arm of Titore's army was seriously undergunned. Thus he found it impossible to fight the kind of battle he really wanted.

The main problem surrounding these developments was that Titore's warriors in their role as artillerymen were working within the limits of the existing European military technology then available. Having brought this technology into action in New Zealand's first tribal artillery siege, there was a limited pool of information or expertise on which to draw.

While many Ngapuhi had served aboard the whaling vessels and were familiar with ship's guns and their operation, proficiency with artillery in this period was the consequence of regular practice with different charges and projectiles.[643] The exorbitant cost of powder, the shortage of suitable ammunition and the distinctive use of great guns by Maori to fire powder in tribal rituals, limited the development of long range gunnery skills among the tribal gunners.

While Ngaitahu incorporated artillery into their amphibious expeditions over a seven year period between 1832 and 1839, the Ngapuhi expeditions were only a feature of the year's 1831 and 1832. Titore's campaign was the last of the Northern artillery campaigns. The great guns of the Northern chiefs did not deliver the new era of easy victories anticipated. Thereafter the deployment of ship's guns in amphibious campaigns by Ngapuhi was abandoned.

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[642] During the Northern War of 1845 Colonel Despard was compelled to bring a 32 pound ship's gun to Oheawai to supplement two six pound and two twelve pound guns that were proving ineffective against the pallisades of Heke's pa .

[643] Masefield, J. pp 14 - 18.

If there is a trend in artillery campaigns during the inter-tribal Musket Wars it is towards an increase in the number rather than the calibre of the guns, with chiefs continuing to add additional pieces to their gun batteries as circumstances permitted.[644]

The second related trend was towards the use of artillery as the first auxiliary arm of predatory musket expeditions. However, the rapid decline in the predatory expeditions after 1833 (the consequence of war weariness and Christianity in the north) meant that the tribal artillery was never transformed from an auxiliary arm into the dominant weapon in inter-tribal battles.

A third trend arose from the ongoing struggle between attackers and defenders, as the proliferation of heavy guns meant that an anti-artillery concept had first to be thought out by those about to be besieged as artillery did its worst against defenders fighting above ground. The new system of fortification had to incorporate features that resisted bombardment and at the same time held the enemy musketeers at a distance. The solution lay in the continuing modification of the musket pa in the Bay of Plenty and the Bay of Islands, where the concentration of tribal artillery was greatest.

Twin Cannon, Kohukohu, Hokianga

[644] Polack, J. *Manners and Customs of the New Zealanders.* p 35.

Chapter Twelve

TRIBAL DEFENSIVE BATTERIES

Siting The Great Guns

Tribal Gunners deploying several heavy guns in a stronghold generally mounted their pieces on wheeled carriages sited in bastions located at the corners of the defences or at points along the outer wall. These bastions covered the approaches to the palisades and protected the defending musketeers. Fields of fire were provided by gunports cut into the palisading or into protective walls of earth or clay.

Three ship's guns and a swivel gun were employed by Te Atiawa during their defence of Nga Motu pa at Taranaki in 1832.[645] During the four week siege some 250 Te Atiawa and their eleven Pakeha-Maori fought off a succession of attacks by 1600 musket-armed Waikato under their paramount chief Te Whero-whero. While the defenders' swivel gun eventually burst, the gunners resorted to firing volleys of stones from their heavy guns as a substitute for grapeshot. Waikato were forced to abandon the field at the cost of some 350 dead.[646] This was an unusually high rate of casualties for combatants at this time and is directly attributable to the use of artillery by the defenders.

During the siege, Waikato employed a range of tactics to neutralise the effects of Ngati Awa's great guns. Waikato constructed taumaihi or musket towers overlooking the palisades. Constructed of timber and clay mixed with fern, the taumaihi were impervious to the artillery fire of the defenders[647]. The trenches Waikato dug close to the palisades to deliver musket fire and undermine the fence were beyond the reach of cannon.[648] The Pakeha Maori gunners stated that Waikato "did not give us much occasion to fire at them, always leaving us a wide berth."[649] Only when the attackers exposed their flanks to the artillery in their desperate final assaults did Waikato

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[645] Pollack, J. Vol 2, pp 301 -321.
[646] McNab, R. pp 38 - 39.
[647] McNab, R. p 47.
[648] McNab, R. p47.
[649] McNab, R. p55. Pollack, J. Vol 2, p 317.

sustain their heavy casualties. The Te Ati Awa guns were sited in gun ports cut into the palisades.

Dicky Barrett, Te Ati Awa, Taranaki

Currently housed in the Taranaki Museum this nine pound ship's cannon is named Dicky Barrett after Richard Barrett, the Pakeha-Maori trader who captained the gun during the siege of Otaka Pa, Nga Motu. Local tradition has it that Maori later buried the cannon in 1860 with the commencement of the New Zealand Wars in Taranaki in 1860.[650] The cannon was ploughed up by a farmer in Bell Block in April 1879.[651] A four pound Te Atiawa ship's cannon from the Nga Motu siege is also housed in the Taranaki Museum.

Tribes possessing a single great gun generally sited the piece to guard the only path or approach to their strongholds. The largest gun employed defensively at the Bay of Islands in an inter-tribal battle may have been the eighteen-pound monster seen guarding the approaches to Pomare's pa at Otuihu in the Bay of Islands.[652] This great gun saw action in 1837 when a large attacking force under Titore was driven off.

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[650] Scanlon, A.B. p 46.
[651] Scanlon, A.B. p 46.
[652] Marshall, W.B. p 23 - 24.

Mrs Marianne Williams recorded how her husband Henry narrowly escaped death from a roundshot fired from this gun when he tried to establish peace by standing between the two warring factions.[653]

Henry Williams' biographer, Hugh Carleton, describes the incident in detail:

> "Pomare, chief of Otuihu, had a great gun but no round shot. He applied to Captain Rhodes, a whaler captain, for some but was refused on the grounds that he might accidentally shoot Williams, whom he knew was going up to the pa. Pomare pleaded so hard that to get rid of him Rhodes gave him three. The next morning, Rhodes thought it wise to go up himself and try to keep the missionary out of danger. He found him beyond the range of musket-fire but standing in the line of fire from the great gun, and had some trouble in persuading him to move. Just after they did move, a shot hit the ground where they had been standing. Williams exclaimed, "Some rascal has been supplying them with round-shot!" Presuming that Pomare had no shot left, Williams wanted to return to his former stand, but Rhodes managed to detain him until Pomare had fired another two shots. "Then", said Captain Rhodes, "knowing that there was not another shot in the locker, I walked forward as if I were the bravest man in creation."[654]

Williams appears to have had a charmed life. Intervening in an interfactional fight at the Bay during the Girls' War of 1830 he had already narrowly escaped being struck by a roundshot from a tribal cannon.[655]

John Atkins, who alone survived the massacre of the crew of the *Haweis* at Whakatane in 1829 later described how Ngarara the Ngati Awa chief deployed his newly acquired battery of carronades from a position that provided protection for the gunners.

> "They built a clay bank about four feet high on the side of the river at the foot of their pa, where they mounted our cannonades and swivels, and in conscious security awaited with impatience the dawn of the following day ... By this time the enemy were on the opposite side of the river and had commenced a brisk fire, which was well returned by the assailed. Shortly after this, I heard the report of one of our cannons, when a song of joy was raised by the defenders, for the discharge of this gun had produced so much

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[653] Williams, M. Journal Cited in Carleton, H. *The Life of Henry Williams Archdeacon of Waimate.* (Auckland, 1962) p 205.

[654] Carleton, H. p 72.

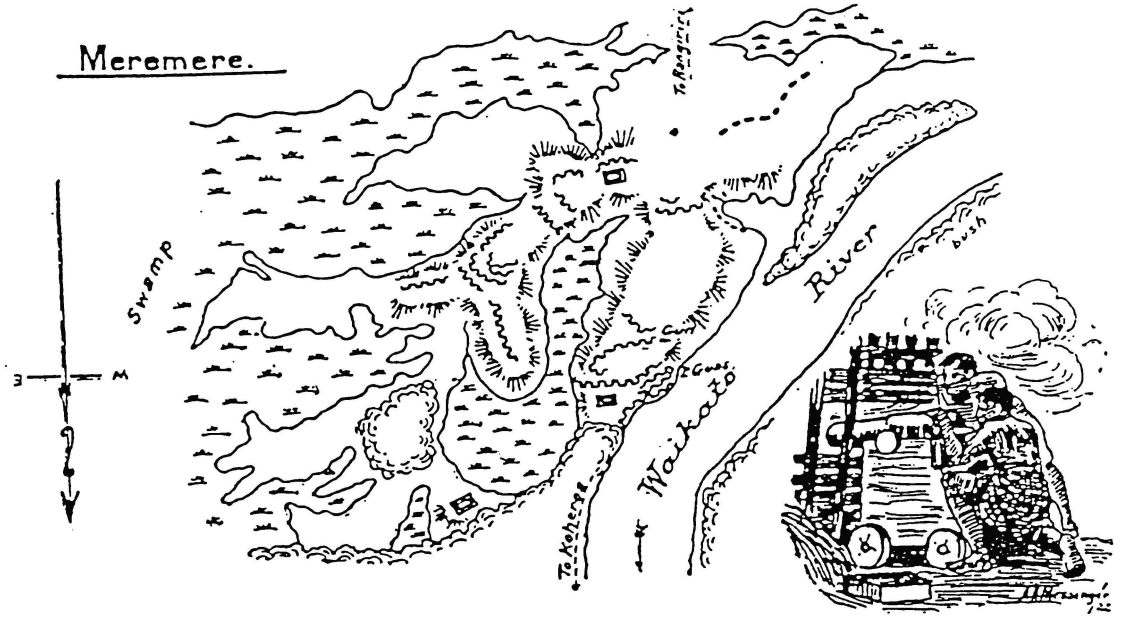
[655] Carleton, H. p 79.

consternation among the enemy that they took to their heels with great precipitation, the attack having lasted about an hour."[656]

The siting of the heavy Ngati Awa guns outside the defences of their stronghold was an unusual action and suggests great confidence in the power of these weapons to disconcert and disperse the enemy.

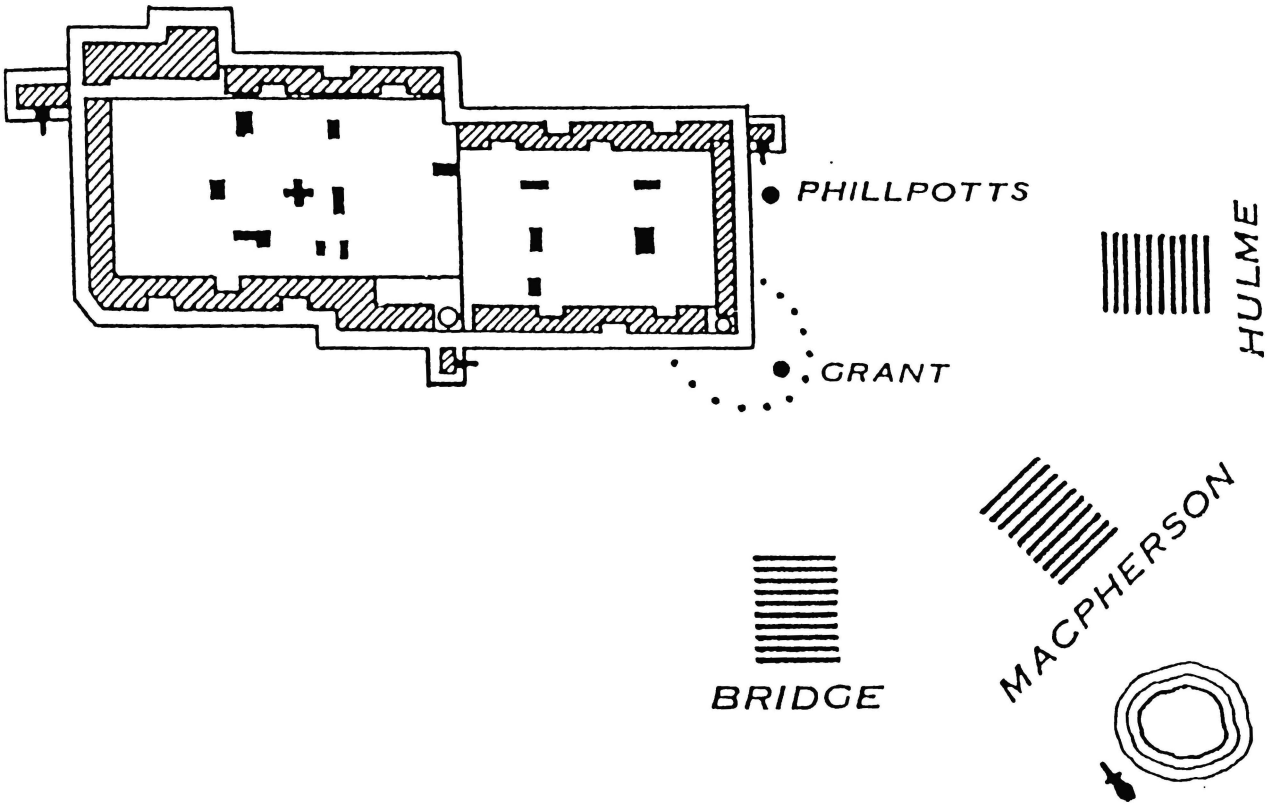
The Kingite artillerymen at Meremere in 1863 also sited ship's guns "... in to embrasures in a kind of chamber cut into the clay bank".[657] These openings covered the approach up or down the river and the gun was shifted from one embrasure to the other with rope tackle. ...A covered way led from the first gun to the second, which was mounted on a rough carriage with wooden wheels."[658]

Again at Paterangi Pa on the upper Waikato two ship's guns had been "mounted behind the parapets in which there were embrasures on the south west post in a position that would sweep the only road by which the troops could advance. In the absence of carriages the Paterangi gunners improvised. The great guns were made fast with aka vines in lieu of rope to "stout sections of tree trunk" sunk into the ground.[659]

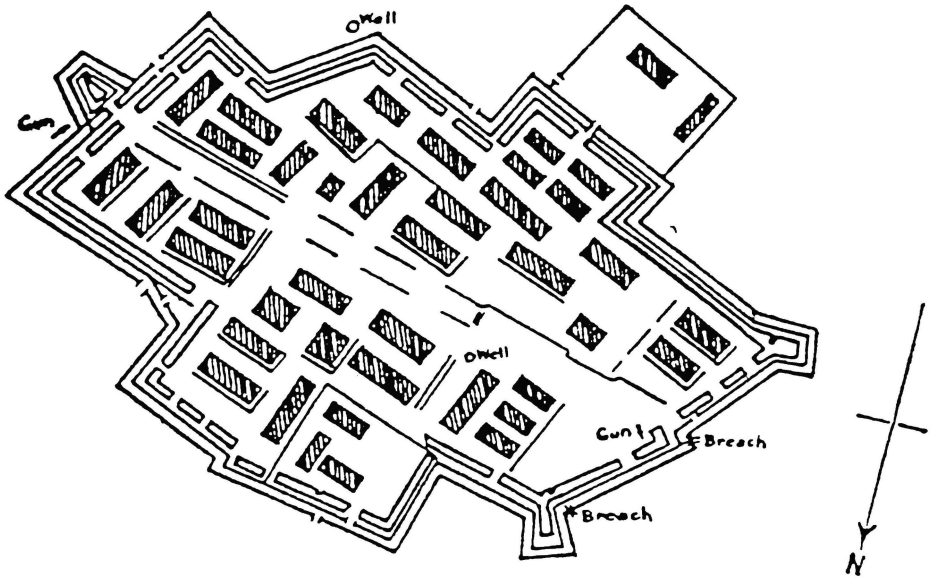


The Maori entrenchments at Meremere, 1863, showing position of Maori heavy guns and Maori gun crew in action.
From James Cowan's *The New Zealand Wars*. Vol 1, p 318.

[656] Smith, S.P. pp 401 - 408.
[657] Cowan, J. Vol 1, pp334 - 337.
[658] Cowan, J. Vol 1, pp 334 - 337.
[659] Cowan, J. Vol 1, pp 334 - 337.



Sketch-Plan of Oheawai Pa, showing position of Maori heavy guns and British point of attack[660]



Sketch-Plan of Ruapekapeka Pa, showing position of Maori heavy guns and breaches made by British artillery[661]

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[660] Buick, T.L. *New Zealands First War or the Rebellion on Hone Heke.* (Wellington, 1926) p 173.

[661] Cowan, J. Vol 1, p 76.

This plan of Oheawai Pa shows the positions of three of the four ship's guns employed by Hone Heke's warriors. One of the nine pound guns was mounted in the bastion facing the east near the south east angle of the pa. The second nine pounder was mounted at an angle on the northern front facing the British camp. The two pound swivel was located after the siege in an embrasure on the same front. the four pound gun was mounted in the small bastion at the south west angle.[662]

> "The Maori enfilading fire completely commanded the angle which was the centre of attack, and many men fell on the western flank, where bullets were poured into them from a small bastion. Those on the northern face became targets for the Maori gun-men in the rectangular salient midway on that flank. In one of these bastions there was a carronade which the Maoris had loaded with a bullock-chain, and this projectile, fired at close quarters, killed or wounded several soldiers. Captain W. E. Grant (58th) fell shot through the head in one of the first volleys. Lieutenant Edward Beattie (96th) was mortally wounded."[663]

The musket wars set in train a series of hekes or tribal migrations. After 1840, tribal groups seeking to re-establish their presence in their former territories became embroiled in disputes with the new occupiers of the land. In at least two instances single cannon were installed in fortifications as a show of strength and to express the determination of parties to remain on the land.

During the Ohuki land dispute in the Tauranga district in 1859 Julius von Haast, a member of Dr F. von Hochstetter's exploration party, sketched a cannon in the defences of Tukiata Pa, Matapihi. The opposing party occupied Tumatanui Pa.[664] During the Mangakahia land dispute in 1862 between Te Tirarau of Ngapuhi and the Uri-o-Hau hapu of Ngatiwhatua in the Whangarei district, the disputing parties constructed pa separated by just 200 yards of ground. An old cannon was dragged by Ngapuhi women to their defensive position on the Wairua and Mangakahia Rivers.[665]

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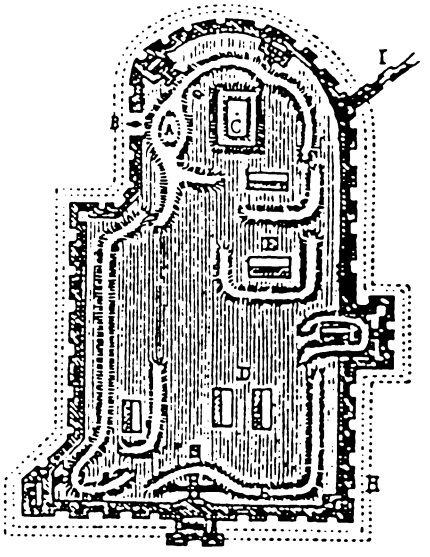
[662] Cowan, J. Vol 1, p 54.
[663] Cowan, J. Vol 1, p 54.
[664] Matheson, A. p 5.
[665] Pickmere, N.P. p16.



A fortified native camp
near Tauranga.

A. Terrace for the commandant.
B. Cannon.
C. Flagstaff.
D. and *E.* Casemates.
F. Ramparts.
G. Trenches.
H. Double raw of palisades.
I. Passage.

Ships Cannon in the defences of Tukiata Pa, Tauranga[666]

Transporting the Great Guns Overland

The logistics of transporting great guns overland were considerable. New Zealand's internal terrain of mountains and dense forests meant that Maori efforts to carry heavy guns cross country were costly in provisions and labour and required considerable organisation. Subsequently there are no records or traditions of tribal chiefs attempting to haul artillery long distances overland, to attack remote enemies. Nevertheless, several tribes seeking to transport purepo from their point of purchase or capture on the coast to their own inland strongholds were compelled to undertake such endeavours. The large numbers of people involved in the removal of heavy guns from Whaingaroa and Te Kopua to the Kingite trenches on the Waikato River in the early 1860's and the removal of two carronades from an old pa to Waingaro Marae in the early 1850's indicate that these arduous undertakings were major tribal enterprises.

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[666] Hochstetter, Ferdinand, von. *New Zealand.* (Stuttgart, 1867) p 444.

Transporting the purepo overland posed insoluble problems for some tribes and not all great guns were to reach their intended destinations. Travelling by foot between Whangaroa Harbour and Mangamuka on the Hokianga in 1836, the Reverend William Woon discovered a great gun abandoned in difficult terrain.

> "A few miles from our encampment, on the summit of a hill, we found lying by the wayside, one of the great guns belonging to the *Boyd*. Some years since the natives of the port of Hokianga conceived the plan of drawing this gun over, supposing it would be a great defence of their pa in time of war and they literally dragged it over Hill and Dale and water streams for many miles until they arrived on the summit of the hill where it is said their food and courage failed them and there we found it lying, a monument to their folly."[667]

Much was made in the contemporary literature of the difficulties Colonel Despard's artillerymen encountered when they hauled 14 artillery pieces including three naval 32 pounders from the coast to besiege Ruapekapeka pa during the Northern War of 1845.[668] The British artillerymen required four weeks of unremitting toil to bring their guns into position but Kawiti's warriors were themselves compelled to manpower at least three great guns over the same terrain to help strengthen their defences.[669] Hone Heke, preparing the defences at Oheawai Pa in the same war, was in a more fortunate position, transporting some of his great guns from the Bay of Islands to his stronghold by bullock dray.[670]

Transportation often entailed a combination of arduous manpowering and floating the great guns by water. On the night of 25 September 1863, a flotilla of canoes carrying over 100 armed Waikato warriors paddled down Kawhia harbour towards Raglan. European residents watched as several rusting cannon were lifted from the shore into the canoes. The guns were eventually manhandled to the top of the Kawhia ranges at the eastern end of the harbour where they were test fired. One piece was badly damaged in the process and abandoned.[671] The remaining three guns,

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[667] *British Parliamentary Papers* Reports from Select committes on New Zealand. Vol XX 1837 - 40 (680) p 237.
[668] Cowan, J. Vol 1, p 52. Buik, T. L. p 164.
[669] Cowan, J. Vol 1, p 77.
[670] Cowan, J. Vol 1, p 54.
[671] Venell, C.W. *Raglan County Hills and Sea. A Recent History 1876 - 1976.* (Auckland, 1837) p 78.

two six pounders and a 24 pounder, were floated down the Waipa and Waikato Rivers and incorporated into the Kingite defences at Meremere.

The two heavy guns comprising the Kingite artillery at Paterangi Pa on the upper Waikato in 1863 had originally been carried overland from Kawhia harbour to the mission station at Te Kopua. With the outbreak of war in these pieces were carried "over the Rauamoa Spur of Pirongia Mountain from Oparau via Hikurangi slung on strong poles which were shouldered by parties of men in frequent reliefs."[672] While purepo in the hands of tribal gunners were not always effective as weapons of war, the prodigious efforts undertaken to acquire and transport them over difficult terrain as late as the New Zealand Wars of the 1860's indicate the importance Maori placed on their great guns as psychological weapons and morale boosters.

Light mobile artillery pieces in field battles provided Maori with tactical alternatives. During the fighting between Colonel McDonnel's colonial forces, and the chief Titokowaru in Taranaki in July 1866, the New Zealand Forest Rangers, constructing their redoubt at Waihi, came under fire from Hau Hau forces at a distance of 1000 yards. "One of the enemies guns must, from the noise it made, have been a two pounder."[673]

The tactic of employing the sound of gunfire to disconcert and intimidate the enemy is an ancient one practised among gunners worldwide. Titokowaru's tactic was in keeping with the Maori use of gunfire for effect. The Forest Rangers christened the Maori two pounder, Big Ben.[674]

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[672] Cowan, J. Vol 1, p 345.
[673] Gudgeon, T.W. *Reminiscences of the War in New Zealand.* (Wellington, 1986) p 127.
[674] Gudgeon, T. W. p 127.

Ships Carronade, Te Horangi, Lake Tarawera

Recovered from the Wairoa stream in the district of the Te Horangi sub tribe of the Arawa confederation in 1963, this twelve pound tribal carronade is today, one of the attractions at the buried village near Lake Tarawera.[675] As with most purepo in the Rotorua region, the carronade would have been acquired through the flax trade at Maketu or recaptured from Ngai Te Rangi with the fall of Te Tumu Pa in 1836. Weighing around 750 pounds or 333 kilograms, this gun would have been transported by canoe and manpowered over difficult terrain from the Bay of Plenty coast to Tarawera, with considerable effort.

The Origins of the Gunfighter Pa

The great guns were a critical element in the evolution of the gunfighter pa and the decline in intertribal warfare. By 1835, twelve northern chiefs in the Bay of Islands and the Hokianga possessed between them, twenty five ship's guns. In the Bay of Plenty region in the same period seven tribes had accumulated twenty three great guns and throughout New Zealand thirty four tribal chiefs numbered some seventy great guns between them by 1840. Some of these pieces were employed by Ngapuhi

[675] Interview, Mr Patrick McGrath 17/9/96 Buried Village, Tarawera.

and Ngaitahu in their amphibious raids but the majority were incorporated into defences of pa, to effectively deter and to repel enemy attacks.

For the heavily armed Ngapuhi factions, possession of a great gun helped secure vital functions of defence and more importantly the psychological function of deterrence with the escalation of inter-hapu factional fighting in the Bay. Additionally, the great guns were a potential means of overcoming the musket pa in the region that increasingly featured pekarangi (light fences), firing trenches, loopholes for muskets, protective banks of earth, and flanking angles to deliver crossfire against hostile forces.[676]

The spate of new pa construction and the enthusiasm for modifying existing strongholds during the 1830's also had its origins in Ngapuhi's fear of retaliatory attacks by their now heavily armed southern enemies. Ngapuhi expeditions under Titore and Pukerangi in 1832 had terminated inconclusively or in defeat. These were the last of the large scale predatory expeditions from the North. The years after 1832 saw a period of experimentation as the northern chiefs constructed or modified their defences in anticipation of being invaded by hostile southern tribes possessing military muskets and ships guns and seeking utu for past defeats.

Retaliatory campaigns by Waikato and their allies in this period compelled Ngapuhi to largely abandon Whangarei and seek refuge among their kin in the Bay of Islands.[677] Watching Ngapuhi construct a new pa at Paihia following the defeat of Rangtukes expedition by Waikato and their allies in 1827. Henry Williams observed:

> "Since the death of Hongi, Ware humu, Te Koikoi and others, the natives of the bay have lost their leaders and have expressed their fear lest those to the Southed should come up to take them by surprise - they are very numerous and have now as many muskets and powder in abundance; the distance they have to come is nothing, and the country is open before them..."[678]

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[676] Yale,W. *An Account of New Zealand.* (Wellington, 1970) pp122 - 126.
Polack, J. pp 66 - 67.
Wade, W.R. pp 26 - 30.

[677] Butler, J. *Journal, June 2* 1823 pp 276-277.

[678] Williams, H. p143.

In this period of experimentation several types of fortifications were seen to exist concurrently. Musket pa mounted on high hills with a single row of palisades and impervious to cannon fire[679] co-existed with pa featuring more elaborate defences. The simple musket pa were designed to counter military technology in the shape of flintlock guns. The economic necessity of locating many of these pa near flax swamps and European settlements however saw most constructed on low hills that were vulnerable to artillery fire.[680]

Kawiti the Ngapuhi chief who gained fame as a military engineer during the Northern War, had seen the tribal artillery in action against Ngai Te Rangi at Tauranga in 1832 and clearly understood its capabilities and limitations. The gunfighter pa constructed under his direction at Oheawai in 1845, withstood a full scale British artillery and infantry assault, and his second pa at Ruapekapeka withstood a three week artillery siege.

Kawiti's gunfighter pa featured bastions projecting beyond the main defensive walls. Each bastion housed a ships gun to protect and support the Maori musketeers firing from their trenches behind the main stockade. William Wade in the Waimate district in 1834, had already seen this modification to the defences of a musket pa.

> "...the people of Mawe near Waimate fortified their pa with a thick wall built up of loose stones, gathered out of their very strong soil. This stone wall was really a creditable piece of native work, with its bastion-like projections, and the ports for the discharge of musketry; but it was directed chiefly as defensive; for the natives at Mawe had learned to prefer peace to war."[681]

At Kawakawa pa in the Bay of Islands, the crew of the French frigate *Venus* also saw a prototype of Kawiti's gunfighter pa in 1836. The Kawakawa stronghold appears to have been constructed to resist artillery fire, featuring trenches that were covered "at special angles" and "stockades ...further strengthened at the bottom to about the height of a metre" at these angles.[682]

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[679] Yate, W. pp 122 - 124.
[680] Maning, F. pp 205 - 207.
[681] Wade, W.R. pp 27 - 28.
[682] Best, E. *The Maori As He Was.* Vol 2 (Wellington, 1974), p 348.

Ngapuhi fortifications of this period also featured the light outer fence or pekerangi. William Yate viewing a pa at Waimate in the late 1830's believed the pekerangi had two functions.

> "The outer fence is much more fragile in its materials, but it is firmly tied; and it is intended to keep the enemy in play, and from making a hasty breach in the inner wall; besides which, it materially breaks the force of the fire, and shields the besieged whilst taking aim from within."[683]

The New Zealand War Veteran Gudgeon believed that by 1845, Maori were already aware of the dangers of splinters arising from iron shot striking wooden palisades and Kawiti had constructed the light palisade at Oheawai to minimise the "chief danger of artillery fire, viz. splinters."[684]

The ethnographer Elsdon Best also held the view that the pekerangi was a consequence of the use of artillery during sieges. "When cannon were brought against him he began to suffer from flying splinters as the balls plugged into his solid stockades and stalwart trunks. He then abolished such erections and replaced them with frail barriers of light poles, to minimise the splinter danger."[685]

Strongholds constructed entirely of earth and impervious to cannon fire also appeared in this period, William Yate described the structures he saw:

> "Some of the native Pas are fortified with earth: the hill is levelled perpendicularly from the summit, to about the depth of ten yards, and precludes the possibility of any person's climbing up without great difficulty. To preserve the inhabitants from the missile weapons of the besiegers, walls of turf and clay are built, about three feet above the surface; behind which they lie secure, till the place is taken. These fortifications are mostly found in the northern parts of the island, have a very imposing appearance, and are doubtless much more desirable, as a defence, than any which can be erected of wood; that is to say, with the means which the New Zealanders now possess. The walls are of such a thickness, that no musket-ball can penetrate; and the hill, upon which they are built, are, for the most part, so high as not to allow a cannon to be brought to bear upon them: and it would seem impossible to take the place with native weapons; or in any way, except by famine.[686]

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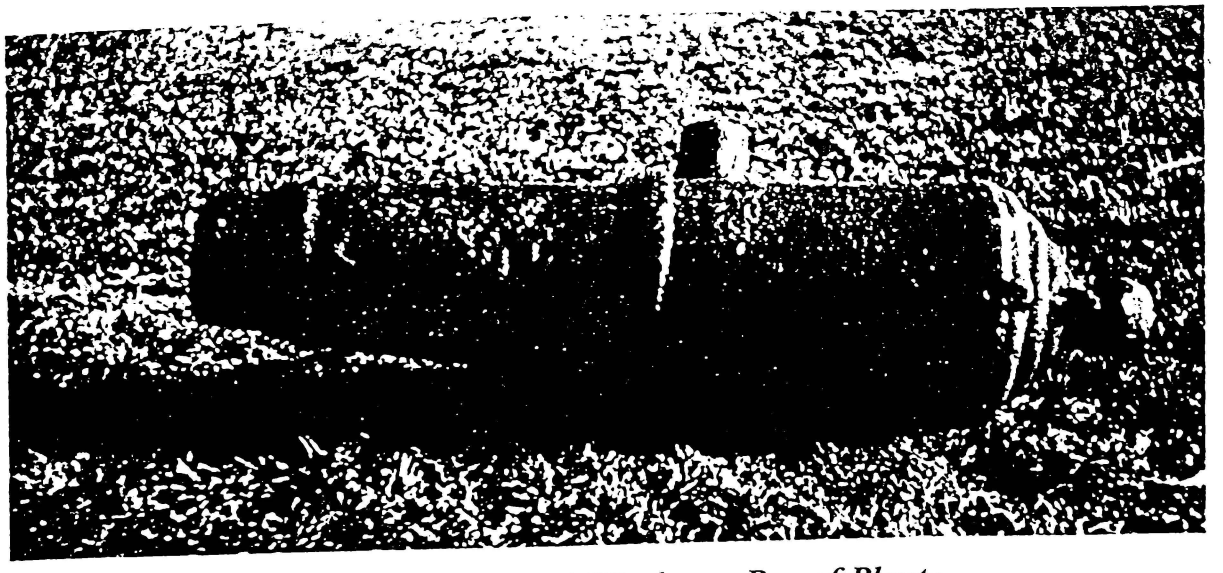
[683] Yate, W. pp 122 - 124.
[684] Gudgeon, L.C. "Maori Wars", *JPS*, No.61, March 1907, p29.
[685] Best, E. *The Maori As He Was.* Vol 2, p348.
[686] Yate, W. p 126.

To the Maori mind, great guns were more than more powerful versions of the musket, and what separates muskets and artillery during the 1830's was the great terror ships guns generated among Maori, and the flood of heavy guns into New Zealand. It was these considerations that helped drive the changes in methods of attack and defence in intertribal warfare at this time. This period of change centred around the struggle between attackers and defenders. The defenders gained the upper hand as the combination of new defensive earthworks, military muskets of reasonable accuracy and the deployment of great guns, gave them the tactical. These developments enabled the defenders at Nga Motu Pa in Taranaki and Otumoetai pa in Tauranga in 1832 and Otuihu Pa in the Bay Of Islands in 1837, to pour volleys of musket and artillery fire into the ranks of attacking warriors with relative impunity.

It is access by Maori to increasing numbers of great guns and the increased firepower as epitomised by the carronade, as much as the introduction of the military musket that accounts for the fundamental reworking of established tactical and strategic concepts by Maori during the 1830's. The outcome was the indigenous Maori gunfighter pa designed to deliver and to resist artillery fire.

The Great Guns As Tribal Toanga



Ships Carronade. Ngati Whakaue, Pay of Plenty
By Dr J. C. Wadmore

This tribal ships carronade was photographed in 1937 at the entrance to the Whakaue Marae by a visiting doctor to the Maketu district in the Bay of Plenty. The original photograph is in the possession of the Whakatane Museum and it is not possible to estimate the calibre of this gun from the photograph.

The tribal artillery had a value far beyond their function as weapons of war. The great guns were obtained at considerable economic cost to the hapu. Once acquired, the individual purepo were named, and appear to have become treasured possessions, held in awe and treated with reverence, long after they were obtained. The great guns seem to have become synonymous with the power and the mana of the tribe, clearly signalling the economic as well as the military capabilities of the possessors.

The tradition of interring weapons with dead warriors is a very ancient one, but although there are frequent references to musket burials during intertribal Wars, there is no evidence indicating that great chiefs were ever buried with their heavy guns. The Arawa Pakeha-Maori, Hans Tapsell, insisted on his death that one of his artillery pieces be placed over his grave at Maketu, but the great guns appear to have been too valuable and significant to Maori to warrant burial with important people. Rather, for Maori, the great guns became valued heirlooms because of their association with a succession of leading men and were toanga or tribal treasures in the truest sense. The great guns represented a tangible link with the ancestors and several pieces were employed well into the twentieth century, not only to enhance tangihanga but to celebrate important occasions among the living. After 1900, Arawa at Maketu continued to fire two cannon on the death of their chiefs, but also on the relief of Mafeking in 1900, on the death of Queen Victoria in 1901 and when the Kaituna River was dredged open in 1927.[687]

The Whakaue carronade was one of several heavy guns still in the possession of the Arawa people during the 1930's. Unfortunately, this gun was stolen from the marae one night during the Second World War when a scrap metal drive was in progress in the district.[688] The fate of the Whakaue carronade is representative of the fate of the great guns with the spread of Christianity among the tribes, the effects of war weariness and the rejection of the old warlike ways. Consequently the tribal guns have fared badly with just twenty pieces surviving intact to the present day.

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[687] Matheson, A. p 6.
[688] Matheson, A. p 7.

The fate of the great guns varied. Some were pushed out of their casements in fortified positions at Ruapuke Island. Others were abandoned to sink away into the earth and scrub at Whangaroa and at Whakatane Heads. Some were sold as ballast to the European shipping at Maketu, and thrown into the Wairoa Stream in the Tarawera district.

Surviving great guns today are mainly concentrated in the Bay of Islands, Bay of Plenty and Kawhia region. Maori place names in the Ngaruawahia district, - the Pu Nui River and Pu Nui Street, record tantalising links with great guns long since vanished. Given the sheer quantity and quality of the metal used in their construction, many existing pieces have survived years of neglect and lie quietly awaiting their rediscovery and resurrection. The Te Whakatohea carronade, Te Haramiti, may lie beneath the silt near the Opotiki wharf.[689] A ship's gun plundered from the *Haweis* is reputed to lie hidden on a hillside overlooking Whakatane.[690] The twenty surviving heavy guns are located in museums or have been incorporated into historical monuments. The remainder are located in Maori cemeteries and on ancestral maraes.

The deployment of tribal artillery during the Musket Wars was made possible by the general absence of opposing artillery and the subsequent ability of batteries to operate freely. This meant that tactically there were few limitations on the transport and siting of the guns, other than those normally assocaited with sea conditions and terrain. The musket chiefs were therefore provided with a range of tactical options and the Musket Wars were distinguished by the use of the purepo in such diverse roles as shore batteries; as mobile batteries mounted on canoes, cutters and whaleboats; and the conventional use of artillery as weapons of attack and defence in siege warfare.

While the great era of the tribal gunner was short-lived, lasting little more than a decade, the tribal artillerymen achieved a concentration of heavy weapons never attained by the tribal gunners in the conflicts of the Northern War of 1845 and the New Zealand Wars of the 1860's. More significantly, the proliferation of great guns among the tribes helped create a new intertribal balance of power or balance of terror, the great guns encouraging emphasis on defensive strategies and the abandonment of predatory expeditions by the raider tribes during the 1830's.

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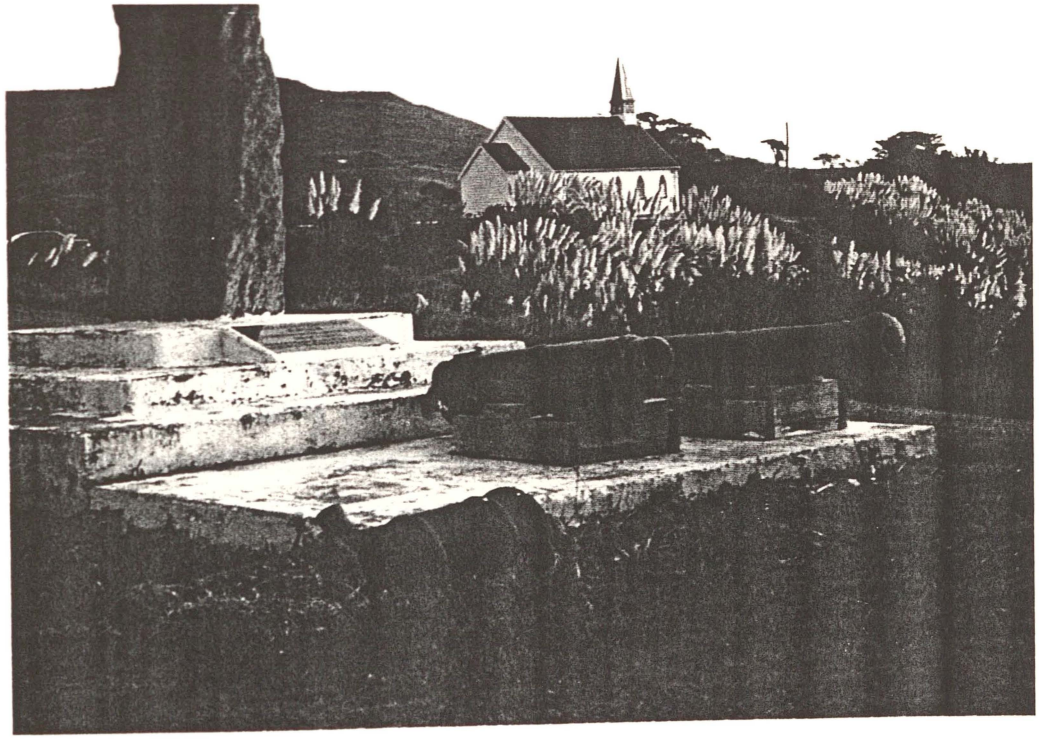
[689] Lyall, N.C. p 44.

[690] London, H.D. "Sources of Information Concerning the Haweis Incident." *Historical Review*. Vol 2, 1952. p 23.

the great guns encouraging emphasis on defensive strategies and the abandonment of predatory expeditions by the raider tribes during the 1830's.

In conclusion, heavy guns played an important function in the tactical plan of at least 34 musket chiefs between North Cape and Foveaux Strait and these weapons were employed successfully in ten out of fourteen inter-tribal conflicts where they were fired in anger. Therefore, despite the somewhat rag-tag nature of their appearance on Maori battlefields during the period, and the difficulties associated with munitions supply, the tribal artillerymen generally appear to have delivered a flexible and effective service.



Moetara's Guns, Ngati Korokoro, Pakanae Marae, Hokianga

Twin cannon and ships carronade. These three twelve pound purepo were employed by the chief Moetara to bombard his enemies at Motiti Island on the Hokianga River about the year 1830. [691]

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[691] Markham, E. p 38. Correspondence 15/4/97 Mr Alec Griffiths, President, Hokianga Historical Society.

CONCLUSION

The Musket Wars were more than a period of bitter internecine slaughter. The wars are an important record of Pakeha involvement and participation in Maori society and in Maori warfare during the early contact period. The first musket traders and the coastal tribes reaped the rewards of a commercial and technological bonanza for the musket trade was never a one sided affair. Maori positively welcomed the new western military technology and acquired European weapons for their own benefit. Maori were never passive receptors in the face of Western contact, they were astute dealers in their own right and both sides were guilty of sharp practices. While the musket altered irrevocably tribal territories and the nature of Maori life, it did not destroy Maori society which showed a remarkable capacity to adapt. If the Musket Wars saw an escalation of inter-tribal warfare, the increasing Maori military expeditions were interwoven with the political, social and economic changes sweeping New Zealand.

Contemporary descriptions of the impact of the musket on Maori society have not been exaggerated. The acquisition of muskets saw a new militarisation of Maori society as women, boys, slaves and Pakeha joined the ranks of the musket taua. A major study of the impact of the musket on Maori peacetime rituals and ceremonies is yet to be undertaken, but the 1820's and 1830's saw the emergence of the world's first truly indigenous gun societies, where men, women and children went constantly armed with the new weapons.

Inter-tribal musket warfare swept most major indigenous Pacific societies during the nineteenth century, but the use of artillery in warfare was unique to Maori and New Zealand. The sheer number and spread of great guns among Maori and their extensive use in inter-tribal battles link Maori gunners in the remote South Pacific to the tribal artillery men in the sophisticated indigenous flintlock armies of Asia, North Africa and the Middle East.

Europeans perpetuated a distorted view of Maori competence with guns and great guns and a clear gap exists between what Europeans wanted to believe and the harsh reality of encountering Maori guns in the conflict at Wairau in 1842 and during the Northern and New Zealand Wars. Maori were initially overawed and bewildered

by the new European military technology, but acculturated the flintlock guns and ships cannon with remarkable speed. Maori remained confident in their culture and in no way acknowledged European forms of warfare as superior. Their response to European technology similarly indicates supreme confidence in their own culture. As late as 1837, a visitor to the Bay of Islands wrote:

> "They have a very great conceit of their own abilities in warfare, and think themselves quite competent to cope with Europeans, whom they barely allow to be their superiors even in civilization; as whenever any observation is made to them concerning the beauty of the workmanship of our manufactures, they invariably reply, that we are *Pakia,* or white men, and that if they were white men they could do the same.".[691]

[691] *Sydney Herald* 17th July 1827.

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Abbreviations

AIM	Auckland Institute and Museum
APL	Auckland Public Library
ENZ	An Encylopaedia of New Zealand (Ed) A .H. McLintock, 3 vols 1966
JAH	Journal of African History
JPH	Journal of Pacific History
JPS	Journal of the Polynesian Society
NAA	National Archives, Auckland
NZJH	New Zealand Journal of History

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Illustrations

All photographs from Author's collection. Exceptions acknowledged in the text.

Maps pp vi and vii from Morrell, W.P. and Hall, D. *A History of New Zealand Life* Christchurch, 1957, pp 6-7.

Glossary

ariki	paramount chief
atua	spirit
haka	war dance, with chant of defiance
hakimana	percussion musket
hakimana	cheap trade gun
hapu	clan, subtribe
hauhunga	funeral ceremony
hota	shot
iwi	tribe
kai pauri	powder eater
Kainga	unfortified village
kaumo	flintlock musket
Mana	prestige, influence
mere	short weapon of whalebone, greenstone or heavy wood
moko	tattoo
ngutu parera	(duckbill) flintlock musket named from the shape of the hammer
pa	fortress
Pakeha	foreigner, particularly Europeans
Patu Iwi	Killer of Tribes. Hongi Hika's double barrelled gun
paura	powder
paura mamai	sacred powder
pekerangi	light outer fence of a pa
pu toriri	flintlock musket
pu toko	flintlock musket
pu	general name for firearms
pu nui	big gun
puhuri whenua	A ships gun that causes the earth to tremble
pukara	bugler
purepo	great gun
rakau-Maori	conventional Maori weapons of stone, bone and wood
rangatira	chief
rua	pit, anti artillery bunker
tahu whenua	general name for firearms
tangi	death ceremonial, lament
tangihanga	funeral wake
taonga	treasure
tapu	sacred
taua	war party, or war expedition

taonga	treasure
tapu	sacred
taua	war party, or war expedition
taua muru	plundering expedition seeking compensation for an offence, in which blood is not shed
toa	a warrior
tohunga	expert, specialist, often in religious matters
tuamaihi	tower, part of a fortification
tupara	double barrelled gun
utu	blood vengeance.