Copyright Statement

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

This thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author’s right to be identified as the author of this thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from their thesis.

To request permissions please use the Feedback form on our webpage. http://researchspace.auckland.ac.nz/feedback

General copyright and disclaimer

In addition to the above conditions, authors give their consent for the digital copy of their work to be used subject to the conditions specified on the Library Thesis Consent Form.
THE ARCHAEOLOGY OF A MILITARY FRONTIER:
TARANAKI, NEW ZEALAND, 1860-1881.

Nigel Prickett

Volume 1

A Thesis Submitted for the Degree of
Doctor of Philosophy
at the University of Auckland,
New Zealand

1981
"We must make war in the Roman way of roads and posts."

(C.W. Richmond to H.A. Atkinson, 1 Oct 1860: 
The Richmond-Atkinson Papers, ed. G.H. Scholefield, 
ACKNOWLEDGEMENTS

Space does not allow a personal acknowledgement to everyone who has helped with the work reported here. General thanks are owed to the many landowners in Taranaki who were always interested in the work and generous with permission to visit sites. I also owe much to the excavation teams at Omata and Warea, and to cheerful company in the archaeological laboratory over many months.

For help in initial site surveying I owe a great deal to Kathy Prickett who visited every site with me and helped work out what remained of often very limited surface archaeological evidence. For sharing my interest in the Taranaki historical landscape, and for assistance over the years, I am also grateful to Kelvin Day, Ron Lambert and Robyn Oliver.

In Auckland I am especially grateful to Roger Green for his support in what has been a new departure for university based archaeology in New Zealand. Thanks are also due to Richard Cassels and Geoffrey Irwin for interest in my work and assistance with grant applications. I am also grateful to Atholl Anderson and Reg Nichol for their continuing interest and ideas.

Excavations at the two Taranaki sites were made enjoyable by the interest and help of the landowners, Mr and Mrs Bill Reardon, Omata, and Mr and Mrs Harry Chapman, Stent Road, Warea. Accommodation was provided by Mr and Mrs R. Mace and Mr and Mrs John Wells. Kathy Prickett provided essential organisational help at the camp and the site.

For specialist help with classes of excavated material I
would like to thank: Mr N.S. Whittall, Research Institute Textile Services, Lower Hutt (cloth); Gregory Waite, Auckland (earthenware); L.J. Spong and P. Whitehead, Stephensons of Oxford, United Kingdom (brick); Mr J.H. Lowery, New Zealand Geological Survey, Lower Hutt (coal); Rhys Gardiner, D.S.I.R., Mt Albert, Auckland (wood); and Atholl Anderson and Charles Higham, Anthropology Department, University of Otago (bone).

For expert technical help I am especially grateful to Caroline Phillips who did all the artefact and excavation drawings. I am also grateful to Karel Peters for drawing and Val Baillie for photography. Eve Avery typed the manuscript, and Anne Wilson, the references and appendices.

Institutional support over the period of this research has been provided by the Taranaki Museum, the University of Auckland and the Auckland Museum. The Auckland University Research Committee funded the two excavations, with logistic and financial support coming from the Anthropology Department.
This thesis describes the archaeology of the European military frontier in the province of Taranaki, New Zealand, in the years 1860-1881. In this period a series of four campaigns resulted in the expansion of European settlement at the expense of the indigenous Maori people.

The First Taranaki War (1860-61) did not resolve the fundamental conflict over land and the imposition of British law. The passage of the New Zealand Settlements Act in late 1863 brought European military strategy into line with political reality. Henceforth the land of 'rebel' tribes was to be confiscated, the military frontier providing a bulwark for an expanding European farming frontier. The Second Taranaki War (1863-66), the White Cliffs Scare (1869) and the Parihaka Campaign (1880-81) resulted in successive areas of Maori land in Taranaki being brought under European control.

The present work is divided into two parts. In the first (Volume 1), the geography and archaeology of the European military effort in Taranaki is described; the fortifications and frontier organisation are compared with those of earlier periods of imperial expansion elsewhere in the world, and the techniques employed in New Zealand are shown to be by no means unusual. The second part (Volume 2) reports the results of excavations at two European fortifications of the period. These serve to describe further the archaeology of the Taranaki frontier and also, through the recovered material culture, to demonstrate the dependent relation of the military frontier in New Zealand to the economies of the northern hemisphere.
CONTENTS

Acknowledgements iii
Abstract v
Contents vi
List of Tables xiv
List of Plates xvi
List of Figures xxiv

CHAPTER I. INTRODUCTION. 1
The research background 5
The historical background 9
European fortifications in New Zealand 10
Taranaki 16

CHAPTER II. THE ARCHAEOLOGY OF THE TARANAKI MILITARY FRONTIER. 22
The First Taranaki War 23
Marsland Hill and Mount Eliot 25
The entrenchment of New Plymouth 33
The New Plymouth blockhouses 35
Bell Block Stockade 42
Omata Stockade 44
Waitara Camp and Blockhouse 45
Fort Turner and Fort Strange 56
Puketakauere Stockade 58
Wairereka Camp 63
Camp Parawha and the Orongomaihangi Sap 68
Mahoetahi Stockade 74
General Pratt's Sap 78
No 1 (Kairau) Redoubt 81
Matarikoriko Stockade 86
No 2 Redoubt 88
No 3 Redoubt 89
No 4 Redoubt 91
No 5 Redoubt 92
No 6 (Huirangi) Redoubt 93
No 7 Redoubt 95
No 8 Redoubt 98

The Second Taranaki War 101
St Patrick's (Poutoko) Redoubt 102
St George's (Tataraimaka) Redoubt 107
St Andrew's (Oakura) Redoubt 115
Fort Robert 121
Sentry Hill Redoubt 126
Pahitere Redoubt 131
Kaitake Redoubt 135
Lower Kaitake Blockhouse 142
Dingle's Blockhouse 143
Ratanui Blockhouse 147
Puketotara Blockhouse 148
Allen's Hill Blockhouse 150
Mataitawa Redoubt 151
Matakara Redoubt 158
Manutahi Redoubt and Blockhouse 160
Te Arei Redoubt 161
Mataitawa Blockhouse 165
Timaru Redoubt 168
Tataraimaka Blockhouse 170
Stoney River Redoubt 172
Pukearuhe Redoubt 176
Warea Redoubt 187
Opunake Redoubt 187
Tikorangi Redoubt 195
Urenui Redoubt 203
T.M.S. camps at Orongomaihangi, Tukitukipapa and Puke Ti 209
Okato Blockhouse 212
Tuahukino, Ahu Ahu, Manganui and Te Arei Blockhouses 219

The White Cliffs Scare 223
Takapu Redoubt 225
Waiti Redoubt 225
Papatiki Redoubt 231
Mimi Stockade 234
A.C. redoubt north of Urenui River 239

The Parihaka Campaign 240
Oakura A.C. Redoubt 240
Bayly's Farm A.C. Camp 242
Werekino Camp 246
Ngakumikumi Camp 250
Pungarehu Camp 251
Opua Camp 256
Kaikahu Redoubt 258
<table>
<thead>
<tr>
<th>Category</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark green glass</td>
<td>416</td>
</tr>
<tr>
<td>Stone and earthenware bottles and jars</td>
<td>416</td>
</tr>
<tr>
<td>Earthenware and porcelain</td>
<td>421</td>
</tr>
<tr>
<td>Cups and mugs</td>
<td>423</td>
</tr>
<tr>
<td>Saucers</td>
<td>429</td>
</tr>
<tr>
<td>Plates</td>
<td>430</td>
</tr>
<tr>
<td>Bowls</td>
<td>432</td>
</tr>
<tr>
<td>Jugs</td>
<td>434</td>
</tr>
<tr>
<td>Makers' marks</td>
<td>434</td>
</tr>
<tr>
<td>Clay tobacco pipes</td>
<td>435</td>
</tr>
<tr>
<td>Manufacturers</td>
<td>436</td>
</tr>
<tr>
<td>Other brand names</td>
<td>445</td>
</tr>
<tr>
<td>Decoration</td>
<td>447</td>
</tr>
<tr>
<td>Use and re-use</td>
<td>449</td>
</tr>
<tr>
<td>Buttons</td>
<td>450</td>
</tr>
<tr>
<td>Type 1</td>
<td>451</td>
</tr>
<tr>
<td>Type 2</td>
<td>451</td>
</tr>
<tr>
<td>Type 3</td>
<td>454</td>
</tr>
<tr>
<td>Type 4</td>
<td>455</td>
</tr>
<tr>
<td>Type 5</td>
<td>458</td>
</tr>
<tr>
<td>Type 6</td>
<td>458</td>
</tr>
<tr>
<td>Cufflink</td>
<td>459</td>
</tr>
<tr>
<td>Uniform pieces</td>
<td>459</td>
</tr>
<tr>
<td>Cloth</td>
<td>461</td>
</tr>
<tr>
<td>Footwear</td>
<td>463</td>
</tr>
<tr>
<td>Miscellaneous artefacts of copper and brass</td>
<td>467</td>
</tr>
<tr>
<td>Coins</td>
<td>470</td>
</tr>
<tr>
<td>Ammunition</td>
<td>471</td>
</tr>
</tbody>
</table>
Miscellaneous lead 478
Musical instruments 478
Iron 480
    Tin cans 480
    Sardine tins 481
    Matchboxes 484
    Nails 485
    Nuts and bolts 490
    Miscellaneous iron 490
Window glass 492
Slate 493
Other building materials 494
Coal 495
Bone 495
Shell 496
Conclusions 497

CHAPTER V. EXCAVATIONS AT WAREA REDOUBT 505
History of Warea Redoubt 506
The surface evidence 508
Natural stratigraphy 513
The excavation 513
    The first redoubt 514
    The second redoubt 522
    The external living quarters 531
The artefacts 537
    Bottle glass 538
    Window glass 542
Other glass 542
Stone and earthenware bottles and jars 543
China and porcelain 543
Clay pipes 544
Buttons 548
'Small chinas' 549
One piece buttons 549
Two piece buttons 551
Military buttons 552
Footwear 553
Miscellaneous artefacts of copper and brass 553
Coin and token 554
Miscellaneous lead 555
Ammunition 555
Iron 556
Tin cans 557
Sardine tins 557
Matchboxes 559
Miscellaneous iron 560
Knives 561
Slate 561
Brick 562
Bone 562
Shell 563
Miscellaneous 563
Zinc 563
Mortar 564
Tinfoil 564
Pencil 'lead' 564
Combs 564
Pumice 564
Seeds 564
Marble 564
Adze fragment 564
Peachstones 564
Conclusions 565

CHAPTER VI. OMATA STOCKADE AND WAREA REDOUBT: ORGANISATION AND ECONOMY. 568
Defences and living quarters 569
The artefacts 575
The industrial revolution and the colonial economy 581

CHAPTER VII. DISCUSSION AND CONCLUSIONS. 588
The historical perspective 588
Archaeological implications 594

APPENDICES.
1. Glossary of terms used.
2. Gazetteer of archaeological sites of the Taranaki Wars.
3. The Omata Stockade register of artefacts.
4. Warea Redoubt register of artefacts.

REFERENCES.
### TABLES

#### CHAPTER IV

4.1. Omata Stockade bottle glass. 388
4.2. Omata Stockade: diameters of intact and reassembled 'black bottle' bases. 390
4.3. Omata Stockade, distribution of earthenware and porcelain. 422
4.4. Omata Stockade 'willow pattern' china. 432
4.5. Omata Stockade clay pipe assemblage. 438
4.6. Pipe manufacturers represented in the Omata assemblage. 439
4.7. Omata Stockade footwear material (not shown in Plate 4.12). 467
4.8. Omata Stockade 'tin cans'. 481
4.9. Omata Stockade sardine tins. 481
4.10 Omata Stockade matchboxes. 484
4.11. Omata Stockade nails and tacks. 487
4.12. Omata Stockade window glass. 493
4.13. Omata Stockade bone material. 496
4.14. Identified shell material from the Omata Stockade. 497

#### CHAPTER V

5.1. Warea Redoubt bottle glass. 538
5.2. Warea Redoubt clay pipe assemblage. 546
5.3. Warea Redoubt clay pipe makers’ marks. 544
5.4. Warea Redoubt 'tin cans'. 557
5.5. Warea Redoubt matchboxes. 559
5.6. Warea Redoubt shells. 563
CHAPTER VI

6.1. Major historical and archaeological differences between the Omata Stockade and Warea Redoubt. 568
CHAPTER II

2.1. Marsland Hill barracks, "Dec 17th 1862 New Plymouth" (H.J. Warre). 27

2.2. New Plymouth foreshore showing Mt Eliot (H.J. Warre). 27

2.3. "Marsland Hill. N.P. 22 June 1864." Carrington Road Blockhouse in the foreground (E.A. Williams). 31

2.4. Bell Block blockhouse and stockade (F.H. Arden). 31

2.5. "Camp "Waitara"" (J.E.D. McCarthy). 51

2.6. Plan of Waitara Camp (O. Carrington). 51

2.7. "Blockhouse and Commissariat Stores at the mouth of the River Waitara" (T. Humphries). 55


2.9. "Puketakaure from the Camp" (T. Humphries). 64

2.10. Onukukaitara and Puketakaure from the south, 1975 (N. Prickett). 64

2.11. "Mahohitahi Oct 10th 1864" (H.J. Warre). 77

2.12. Matakaora Stockade (H.S. Bates). 77


2.14. The head of General Pratt's sap just after the ceasefire of March 1861, showing demi-parallels and the palisaded Te Arei pa (F.H. Arden). 83

2.15. General Pratt's sap, 1975 (N. Prickett). 83

2.16. General Pratt's sap showing up under new grass, looking towards No 6 Redoubt, 1975 (N. Prickett). 96

2.17. No 6 Redoubt, 1975 (N. Prickett). 96

2.18. "No 7 Redoubt" (T. Humphries). 99

2.20. Aerial photograph 1787/5, 14 August 1950 (N.Z. Aerial Mapping Ltd).


2.22. "The Fight at Kaitake, one Mile South of Tataraimaka, 4th June 1863" (G.W. Norbury).


2.24. St Andrew's Redoubt, Oakura (Nicholl Album).

2.25. St Andrew's Redoubt, Oakura (Nicholl Album).


2.27. St Andrew's Redoubt, Oakura, 1975 (N. Prickett).

2.28. "Fort Robert, Taranaki 28 June 1864" (E.A. Williams).

2.29. Fort Robert, 1975 (N. Prickett).

2.30. Sentry Hill Redoubt (S.P. Smith).

2.31. "Morere or Sentry Hill Redoubt 1865" (H.J. Warre).

2.32. Pahitere Redoubt, 1975 (N. Prickett).

2.33. Pahitere Redoubt 1864-65 (Nicholl Album).

2.34. Kaitake Redoubt (Nicholl Album).


2.36. "Dingle's Blockhouse Taranaki" (H.J. Warre).

2.37. "Ratanui Blockhouse Nov 9" (H.J. Warre).

2.38. "Puketotara Nov 18" (H.J. Warre).


2.40. "Mataitawa Redoubt, Taranaki, Jan 24 1866" (Anon.).

2.41. Mataitawa Redoubt, 1975 (N. Prickett).
2.42. Matakara Redoubt, 1975 (N. Prickett).
2.43. "The Redoubt of Te Arei, Taranaki, Captn Jonas' Station beyond" (Anon.).
2.44. "Block House Mataitawa" (from S.P. Smith).
2.45. Timaru Redoubt, 1975 (N. Prickett).
2.46. "Mt Egmont from the Camp near Stoney River" (H.J. Warre).
2.47. Pukearuhe during the Armed Constabulary period (W.H. Collis).
2.48. Pukearuhe Redoubt, 1873 (T. Good).
2.49. Opunake Redoubt, 1975 (N. Prickett).
2.50. Opunake Redoubt, 24 October 1867 (N. Carrington).
2.51. Opunake Redoubt in the 1880s (E. Maxwell).
2.52. "Opunake Redoubt 1879" (Taranaki Museum photograph).
2.53. The No 2 Company redoubt at Onaero, 1975 (N. Prickett).
2.54. Tikorangi Redoubt, 1975 (N. Prickett).
2.55. "Urenui Redoubt held by Friendly Maoris under Captn Good" (W.B. Messenger).
2.56. Okato Blockhouse, 1975 (N. Prickett).
2.57. Te Arei Blockhouse, 1975 (N. Prickett).
2.58. Waititi Redoubt, with Papatiki Redoubt behind (F.H. Arden).
2.60. Papatiki Redoubt (F.H. Arden).
2.61. Papatiki Redoubt, 1975 (N. Prickett).
2.64. Bayly's Farm A.C. Camp (A. Bay?).
2.66. Werekino Camp (A. Bay?). 249
2.67. Ngakumikumi Camp (S. Newall). 249
2.68. Pungarehu A.C. Camp (S. Newall). 253
2.69. Pungarehu A.C. Camp (Turnbull Library photograph). 253
2.70. "Pungarehu Blockhouse" (W.W. Fulton). 255
2.71. "Pungarehu" (J. Ledger). 255
2.72. "Rahotu Stockade" (W.W. Fulton). 262

CHAPTER III

3.1. Design for a one hundred man redoubt (H.J. Warre). 327
3.2. Design for a two hundred man redoubt (H.J. Warre). 327

CHAPTER IV

4.2. Omata Stockade (F.H. Arden). 358
4.3. Omata Stockade excavation: the platform looking north. 370
4.4. Omata Stockade excavation: the bastion looking south. 370
4.5. Omata Stockade stoneware (1). 417
4.6. Omata Stockade stoneware (2). 419
4.7. Omata Stockade earthenware (1). 424
4.8. Omata Stockade earthenware (2). 428
4.9. Omata Stockade earthenware (3). 431
4.10. Omata Stockade earthenware (4). 433
CHAPTER V

5.1. Warea Redoubt, 1975 (N. Prickett). 509
5.2. Warea Redoubt excavation: Square X hearth. 534
5.3. Warea Redoubt excavation: Square XV hearth. 534
FIGURES

CHAPTER I

1.1. Map of the North Island, New Zealand, showing location of Taranaki, and of other major military campaigns of the New Zealand Wars. 11

CHAPTER II

2.1. Map showing Maori and European fortifications, major engagements and other aspects of the First Taranaki War. 24
2.2. The defences of New Plymouth, First Taranaki War. 26
2.3. "Sketch Plan of Marsland Hill Reserve, shewing the position of the Barracks and Buildings" (N. Carrington). 29
2.4. Te Kohia, or 'L-pa' (from GBPP). 48
2.5. Plan and section of Puketakauere (from GBPP). 60
2.6. Plan and section of Onukukai'ata (from GBPP). 62
2.7. Waireka Camp plan. 67
2.8. Attack on the Kaihihi River pa, showing entrenchments of Camp Parawha, sap, and Orongomaihangi, Pukekakariki and Mataiaio pa (T.R. Mould). 69
2.9. Plans and sections of Orongomaihangi and Pukekakariki (from C. Pasley). 71
2.10. Plans and sections of Maori rifle pits (from C. Pasley). 73
2.11. Plan and sections of General Pratt's sap (T.R. Mould). 82
2.12. Numbers 1, 3, 6 and 7 Redoubts, and section through defences (T.R. Mould). 85
2.13. Map showing European fortifications, major engagements and other aspects of the Second Taranaki War. 103
2.14. Redoubt plans: St Patrick’s Redoubt, Poutoko; St George’s Redoubt, Tataraimaka. 105
2.15. Redoubt plans: St Andrew’s Redoubt, Oakura; Fort Robert. 122
2.16. Plan of Kaitake Redoubt. 141
2.17. Plans of archaeological remains of blockhouse sites: Dingle’s Blockhouse; Ratanui Blockhouse. 146
2.18. Redoubt plans: Mataitawa Redoubt; Matakara Redoubt. 157.
2.19. Redoubt Plans: Te Arei Redoubt; Timaru Redoubt. 164
2.20. Plans of successive redoubts at Pukearuhe: the first redoubt (1865); the second redoubt (1872). 185
2.21. Redoubt plans: Tikorangi Redoubt; Urenui Redoubt. 202
2.22. Surviving archaeological evidence of blockhouse defences: Okato Blockhouse; Te Arei Blockhouse. 218
2.23. Map showing military sites established during the White Cliffs Scare 1869. 224
2.24. Redoubt plans: Waititi Redoubt; Papatiki Redoubt. 230
2.25. Present archaeological evidence of defensive sites: Mimi Stockade; Armed Constabulary redoubt north of Urenui River. 238
2.26. Map showing military sites established during the Parihaka Campaign 1880–81. 241
2.27. Redoubt plans: Oakura A.C. Redoubt; Bayly’s Farm A.C. Camp. 243
2.28. Kaikahu Redoubt plan. 259

CHAPTER III

3.1. Taranaki redoubt plans. 319
3.2. The organisation of military frontiers. 332
3.3. Military sites of the Taranaki Wars. 339

CHAPTER IV

4.1. Location of Omata Stockade and Warea Redoubt. 356

4.2. Perspective sketch, plan and section of the Omata Stockade (J.E. Alexander). 363

4.3. Omata Stockade showing excavated areas. 366

4.4. Omata Stockade top platform – north end excavation plan. 368

4.5. Omata Stockade top platform – south end excavation plan. 372

4.6. Ngaturi pa rua. 375

4.7. Omata Stockade – section across artificial terrace belonging to Ngaturi pa. 376

4.8. Omata Stockade defensive ditch plan. 378

4.9. Omata Stockade south section of Square XII. 380

4.10. Omata Stockade north section of Square XII. 381

4.11. Omata Stockade north section of Square X. 382

4.12. Omata Stockade west section of Square XVI. 383

4.13. Omata Stockade 'black bottles' (1). 389

4.14. Omata Stockade 'black bottles' (2). 391

4.15. Omata Stockade 'black bottles' (3), and dark green stoppers and bottle. 393

4.16. Omata Stockade lead capsules. 395

4.17. Omata Stockade 'cognac' bottles and labels (1). 397

4.18. Omata Stockade 'cognac' bottles and labels (2). 399

4.19. Omata Stockade whisky bottles. 401

4.20. Omata Stockade salad oil bottles. 403

4.22. Omata Stockade miscellaneous aqua bottles and stoppers. 409
4.23. Omata Stockade 'bitters' bottles. 411
4.24. Omata Stockade 'case gin' and schnapps bottles. 413
4.25. Omata Stockade blue, and colourless glass bottles and stoppers. 415
4.26. Omata Stockade cup shapes. 426
4.27. Omata Stockade clay pipe manufacturers' marks. 440
4.28. Omata Stockade clay pipe decorated pieces. 448
4.29. Omata Stockade one piece buttons. 452
4.30. Omata Stockade two piece buttons. 456
4.31. Omata Stockade miscellaneous artefacts. 460
4.32. Omata Stockade - copper labels on sardine tins. 483
4.33. Omata Stockade matchbox labels. 486

CHAPTER V

5.1. Warea Redoubt showing excavated areas. 511
5.2. Warea Redoubt Squares IV, VIII and IX plan. 515
5.3. Warea Redoubt Squares I, II and III, and Squares IV and VIII sections. 517
5.4. Warea Redoubt Squares V and VI plan and sections. 521
5.5. Warea Redoubt Squares I, II and III plan. 523
5.6. Warea Redoubt Square XI plan and sections, and Square XIV plan. 526
5.7. Warea Redoubt Squares VII and XII plan and sections. 528
5.8. Simplified plans showing shapes of first and second redoubts at Warea, and sequence of changes to north-west angle of second redoubt. 530
5.9. Warea Redoubt Square XIII section and plan, and plan of external living quarters showing excavated areas. 532
5.10. Warea Redoubt artefacts (1 - including clay pipe material, glass stoppers, ammunition, marble and pocket knife). 545

5.11. Warea Redoubt artefacts (2 - including buttons, buckle and Hanks and Lloyd token). 550

5.12. Warea Redoubt artefacts (3 - including sardine tin and matchbox labels, lead capsule and brick). 558