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**SOURCES FOR THE ARCHAEOLOGY  
OF THE MAAORI SETTLEMENT OF  
THE TAAMAKI VOLCANIC DISTRICT**

by

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## CONTENTS

<b>ABSTRACT</b> .....	1
<b>1. INTRODUCTION</b> .....	1
1.1 The contents	1
1.2 Other sources of information	2
1.3 Sources of information not included	2
1.4 Dating the sites	3
1.5 The use of double vowels in Maaori	3
1.6 Abbreviations used in references	3
1.7 Acknowledgements	3
<b>2. RANGITOTO AND MOTUTAPU</b> .....	4
2.1 General	4
2.2 R10/22, Pig Bay midden site (N38/21)	5
2.3 R10/25, Sunde Site (N38/24)	5
2.4 R10/26, Station Bay paa (N38/25)	7
2.5 R10/31, Station Bay terrace site (N38/30)	7
2.6 R10/38, Station Bay terrace site (N38/37)	8
2.7 R10/41, terraced ridge at Pig Bay (N38/40)	8
<b>3. PUUPUKE</b> .....	9
<b>4. TAKAPUNA (DEVONPORT)</b> .....	10
4.1 General	10
4.2 R11/97, Takapuna Paa (North Head)	10
4.3 R11/109, Takarunga Paa (Mt Victoria)	10
4.4 R11/110, Takararo Paa (Mt Cambria)	11
<b>5. HOROTIU</b> .....	12
5.1 General	12
5.2 R11/1559, Waihorotiu (the Gaol Site)	12
5.3 R11/82, Pukerangi Paa (Albert Park)	12
<b>6. OWAIRAKA (MT ALBERT)</b> .....	13
6.1 General	13
6.2 R11/20, Owairaka Paa (Mt Albert)	13
6.3 R11/1387, Oakley Site	13
<b>7. PUKETAAPAPA (MT ROSKILL)</b> .....	14
7.1 General	14
7.2 R11/19, Puketaapapa Paa (Mt Roskill)	14
<b>8. TE TAATUA (THREE KINGS)</b> .....	15
8.1 General	15
8.2 R11/18, Te Taatua Paa (Three Kings)	15

<b>9. MAUNGAWHAU (MT EDEN)</b> .....	16
<b>9.1 General</b>	16
<b>9.2 R11/17, Maungawhau Paa (Mt Eden)</b>	16
<b>9.3 R11/105, Pukekaaroa Paa</b>	17
<b>9.4 Te Wherowhero's house in the Domain</b>	18
<b>10. REMUERA</b> .....	19
<b>10.1 General</b>	19
<b>10.2 R11/15, Te Kopuke Paa (Mt St John)</b>	19
<b>10.3 R11/16, Remuera Paa (Mt Hobson)</b>	19
<b>11. ORAAKEI</b> .....	21
<b>11.1 General</b>	21
<b>11.2 R11/106, Maungaraahiri Paa ("Little Rangitoto")</b>	21
<b>11.3 R11/87, Oraakei Paa</b>	21
<b>12. TE PANE O HOROIWI (ST HELIERS)</b> .....	23
<b>12.1 General</b>	23
<b>12.2 R11/94, Te Pane o Horoiwi Paa</b>	23
<b>13. TAURERE (TAYLORS HILL)</b> .....	24
<b>13.1 General</b>	24
<b>13.2 R11/96, Taurere Paa (Taylors Hill)</b>	24
<b>14. MOTUKOOREA (BROWNS ISLAND)</b> .....	25
<b>14.1 General</b>	25
<b>14.2 R11/1100, coastal midden site</b>	25
<b>14.3 R11/39, paa on cone</b>	26
<b>14.4 R11/123, paa on lower ridge of cone</b>	26
<b>15. MAUNGAKIEKIE (ONE TREE HILL)</b> .....	27
<b>15.1 General</b>	27
<b>15.2 R11/14, Maungakiekie Paa (One Tree Hill)</b>	27
<b>16. MAUNGAREI (MT WELLINGTON)</b> .....	29
<b>16.1 General</b>	29
<b>16.2 R11/12, Maungarei Paa (Mt Wellington)</b>	29
<b>16.3 R11/214, pit site</b>	30
<b>16.4 R11/1637, 1638, gardens and settlement sites in Winstone's         quarry</b>	30
<b>16.5 R11/98, Mokoia Paa</b>	31
<b>16.6 R11/9, Tauomaa Paa (Purchas Hill)</b>	31

17.	<b>PAKURANGA</b> .....	32
	17.1 General	32
	17.2 R11/38, Ohuiarangi Paa (Pigeon Mountain)	32
18.	<b>RAROTONGA (MT SMART)</b> .....	33
	18.1 General	33
	18.2 R11/11, Rarotonga (Mt Smart)	33
19.	<b>OTAAHUHU</b> .....	34
	19.1 General	34
	19.2 R11/10, Te Apunga o Tainui Paa (McLennan Hills)	34
	19.3 R11/13, Otaahuhu Paa (Mt Richmond)	34
	19.4 R11/898, the Westfield site	35
	19.5 Fisher Road sites (Flat Rock)	36
	19.6 R11/1394, Hawkins Hill	36
	19.7 The Tamaki River sites (R11/1201 and R11/506)	37
	19.8 R11/33, Sturges Park site	37
	19.9 R11/142, Mutukaaroa (Hammins Hill)	37
20.	<b>EAST TAAMAKI</b> .....	39
	20.1 General	39
	20.2 R11/36, Te Puke o Tara Paa (Smales Mt)	39
	20.3 R11/24 Matanginui Paa (Green Mt)	39
	20.4 R11/1301, the Harris Road sites (Harris Road East, Harris Road West, and Stevenson)	40
	20.5 R11/1525, the Shaw Block	40
	20.6 Te Wharau	40
	20.7 Cryers Road Block	41
	20.8 Allens Road sites	42
	20.9 Southward sites	42
21.	<b>MAANGERE</b> .....	43
	21.1 General	43
	21.2 R11/26, Te Pane Matao Paa (Maangere Mountain)	43
	21.3 Ambury Park	44
22.	<b>IHUMATAO</b> .....	45
	22.1 General	45
	22.2 R11/31, Maungataketake Paa (Ellett's Mt) and its fields	45
	22.3 R11/30, Otuataua, R11/29, Pukeiti, and their fields	46
	22.4 R11/28, Waitomokia Paa (Mt Gabriel) and its fields	46
	22.5 R11/353, earthen banks on coast (N42/36)	47
23.	<b>PUKETUTU (WEEKS ISLAND)</b> .....	48
	23.1 General	48
	23.2 R11/27, R11/553, and R11/554, Puketutu Paa	48

<b>24. PUUKAKI and CRATER HILL</b> .....	<b>49</b>
<b>24.1 General</b>	<b>49</b>
<b>24.2 Te Hau Kapua (Crater Hill)</b>	<b>50</b>
<b>24.3 R11/665, Crater Hill Motorway Site</b>	<b>50</b>
<b>24.4 R11/609, Waokauri Creek Site</b>	<b>50</b>
<b>25. MATUKURUA (WIRI MT AND MCLAUGHLINS MT)</b> .....	<b>52</b>
<b>25.1 General</b>	<b>52</b>
<b>25.2 R11/25, Matukutuureia Paa (McLaughlins Mt)</b>	<b>52</b>
<b>25.3 R11/25, Puhinui pipeline corridor</b>	<b>53</b>
<b>25.4 R11/32, Matukutuururu Paa (Wiri Mountain)</b>	<b>53</b>
<b>25.5 R11/1187, Wiri Oil Terminal Site</b>	<b>54</b>
<b>25.6 R11/1188, Wiri Railway Quarry Site</b>	<b>55</b>
<b>26. SITES IN THE AUCKLAND AREA OUTSIDE THE VOLCANIC FIELDS</b> .....	<b>56</b>
<b>26.1 R10/41, Rahopara Paa (Castor Bay)</b>	<b>56</b>
<b>26.2 R11/35, paa at Kauri Point (Birkenhead)</b>	<b>56</b>
<b>26.3 R11/120, pit site (Parnell)</b>	<b>57</b>
<b>27. GENERAL REFERENCES</b> .....	<b>59</b>
<b>APPENDIX 1</b> .....	<b>62</b>
<b>Radiocarbon dates from archaeological sites in Taamaki</b>	<b>62</b>
<b>INDEX OF AUTHORS</b> .....	<b>68</b>

# **SOURCES FOR THE ARCHAEOLOGY OF THE MAAORI SETTLEMENT OF THE TAAMAKI VOLCANIC DISTRICT**

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## **ABSTRACT**

This is a comprehensive list of all written material on the archaeology of the Taamaki district, which (as defined in this report) includes the Auckland Volcanic Field and other nearby non-volcanic lands in and around Auckland city. The sources include not only published material, but also unpublished reports available in public collections. The list focuses on the fortified settlement sites on the volcanic cones, and the archaeological sites in the volcanic fields around the cones. All archaeological sites excavated in the Taamaki district are summarised, and an updated list of radiocarbon dates from these sites is included. The intention is to make the full range of information available to the general public, as well as to archaeologists.

## **1. INTRODUCTION**

This is first in a series of background reports for Te Mana o Te Maunga o Maangere, the education programme at Maangere Mountain being developed by Tamaki Ki Raro Trust, based at Te Puea Marae, in partnership with the Manukau City Council and the Department of Conservation. The purpose of this report is to list all written materials concerning archaeology in the Auckland volcanic zone, not only of Maangere, but also of the settlements, forts and gardens in other areas. Archaeologists have been working in Auckland since 1954, but information about their findings has not so far been known to most members of the public. When Te Mana o Te Maunga o Maangere education centre is developed, it is intended that copies of these materials will be available there for teachers and students and other visitors to consult.

### **1.1 The contents**

This report makes reference to the writings of archaeologists, both professional and amateur. Unpublished as well as published material is included, provided the unpublished items are available in a public archive or library. As will be apparent, unpublished material is a highly valuable, indeed an essential, resource in reference to the archaeological sites of Taamaki.

The area with which this report is concerned is the central Auckland urban area, referred to here as "Taamaki" (Fig. 1). This comprises both the Auckland Volcanic Field (Kermode 1992), which was the focus of the Maaori settlement, and other nearby non-volcanic land which was also to some extent occupied by the Maaori. "Taamaki" is a term widely used today by Maaori speakers to refer to the Auckland city area, and I

have used it in preference to "Auckland" to emphasise that this report is concerned with the pre-European Maaori settlement, not the settlement that followed the establishment of Auckland in 1840. Taamaki is derived from a more specific place name: "Taamaki Makaurau" - Taamaki desired by many - which refers specifically to the Auckland isthmus (Simmons 1980, Sullivan n.d.), the area of land between the Manukau and Waitemata harbours.

The focus of this report is the volcanic cone paa and the archaeological sites in their surrounding volcanic fields, and therefore the references are organised according to 25 volcanic fields and the 35 cones they surrounded, with paa and other sites sharing the same field listed together. Within these parameters, the report focuses particularly on the cone paa, the 44 sites in the volcanic zone that have been archaeologically excavated, and archaeological studies of field evidence. The list also includes references for the few sites outside the volcanic fields, where archaeological studies have been carried out.

### **1.2 Other sources of information**

A few other sources of information about the cones and volcanic fields that have proved particularly useful to archaeologists are also included:

- General geological references, which have assisted in establishing the probable extent of former gardens and fields systems where there is now city.
- The collection of photographs taken in 1899 by T. Boscawen, a surveyor who took a particular interest in the cone paa.

### **1.3 Sources of information not included**

Other sources of information, such as photographs, maps, site records, and Maaori traditional history, are also useful in fully understanding the Maaori occupation of Taamaki, but these are beyond the scope of this report.

- Early photographs, aerial photographs, paintings, drawings and maps - Research on these topics is well under way and it is planned to present this information in separate reports.
- New Zealand Archaeological Association Site Record Files - Much additional information on archaeological sites in and near the volcanic zone is stored in the files. The archaeological references in this file are included here, but other non-archaeological material, such as newspaper items, discussions of traditional history and photographs, is held in the NZAA files. This material is available to the public through the NZAA Filekeeper, who can be contacted at the Auckland Conservancy Office of the Department of Conservation (Phone 307-9279 for an appointment). More than a thousand sites have been recorded in the Auckland area.
- Maaori traditional history - The topic of traditional Maaori history is not included here, as this is a different kind of information, requiring different skills to those of archaeology. This important subject will be addressed separately by the Maaori partners in the Te Mana o Te Maunga o Maangere programme. The only exceptions in the present list are some papers by Agnes Sullivan, an archaeologist who has studied written Maaori texts of Taamaki traditions as a

part of her archaeological research, and David Simmons' publications on the George Graham list of placenames.

#### **1.4 Dating the sites**

In the brief descriptions of archaeological investigations <sup>14</sup>C dates taken from material from excavations are discussed. These dates are listed in detail in the Appendix. The dates have been calibrated according to international standards (McFadgen and Manning 1989). As a result, the dates are not all consistent with earlier reported datings, but should be considered a correction of the earlier datings.

It should be emphasised that radiocarbon dating does not give a precise date, but instead an age range, during which the dated event occurred. The interpretation of the dates depends very much on their archaeological contexts in particular sites.

#### **1.5 The use of double vowels in Maaori**

For clarity and ease of use in word processing, and because it is the policy of the Maaori partners of the Te Mana o Te Maunga o Maangere project, double vowels are used in the following text. However, where referring to published and other written material, the usage of the author is retained.

#### **1.6 Abbreviations used in references**

AINZ	Archaeology in New Zealand
DoC	Department of Conservation
JPS	Journal of the Polynesian Society
RAIM	Records of the Auckland Institute and Museum
NZHPT	New Zealand Historic Places Trust
NZAAN	New Zealand Archaeological Association Newsletter
NZJA	New Zealand Journal of Archaeology

#### **1.7 Acknowledgements**

Thanks to many colleagues who contributed references to this list, made helpful suggestions about the format and pointed out errors. However, any errors of fact or erroneous opinions remaining are my own responsibility.

## 2. RANGITOTO AND MOTUTAPU

### 2.1 General

Rangitoto is the most recent of Auckland's volcanic cones, created by eruptions, some time between AD 1375 and 1430 (Nichol 1988: 461). Dating of material immediately under and on top of the volcanic ash from the eruptions has provided a precise date for this eruption. Arguments for a much more recent date are based on the idea that the vegetation of Rangitoto is much younger than 500-600 years and on a more recent radiocarbon date (ANU-258). The latter material is identified as uncharred wood under lava, which suggests it came from post-eruption vegetation.

Because it lacked garden soils, Rangitoto was not used for general habitation, but was instead a resource area for fishing, collecting, and hunting, and its clefts and caves were used for burials. A 19th century sketch of Rangitoto shows a ditch and bank on its crater rim (see Davidson 1987a: 12), but these features have not been relocated and Janet Davidson suggests this may be because of ground disturbance during World War II. Other features characteristic of cone paa, such as terraces, have not been recorded on the cone.

Motutapu Island is included in this section because it is adjacent to the volcanic cone Rangitoto, even though it is not itself volcanic in origin. However, the formation of Rangitoto was accompanied by the mantling of Motutapu with volcanic ash, creating garden soils where mainly clay soils existed before. Earlier occupation, prior to the eruption of Rangitoto, related to the use of the island as a base for fishing in the Hauraki Gulf, for hunting, and to the use of the tool quality greywacke present along the north western coast.

Motutapu is notable as one of the archaeologically best surveyed areas in the country, and six sites have been archaeologically excavated, one of them, the Sunde Site, twice. The excavated sites include two beach front settlements and a terraced ridge on the northwest coast of the island and a paa and two terraced sites at Station Bay.

Coster, J. and Spring-Rice, W 1984. *History, archaeology and site management on Motutapu and Rangitoto*. Department of Lands and Survey, Auckland.

Davidson, J. 1970a. Survey of archaeological sites on Motutapu Island. *RAIM* 7: 1-12.

1971. Fieldwork on Motutapu Island, Hauraki Gulf. *NZAAN* 14(3): 80-81.

1978a. The prehistory of Motutapu Island, N.Z.: five centuries of Polynesian occupation in a changing landscape. *JPS* 87(4): 327-337.

1987a: 12 (see 27.).

1987b. Fourteen years of site recording on Motutapu Island: a cautionary tale. *NZAAN* 30(4): 227-238.

Law, R.G. 1975. Radiocarbon dates from Rangitoto and Motutapu, a consideration of dating accuracy. *New Zealand Journal of Science* 18: 441-451.

1987. Site survey method and standards: a check survey of Motutapu Island. *NZAAN* 30(1): 16-26.

Searle 1981: 169-172 (see 27.).

## **2.2 R10/22, Pig Bay midden site (N38/21)**

This is a deeply stratified settlement site, now largely eroded away by the sea. It contained numerous layers of interbedded ash and dune sediments and occupation deposits, overlying 46 cm of Rangitoto ash. A piece of worked greywacke was found beneath the ash, but the occupation layers are all on top of, and therefore later than the volcanic ash. A dating from a layer thought to relate to the final Archaic adze making at Motutapu is between AD 1483 and 1661 (NZ-221).

As at the Sunde Site, the Pig Bay site was a settlement of people fishing and hunting and making use of the adze quality greywacke that occurs on the beach there. The site had numerous layers of cooking debris and ovens, and flakes and roughouts and broken adzes from the manufacture of adzes from the local greywacke rock. The adzes in the early layers were typical Archaic ("moa-hunter") style tools, but later layers have fewer of the distinctive types, showing a gradual change between the Archaic and later Maaori adze forms. The occupation layers also contained other kinds of artefacts, including the distinctive one piece Archaic fishhooks.

Excavated, J. Golson, 1958-59.

Brothers, R.N. and Golson, J. 1959. Geological and archaeological interpretation of a section in Rangitoto ash on Motutapu Island, Auckland. *New Zealand Journal of Geology* 2(3): 569-577.

Golson, J. and Brothers, R.N. 1959. Excavations at Motutapu. *NZAAN* 2(2): 5-8.

Smith, IWG 1981. Mammalian fauna from an archaic site on Motutapu Island, New Zealand. *RAIM* 18: 95-103.

## **2.3 R10/25, Sunde Site (N38/24)**

This is another coastal settlement site distinguished by deeply stratified midden layers, but it differs from the Pig Bay site in having substantial evidence of occupation prior to the Rangitoto ash fall, as well as in more recent times. As at the Pig Bay Site, the Sunde Site was occupied by people who made use of the adze quality greywacke that occurs naturally on the beach in front of the site.

The Sunde Site has seen two major excavations, first in 1963 and again in 1981-82. The site was illustrated in an Auckland Institute and Museum exhibit, and an interpretation of its appearance prior to the eruption of Rangitoto will be published in Nigel Prickett's forthcoming guide book to Auckland sites.

The 1963 investigations consisted of excavations in the deepest part of the midden, to establish the chronology and cultural change of the site, in particular to attempt to document the change between the Archaic material culture and the Classic Maaori material culture. Prior to the eruption of Rangitoto, the residents made adzes from the local greywacke, made bone fishhooks (shown by the broken tabs of bone and drill

points and awls), and used them to catch fish nearby. Sea mammals and forest birds also featured in their diet.

As mentioned above, radiocarbon dates have been obtained from these excavations, from deposits immediately below the thick volcanic ash layer, and another from deposits immediately above the ash (see Appendix 1 for details). Nichol (1988: 461) has analysed these dates and concluded that the ashfall occurred between AD 1375 and 1430.

The 1963 excavations defined five periods of occupation, with the earliest, beneath the volcanic ash, and two subsequent to the ash, containing typical Archaic material culture. The fourth period of occupation was not well-represented in the excavations, and the fifth showed this area of the site being used only for cooking.

Leaves and other vegetation trapped under the ash fall showed that the island was forested prior to the eruption, and the investigations in 1981-82 found that the residents also made gardens at the Sunde Site in the new volcanic ash. These investigations were extensive, defining the perimeter of the occupation site and the range of activities that went on there. The results add considerably to the evidence of the 1963 research. The first occupation before the ash showed adze making and fishing, hunting and collecting. There were signs of people returning to the site in between a series of ash showers, including footprints of humans and dogs. Part of the site showed attempts to make gardens in between the ash showers, but storage pits were not present until after the ash falls ceased. There is evidence that the site was gardened subsequently, with local fish and shellfish in the middens, but the forest hunting was no longer in evidence, presumably because the forest had been destroyed or cleared. The final stage of occupation of the Sunde Site was drainage by European farmers.

Excavated 1963, Scott.

Excavated 1981-82, Nichol.

Byrne, D. 1973. Prehistoric coprolites: a study of human and dog coprolites from prehistoric archaeological sites in the North Island of New Zealand. Unpublished MA thesis, Department of Anthropology, University of Auckland.

Clark, C. and Duff, L. 1974. Midden remains from an eroded block of Rangitoto ash. In Sullivan 1974a: 51-52 (see 27.).

Davidson, J. 1972. Archaeological investigations on Motutapu Island. *RAIM* 9: 1-14.

1974a. Radiocarbon dates from the Sunde site, Motutapu Island. *RAIM* 11: 9-10.

1977. Final report on excavations at the Sunde site. 2p. NZAA Site Record File, DoC, Auckland.

Grange, C. 1974. A comparison between shellfish species seen today and those found at the Sunde site, Motutapu Island. In Sullivan 1974a: 53-56 (see 27.).

Nichol, R. 1981. Preliminary report on excavations at the Sunde Site, N38/24, Motutapu Island. *NZAAN* 24(4): 237-256.

1988. Tipping the feather against a scale: archaeozoology from the tail of the fish. Unpublished PhD thesis, Department of Anthropology, University of Auckland.

Scott, S.D. 1970. Excavations at the Sunde site, Motutapu Island, New Zealand. *RAIM* 7: 13-30.

Smith, IWG 1985. Sea mammal hunting and prehistoric subsistence in New Zealand. Unpublished PhD thesis, Anthropology Department, University of Otago. Pp. 267-274.

#### **2.4 R10/26, Station Bay paa (N38/25)**

This is one of three sites at Station Bay excavated between 1967 and 1971 under the auspices of the Auckland Institute and Museum. This site is on a steep narrow headland on the northeast side of the bay, heavily defended by transverse and lateral ditches and banks. The interior is scarped and terraced, and there is a group of pits immediately outside the defensive ditch. Excavation showed that the headland had been occupied prior to the construction of the defences, with the remains of storage pits where the defences were later constructed. Two radiocarbon dates give conflicting evidence; both are from the fill of disused store pits inside the paa. One, a collagen date from human bone, suggests the burial dates to between AD 1445 and 1655 (NZ-4348). The other dating, on charred fern in an adjacent pit, gives a date of between AD 1803 and 1940 (NZ-4349) (at 68% confidence). Janet Davidson thinks that the charred fern date is likely to be correct, particularly given the inconsistencies in the dating of human bone (Anderson 1991).

Excavated 1970-71, Davidson and Sullivan.

Davidson 1972. (see 2.3).

Davidson, J. 1978c. Radiocarbon dates for three sites at Station Bay, Motutapu Island. *RAIM* 15: 15-16.

Houghton, P. 1977. Prehistoric burials from recent excavations on Motutapu Island. *RAIM* 14: 37-43.

Sullivan, A. 1972a. Excavation of a pit at Station Bay, Motutapu Island. *RAIM* 9: 27-60.

#### **2.5 R10/31, Station Bay terrace site (N38/30)**

This is one of 9 "undefended" settlement sites recorded around Station Bay, two of which were excavated in conjunction with the investigation of the paa (see above). This site is a group of terraces on a gently sloping spur above the bay. One terrace was excavated, showing it had been levelled to provide an area for a house, 2 storage pits, and a courtyard. There was also evidence of cooking, suggesting general occupation took place there. A radiocarbon dating of bone from a burial pit at this site indicates the person probably died some time between AD 1379 and 1443 (NZ-4347). The site was occupied prior to the burial, and the dating is consistent with the excavator's interpretation that the site was occupied after the eruption of Rangitoto. The dating of human bone is inconsistent, see remarks for site R10/26 above, and Janet Davidson thinks this dating is too early.

Excavated, 1967-68, 1970-71, Leahy.

Allo, J. 1970. Analysis of midden from two sites on Motutapu Island, New Zealand. *RAIM* 7: 83-91.

Davidson 1978c. (see 2.4).

Houghton 1977. (see 2.4).

Leahy, A. 1970. Excavations at N38/30, Motutapu Island, New Zealand. *RAIM* 7: 61-82.

1972. Further excavations at N38/30, Motutapu Island, New Zealand. *RAIM* 9: 15-26.

## **2.6 R10/38 Station Bay terrace site (N38/37)**

This is another terraced site, on a broad ridge in the centre of Station Bay, excavated in conjunction with R 10/26 and R10/38. Three stages of occupation were found in the two parts of the site excavated, first with pit storage, then with cooking, and finally another phase of pit storage. Three rectangular structures were excavated, with grooves, probably to hold the walls, around the perimeter and with central posts at either end. These could be the evidence of houses, but only one contained domestic debris on its floor.

The site has been dated by 6 radiocarbon samples, three of which were charcoal underneath the Rangitoto ash and are consistent with the dating of this event at the Sunde Site and Pig Bay site, that is some time between AD 1375 and 1430. The three datings for the human occupation of this site include charcoal in the base of a pit dated to between AD 1291 and 1417 (NZ-1164), and charcoal from an earth oven in another pit dated to between AD 1633 and 1956 (NZ-1168). This site was expected to have been occupied at the same time or slightly later than the other terrace site excavated (R10/31), and the dates from the two pits were expected to be similar, which they were not. A bone collagen dating from a burial in a pit, between AD 1414 and 1524 (NZ-4346), is, according to the excavator, probably too early, and probably due to the inconsistency of human bone dates (see remarks for R10/26).

Excavated 1967-68, Davidson.

Allo 1970. (see 2.5).

Davidson, J. 1970b. Excavation of an undefended site on Motutapu Island, New Zealand. *RAIM* 7: 31-60.

Davidson, J. 1972. (see 2.3).

1974c. Further identifications of sources of obsidian flakes from N38/37 on Motutapu Island, New Zealand. *RAIM* 11: 11-12.

Davidson 1978c. (see 2.4).

Houghton 1977. (see 2.4).

Ward, G.K. 1974. Source of obsidians from the Motutapu undefended site, N38/37. *RAIM* 11: 13-4.

## **2.7 R10/41, terraced ridge at Pig Bay (N38/40)**

This site consists of about 20 terraces arranged in two groups on a ridge some distance inland from the beach, south of Pig Bay. The lowest terrace was archaeologically excavated. It was found to be a 9 by 3 m natural terrace, somewhat flattened to provide usable habitation space, with haangi and firepits, but no other features or artefacts present.

Excavated 1972, A. Leahy.

Leahy, A. 1987. Excavations at Site N38/140, Motutapu Island, Auckland. *NZAAN* 29(3): 160-166.

### **3. PUUPUKE**

This area contains three tuff craters, two of which open onto Shoal Bay and were tidal before they were reclaimed, and the third of which holds a freshwater lake, Puupuke Moana. No archaeological investigations have yet been done in this area, other than limited site recording along the coastline. The volcanic soils probably attracted occupation for gardening, as did the fishing and boat access at Shoal Bay. A large number of place names related to this district were collected by George Graham (Simmons 1980, see 27.), reflecting its importance for fishing. Awataha and an area west of Takapuna Beach supported Maaori settlements in the 19th century.

Hochstetter 1864: 187-188 (see 27.).

Maingay, J. 1980. Site surveys - Northcote, Devonport and Takapuna, 1979-80. Class paper, 03.308, Anthropology Department, University of Auckland.

Searle 1981: 72-77 (see 27.).

## 4. TAKAPUNA (DEVONPORT)

### 4.1 General

There were originally three scoria cones in the Takapuna field. Their volcanic fields were not extensive, the only substantial basaltic flow being south of Takarunga. The area has not been intensively surveyed for archaeological features, other than at North Head and along the coastline. Archaeological excavations that have been done so far include a brief investigation on Takarunga (Sewell 1985, see 43) and current investigations on Takapuna (see 4.2).

Survey 1980 by T. Connor, P Connor, and J. Maingay.

Mapping of cone paa, based on aerial photos 1984, Walter.

Hochstetter 1864: 188-190 (see 27.).

Searle 1981: 67-83 (see 27.).

Searle and Davidson 1983: 24 (see 27.).

Walter, R. 1985. *Survey of the Devonport volcanic cones*. NZHPT, Auckland 1985/11.

Wright, A. 1974. Stone adzes from Devonport (Mt Victoria), Auckland. In Sullivan 1974a: 32-37 (see 27.).

### 4.2 R11/97, Takapuna Paa (North Head)

This prominent volcanic cone was first a Maaori paa, but because it was reconstructed in historic times as a European fort, only a little of the original Maaori site has survived. Nevertheless it is a traditionally very important site. Detailed investigations of the site are currently (1993) under way, under the direction of D. Veart.

Mapped from aerial photos, 1984, Walter.

Survey 1986, C. Phillips.

Survey 1989-91, D. Veart.

Excavation of fort, 1992, J. Mitchell.

Excavation of European fort 1993, D. Veart, in conjunction with a search for concealed tunnels, in co-operation with J. Earnshaw.

Boscawen 1899: 23/L, 25/L (see 27.).

Hochstetter 1964: 189 (see 27.).

Phillips, C. 1986. Archaeological field survey of North Head Historic Reserve. Department of Lands and Survey, Auckland. 4p.

Veart, D. 1990. North Head: the development of a fort. *Science and Research Internal Report No.79*. Department of Conservation, Auckland.

### 4.3 R11/109, Takarunga Paa (Mt Victoria)

A large proportion of this paa has survived, in spite of 150 years of European use and reconstruction as a signal station, a European fort, and a radio station.

A brief archaeological excavation was done when the foundations for a new post office mast were dug on the northern edge of summit, adjacent to the reservoir. It was

thought unlikely that any evidence of the Maaori site would remain, as the summit has been flattened. However, at a depth of 90 cm a digging machine encountered a black soil with midden, thought to have been associated with the former paa. It was very consolidated, possibly a well-used living surface, and the layer contained many pieces of charcoal, fishbone and shells. Six features were found in the area then archaeologically excavated (2.4 X 1.7 m); a store pit, four postholes, and a long narrow trench, a drain or a bedding trench for palisading.

Partly mapped 1980, Maingay, Connor and Connor.

Mapped from aerial photos 1984, Walter.

Excavated 1985, Sewell.

Boscawen 1899: 27/L (see 27.).

Sewell, B. 1985. Excavation of Takarunga (Site N42/102), Mt. Victoria, Devonport. NZHPT, Auckland 1985/6.

1988. Excavations on Takarunga (Mount Victoria) R11/109. *NZAAN* 31(3): 182-188.

Wright 1974. (see 4.1)

#### **4.4 R11/110, Takararo Paa (Mt Cambria)**

This former small cone, next to Takarunga, is now almost entirely destroyed by quarrying. No archaeological records have been made of it, but from early photographs and paintings it is apparent that it had terraces and garden features (walls and mounds).

Boscawen 1899: 25/L, 25/R (see 27.).

Searle 1981: 79, Fig. 5.8 (see 27.).

## 5. HOROTIU

### 5.1 General

The Horotiu volcanic field is in the centre of the city, partly preserved in Albert Park, but most has been destroyed or covered over with buildings. There was formerly a small scoria cone next to the present Albert Park (Searle 1981: 85). Horotiu refers to both this area and the district of the Horotiu Stream, which used to run down the present route of Queen Street from above the Town Hall.

Searle 1981: 84--86 (see 27.).

### 5.2 R11/1559, Waihorotiu (the Gaol Site)

Archaeological excavations of the site of the 19th century gaol at the corner of Queen and Victoria Streets also revealed signs of an earlier Maaori occupation from which a radiocarbon dating of between AD 1360 and 1561 (Wk-1142) has been obtained from shell in a general occupation deposit on the bank of the stream. The finds related to the Maaori occupation include koo (digging sticks), ketu (small weeding sticks), red pigment stones, a plank of tootara, a possible adze handle, midden (shell, charcoal and haangi stones), and two objects of flax, one a woven item and the other a knotted length of fibre (Best 1992: 122-136). This swampy area on the periphery of the volcanics was probably used for gardens, possibly by the residents of Pukerangi Paa (see 5.3). Leaf litter in the bottom of the Waihorotiu stream has been dated to between AD 1216 and 1321 (Wk-1143), and Simon Best thinks that it may indicate forest clearance for gardening by that date (Best 1992: 135).

Excavation 1987, Best.

Best, S. 1989. The first gaol: archaeology in the central business district of Auckland. Pp. 104-105 in Trotter, M. and McCulloch, B.: *Unearthing New Zealand*. Government Printer, Wellington.

1992. The Queen Street Gaol. Auckland's first courthouse, common gaol, and house of correction. R1 1/1559. Final archaeological report. *Auckland Conservancy Historic Resource Series No. 2*. DoC, Auckland.

### 5.3 R11/82, Pukerangi Paa (Albert Park)

No archaeological evidence of this paa has yet been found in the three archaeological investigations carried out in Albert Park on the site of the 19th century Albert Barracks. Possibly the paa was located on the now destroyed scoria cone (see 5.1).

Simmons 1980: 14 (see 27.).

## **6. OWAIRAKA (MT ALBERT)**

### **6.1 General**

The volcanic fields associated with Owairaka were extensive, stretching west and north to the shores of the Waitemataa Harbour. The field systems were destroyed by urban development before they could be archaeologically studied, but in the 1930s J. Diamond (pers. comm.) observed walled gardens similar to those found at Wiri.

Hochstetter 1864: 192-193 (see 27.).

Searle 1981: 96-97 (see 27.).

Sullivan 1972a: 154 (see 27.).

### **6.2 R11/20, Owairaka Paa (Mt Albert)**

Much of this site remains in good condition, in spite of the fact that its crater has been seriously damaged by quarrying and a watertank has been built into its western side. The surviving archaeological features are in a public reserve and have been mapped, but no archaeological excavations have yet been done on this site.

Survey 1974, Jackson.

Survey 1983, Spencer.

Boscawen 1899: 12/L, 52/L (see 27.).

Davidson 1987a: 7 (see 27.).

Jackson, E. 1974. Site survey of Owairaka. In Sullivan 1974a: 25-26 (see 27.).

Searle and Davidson 1983: 12 (see 27.).

Spencer, J. 1984. The changing landscape of Owairaka. *NZAA* 27(1): 43-55.

Sullivan 1975b: 71 (see 25.4).

### **6.3 R11/1387, Oakley Site**

This site was an area on the northwest periphery of the Owairaka basaltic fields, investigated prior to the construction of extensions to the neighbouring Carrington Technical Institute. Although any former rock constructions had been removed, this was recognised as important as one of the last remaining fragments of the Owairaka volcanic fields.

The investigation consisted of field survey of surface evidence and test pitting, and five terraces, two shell scatters and a historic stone wall and a rock alignment were recorded. These, together with a number of shell middens along the banks of the Oakley Creek, and shell scatters and store pits away from the stream, indicate this area was formerly used for gardening, and probably shellfish was eaten by the people during gardening.

Survey and test excavations 1987, Fredericksen

Fredericksen, C. 1987. Archaeological survey of Site R11/1387, Oakley Psychiatric Hospital Grounds, Mt Albert. *NZHPT*, Auckland 1987/5.

## **7. PUKETAAPAPA (MT ROSKILL)**

### **7.1 General**

The fields related to Puketaapapa were extensive, to the north and northwest of the cone. No archaeological study has been possible, due to the destruction of the fields by urban development.

Hochstetter 1864: 192 (see 27.).

Searle 1981: 98-99 (see 27.).

### **7.2 R11/19, Puketaapapa Paa (Mt Roskill)**

Much of the cone paa is in relatively good condition, but there has been major damage from the construction of a water tank on the summit and from the construction of an access road on the northern side. This paa is in a public reserve.

Archaeological "rescue" excavations were carried out on the summit prior to the construction of the water reservoir. However, the results of this work were not analysed or written up at the time, and in 1980 Lady Fox wrote a brief report based on information then available.

Archaeological excavations were carried out on two parts of the summit of the cone. Postholes from a section of double palisading, and a concentration of intercutting store pits, indicated two or three periods of construction. The finds included basalt and greywacke adzes and chips of adzes, sandstone polishers, and two small roundels of baked clay, probably beads. A local resident donated a small carved wooden human figure she had found on the summit of Puketaapapa. Four radiocarbon dates indicate the site was probably occupied between the AD 1400s and 1700s (see Appendix 1).

Excavations 1961-62, R.C. Green, L.M. Groube and W.F. Shawcross.

Student mapping project 1979, 1980, 1982, Department of Anthropology, University of Auckland.

Boscawen 1899: 22/L, 22/R (see 27.).

Fox, A. 1980. The pa on Mt Roskill, Auckland (N42/11): dating evidence from the 1961 excavations. *RAIM* 16: 45-61.

1981. Obsidian from excavations in Auckland and Hawkes Bay. *NZAAN* 15(3): 208-209.

Grace, C. and Maingay, J. 1979. Survey of Mt Roskill. Class paper, Department of Anthropology, University of Auckland. 10p.

Green 1970a: 38-40 (see 27.).

Searle and Davidson 1983: 11 (see 27.).

Sewell, B. 1984a. Puketapapa - Mt Roskill. Draft contribution to Mt Roskill Management Plan. NZHPT, Auckland. 9p.

Shawcross, W 1962. Excavations on Mt Roskill. *NZAAN* 5(1): 81-83.

Sullivan 1975b: 71 (see 25.4).

## **8. TE TAATUA (THREE KINGS)**

### **8.1 General**

The Te Taatua field consisted of a large tuff ring, enclosing a series of scoria cones, with basaltic flow toward the northwest and tuff on the other three sides. There are a number of accounts of the former presence of Maaori walls at Te Taatua, including the suggestion that some of these were defensive.

Hochstetter 1864: 192 (see 27.).

Searle 1981: 100-102 (see 27.).

Sullivan 1972a: 153 (see 27.).

### **8.2 R11/18, Te Taatua Paa (Three Kings)**

This site consisted of three related small paa on the most prominent peaks of the cones. Only one of these now remains in a public domain, the other two having been destroyed by quarrying. The features of the remaining site are in good condition under heavy scrub, although the summit has been destroyed by the construction of a water tank. The site has been mapped both from aerial photos and from field survey of the remaining area. No archaeological excavations have been done, but the digging of a pipeline was observed and recorded by archaeologists.

Majority of cone mapped 1979, C. Chambers, from 1940 aerial photo (site almost completely obscured by scrub).

Recording of archaeological features on Big King disturbed by pipeline, 1981, Grace and Kunin.

Mapping of Big King 1989, J. Robinson and A. Slocombe.

Boscawen 1899: 10/R, 24/L, 24/R, 26/L, 26/R, 28/L., 28/R, 58/L, 58/R (see 27.).

Chambers, D. 1981. Big King - inspection of a ditch. DoC, Auckland. (Unpublished manuscript) 2p.

Davidson 1987a: 11 (see 27.).

Grace, C. and Kunin, G. 1981. Survey of water pipeline on Big King Mountain at Three Kings. NZHPT, Auckland 1981/10.

Simmons 1987: 52-54 (see 27.).

Sullivan 1975b: 71 (see 25.4).

## 9. MAUNGAWHAU (MT EDEN)

### 9.1 General

The volcanic fields surrounding Maungawhau cover a large area, now almost entirely covered by houses, factories and businesses. The features - settlements and gardens - that were formerly present are therefore largely destroyed, although some subsurface deposits and features will still be present in some places.

The Domain volcanic area is geologically a separate eruption centre, but is contiguous with the Mt Eden field and within a kilometre of Maungawhau. For these reasons it is included here as a part of the Maungawhau field. The stone walled field systems (Sullivan 1972) associated with other cone paa extended to the periphery of basaltic fields, and in some cases beyond, so it is possible that the Domain lands were at least in some early times used by the Maungawhau community.

Adam, J. and Bulmer, S. (in prep.) *Archaeological sites in the Auckland Domain: a review*. Auckland Garden History Society, Auckland, and Science and Research Division; Department of Conservation, Wellington.

Auckland City Council. [n.d.] *An historical guide to the Auckland Domain*. Auckland. 14p.

Bulmer, A. 1982: 15-19 (see 27.).

Hochstetter 1864: 191-192 (see 27.).

Searle 1981: 86-88, 99-100, 102-107 (see 27.).

Sullivan 1972a: 153 (see 27.).

### 9.2 R11/17, Maungawhau Paa (Mt Eden)

This is the tallest of the cones on the Auckland isthmus and is one of the three largest cone paa in Taamaki. It remains a very impressive site in spite of the fact that it is scarred with a number of constructions. On its flanks are three quarries, roads and a restaurant, one of its peaks has been destroyed by the construction of a water reservoir, and its summit has been heavily damaged by a telecommunications facility, a concrete lookout platform and a parking area.

The site has been archaeologically mapped in detail and brief archaeological excavations were carried out in 1981 in three areas, when the Mt Eden Borough Council repaved the summit carpark and dug stormwater drains in a terrace immediately below the summit and at the northern end of the site, next to the intersection of the roads to the summit. Although it had been anticipated by Council that no archaeological features would have survived on the summit, this was not the case. The lookout platform rests on former ground surface and probably covers over many archaeological features, and a variety of features survived under the paving. These included storepits, fireplaces and postholes from substantial buildings, and the outer edge of the summit was heavily palisaded. Shell in the deep fill of one of the storepits has been dated to between AD 1530 and 1668 (NZ-7943). The burnt area left by the victory bonfire at the end of World War I was also found. The trench into the terrace below the summit showed

deeply stratified deposits, similar to those archaeologically excavated on Maungakiekie (see 15.2).

The archaeological excavation at the northern end of the Mountain showed this area was used for habitation. A stone edged terrace, fireplaces and oven pits were found, none of which was evident on the ground surface. Shell filling in a feature in the natural subsoil has been dated to between AD 1529 and 1652 (NZ-7944) and midden layer on top of cooking features dates to between AD 1531 and 1659 (NZ-7945).

Student mapping project 1978, Department of Anthropology, University of Auckland. Field checked and revised by A. Fox.

PEP project 1978-80, J. Mijalevic, collated student maps.

PEP project Mt Eden Borough Council, 1980, L. Goodliffe, field checked map.

Excavations 1981, S. Bulmer, during Council repaving of summit parking lot and construction of stormwater drains, report in prep.

Excavation of burial eroding from a scarp near summit 1984, D. Sutton and R. Foster.

Best 1927: 16-20 (see 27.).

Boscawen 1899: 14/L, 14/R, 16, 21/R, 30/L., 30/R, 32/L, 33/L, 34/L, 34/R, 36, 43/R, 52/R (see 27.).

Bulmer, S. 1982a. Rescue excavations, 1981, at Maungawhau, a 17th century Maori town. A preliminary report. Paper presented to NZAA Conference, New Plymouth. 9p.

1986a: Archaeological description. Pp. 79-83 in *Management plan, Maungawhau (Mt Eden)*. Mt Eden Borough Council, Auckland.

Davidson 1987a: 7, 10 (see 27.).

Foster, R. 1984a. Mt Eden burial report. NZHPT, Auckland 1984/4. Restricted circulation.

Fox 1977: 3-7 (see 27.).

1983: 14-16 (see 27.).

Goodliffe, L. 1980. Vegetation and erosion on Mt Eden. (Notes prepared for Mt Eden Borough Council). 20p.

Keen, C. and Price, A. 1983. Comparison between north and south facing slopes of 2 volcanic cone paa sites (Mt Eden and Mt St John) using a survey technique pertinent to archaeology and testing its usefulness. Class project, 03.325, Department of Anthropology, University of Auckland.

Searle 1981: 102-107 (see 27.).

Searle and Davidson 1983: 6-7 (see 27.).

### **9.3 R11/105, Pukekaaroa Paa**

This site is on a low scoria hill, to the south of the Winter Gardens in the Domain. A newspaper article (Anonymous 1942) refers to it as Pukekawa Paa, and reports that Te Wherowhero lived there, while Graham (in Simmons 1980: 26-27) names it Pukekaaroa. In 1940 Princess Te Puea Terangi planted a totara tree on the site in memory of her great grandfather, Potatao Te Wherowhero, who lived in the Domain. It marks

the place where Ngapuhi led by Hongi Hika and Tainui, led by Te Wherowhero made their final peace in 1828. It also commemorates the association of the Maori people with the founding of Auckland. In 1942 a palisade caved at Ngaruawahia was placed around the totara tree (Auckland City Council [n.d.], see 9.1).

Although it has been recorded as totally destroyed, some features, such as a stone edged terrace on the western side, probably relate to the paa. No archaeological excavations have been carried out at this site.

Anonymous 1942. Newspaper article, 28 January 1942. In Richardson Collection Album No. 4. Auckland Institute and Museum Library, Auckland.

Boscawen 1899: 39/R, 41/L, 41/R (see 27.).

Searle 1981: 86, 88, Figs. 4.12, 5.13 (see 27.).

Sewell and Macdonald 1981: 11-12 (see 27.).

Simmons 1980. (see 27.).

#### **9.4 Te Wherowhero's house in the Domain**

As mentioned above, Te Wherowhero lived at Pukekaaroa Paa, and there are three other different locations indicated as well. There are a number of references to the fact that Governor Grey built a house in the Domain in 1845 for Te Wherowhero, and it is shown on an 1860 map (Baber 1860) near to and northwest of the domain ponds (Site R11/207). However, a newspaper article (Anonymous 1942) reports that it was halfway up the hill from Stanley Street, where archaeological evidence of a Maori house site, a stone edged hearth and other material, was disturbed by Domain workers (R11/1133). A third house site near the Domain Road has been reported by D. Simmons (1992 pers. comm.). Te Wherowhero continued to live in the Domain until 1858 (Auckland City Council [n.d.]).

Site survey 1981-82, Student Community Service group.

Anonymous 1942. (see 93).

Baber, James 1860. Map of Auckland Park. S013. Department of Survey and Land Information, Auckland.

Bulmer, A. 1982: 15-18 (see 27.).

## 10. REMUERA

### 10.1 General

The medium-sized scoria cones, Remuera and Te Kopuke, are discussed here together as they are adjacent. Remuera had a small area of basaltic fields, but Te Kopuke was surrounded by flows from Maungakiekie. No archaeological records have been made of pre-European field systems in this area. There were Maaori settlements and gardens nearby in the 1800s.

Bulmer, A. 1982: 7-9 (see 27.).

Hochstetter 1864: 194 (see 27.).

### 10.2 R11/15, Te Kopuke Paa (Mt St John)

The upper part of Te Kopuke Paa is in relatively good condition in a public reserve, aside from damage from World War II entrenchments and an observatory. Housing has encroached about halfway up the outer slopes of the site. The archaeological features on the remaining site has been mapped in detail. No archaeological excavations have been carried out on this site.

Student mapping project 1975-76, Anthropology Department, University of Auckland. Collated and field checked by A. Fox, 1977.

Boscawen 1899: 7/L, 11/R, 12/R, 13/L, 13/R, 15/L (see 27.).

Bulmer, S. 1983a. Archaeology. In *Mt St John Domain First Approved Management Plan, Section 1.3*. Mt St John Domain Board, One Tree Hill Borough Council, Auckland.

Fox 1977: 9-10 (see 27.).

1983: 14-16 (see 27.).

Keen and Price 1983. (see 9.2).

Searle 1981: 107-108, Fig. 5.21 (see 27.).

Searle and Davidson 1983: 10 (see 27.).

Sullivan 1975b: 70 (see 25.4).

### 10.3 R11/16, Remuera Paa (Mt Hobson)

Remuera Paa was one of the first cone paa to be mapped in detail by archaeologists. In spite of a large water reservoir in one part of its summit, a road to the reservoir that runs through the paa, and housing encroaching on its flanks, a substantial part of the paa remains in relatively good condition in public reserve. No archaeological excavations have been done on the site.

Surveyed and mapped 1964, by P French, M. Nicholls and colleagues. Map field checked and revised by A. Fox, 1977.

Boscawen 1899: 1/L, 1/R, 3/L, 3/R, 5/L, 5/R, 7/L, 9/R, 11/R, 32/R (see 27.).

French, P. and Nicholls, M. 1964. Map and field notes of survey. NZAA Site Record Files, Auckland.

Fox 1977: 7-9 (see 27.).

Searle 1981: 107-109 (see 27.).

Searle and Davidson 1983: 13 (see 27.).

Sewell and Macdonald 1981: 8-10 (see 27.).

Simmons 1987: 47 (see 27.).

## 11. ORAAKEI

### 11.1 General

The Oraakei field includes a small scoria cone, a small area of basaltic flow, and a large explosion crater, Oraakei Basin. No records have been made of field sites, as the area is heavily built over and any archaeological sites destroyed or covered. The only substantial site that remains is a portion of Oraakei Paa in a public reserve.

Hochstetter 1864: 197 (see 27.).

Searle 1981: 89-94 (see 27.).

### 11.2 R11/106, Maungaraahiri Paa ("Little Rangitoto")

This small cone has been quarried completely away and no records have been found that indicate the features of the site. Traditionally it was a paa, but early photos do not show terracing or defences. Artefacts and midden from this settlement have been found by local residents in their gardens (J. Davidson pers. comm. 1992).

Boscawen 1899: 15/R, 32/L (see 27.).

Searle 1981: 91 (see 27.).

Simmons 1987: 42 (see 27.).

### 11.3 R11/87, Oraakei Paa

This site is located on a headland formed on the rim of the explosion crater that forms Oraakei Basin, where the rim is breached to join Hobson Bay. This is a strategic position overlooking Hobson Bay and the mouth of the Purewa Stream as well as the Basin.

The headland is naturally protected on three sides by water and cliffs. The paa is formed by transverse ditches and probably banks. At present only a minority of the former site remains. Its northern end has been destroyed by railway and other development, and the southern flank by housing, but a substantial part of the site is in a public reserve.

An archaeological excavation was carried out in 1967 in an area where Council intended to plant trees. Evidence was found of traditional Maaori wooden houses and store pits, the features of which had been truncated by later ploughing of the overlying topsoil.

Excavated 1967, by L.M. Groube.

Resurveyed 1981, by B. Sewell, J. Maingay and S. Bulmer.

Excavation for motel site monitored 1987, Visser.

Groube, L.M. 1967. Letter to R.C. Green, with plan of excavated house site. (A version of the plan was published in Davidson 1984: 156).

Searle 1981: 89 (see 27.).

Searle and Davidson 1983: 20-21 (see 27.).

Sewell 1983: 23-25 (see 27.).

Visser, E. 1987. Orakei peninsula - RailCorp development. Preliminary report on Site R11/87. DoC, Auckland. 6p.

## 12. TE PANE O HOROIWI (ST HELIERS)

### 12.1 General

This tuff explosion crater lacks basaltic soils, but has a swampy floor that probably supported taro and tii wet gardens, and may have been ditched for drainage. The rim of the crater is discontinuous, with three summits used for terracing and one of them also was fortified with ditches and banks. These sites are all heavily damaged by housing and roading.

Brief archaeological excavations have been carried out on the paa on two occasions, both "rescue" digs in anticipation of damage to the site.

Boscawen 1899: 45/L, 45/R, 47/R (see 27.).

Brown 1954: 115-116 (see 27.).

Hochstetter 1864: 197 (see 27.).

Searle 1981: 136-137 (see 27.).

### 12.2 R11/94, Te Pane o Horoiwi Paa

This paa is on a hilltop above the coastal cliffs at St Heliers Point, a highly strategic position overlooking the entrance to the Taamaki River. This is not actually volcanic land, but contiguous with the crater rim. It was defended on three sides by ditches and banks and on the fourth side by coastal cliffs. It has been heavily damaged by houses and associated construction. The archaeological excavations took place on a section of the southern ditch and part of the summit platform.

Excavations established a sequence of activities on the summit, showing changes in function of the area concerned. First was the building of defensive ditches and banks around the perimeter of the paa, next the construction of a series of drainage ditches, thirdly, the digging of a sequence of intercutting pits, and finally the construction of further defensive works and structures.

Ditch and bank excavated 1957-58, by L. and H. Birks (pers. comm. 1982 to B. Sewell.

Mapped 1982, by A. Fox and L. Diamond.

Excavation of part of platform 1982, SCSP project, directed by Sewell.

Sewell 1983: 33-37 (see 27.).

Sewell, B. 1984b. Archaeological excavations at Te Pane o Horoiwi (N42/365) St Heliers, Auckland. NZHPT, Auckland 1984/8.

1986. Excavations at Te Pane o Horoiwi (N42/365), St Heliers, Auckland. *RAIM* 23: 25-44.

### **13. TAURERE (TAYLORS HILL)**

#### **13.1 General**

This small volcanic field is on the western side of the Tamaki River, and consists of a single low scoria cone and tuff ring, with very limited basaltic fields. The swamps between the paa and the river were probably utilised for wet gardens.

Boscawen 1899: 49/R (see 27.).

Hochstetter 1864: 197 (see 27.).

Searle 1981: 137-138 (see 27.).

Sullivan 1975b: 71 (see 25.4).

#### **13.2 R11/96, Taurere Paa (Taylors Hill)**

Archaeological excavations were carried out in 1954-56 in anticipation of the quarrying of the eastern part of the cone paa. The majority of the paa remains in generally good condition in a public reserve.

The excavations included part of a platform and some terraces. This site is unusual in that it contained a large number of artefacts, among which were stone adzes of both Archaic and recent forms, flake knives or scrapers, hammer stones, grindstones, and a variety of bone tools, including fragments of tattooing chisels, fishhooks and awls. Two <sup>14</sup>C dates have been run on samples from the excavations; a charcoal sample indicates occupation between about AD 1447 and 1635 (NZ-7770), and a shell sample indicates occupation between about AD 1521 and 1795 (NZ-7753) (Leahy 1991: 64-65).

Excavation 1954-56, J. Golson, mapped by L. Birks.

Survey 1976, I. Perks.

Student mapping project 1981-82. University of Auckland.

Further mapping 1984, P Salmon and G. Law.

Maps collated and field checked 1987, by D. Bulmer.

Brown 1966. (see 27.).

Green 1970: 39 (see 27.).

Groube 1965: 24 (see 27.).

Leahy, A. 1991. Excavations at Taylor's Hill, R11/96, Auckland. *RAIM* 28: 33-68.

Sewell and Macdonald 1981: 22-24 (see 27.).

## 14. MOTUKOOREA (BROWNS ISLAND)

### 14.1 General

A total of 59 archaeological features and groups of features have been recorded so far on Motukoorea, including four paa. In fact, the island is not a group of discrete sites but a continuous archaeological landscape. The island is the only place in Taamaki where a cone and its field have survived together. Motukoorea has only a small area of surface basaltic fields, so there are not extensive stone constructions.

Two of the Motukoorea sites have seen brief archaeological investigations. One was on the cone paa and the other at a coastal midden that was monitored during tree planting.

Site surveys: 1975, Sullivan; 1982, S. Bulmer *et al.*; 1986, Rickard; 1987, Smith.

Boscawen 1899: 47/R (see 27.).

Fredericksen, C. 1991. Description of a lithic assemblage from Motukorea (Browns Island). *AINZ* 34(2): 91-104.

Rickard, V 1986. Motukorea (Browns Island) archaeological survey. *Report No. 11*. Department of Lands and Survey, Auckland.

Rickard, Veart and Bulmer 1983: 43-44, Fig 17 (see 27.).

Searle 1981: 165-170 (see 27.).

Searle and Davidson 1983: 22-23 (see 27.).

Sewell and Macdonald 1981: 30-35 (see 27.).

Smith, IWG 1987. Archaeological inspection: Motukorea. Draft report. Department of Lands and Survey, Auckland. 35p.

Sullivan 1972a: 151 (see 27.).

1975b: 70 (see 25.3).

### 14.2 R11/1100, coastal midden site

This is one of a large number of coastal midden sites on Motukoorea, indicating that most of the coast was occupied at one time or another. Although this was not an archaeological excavation, but instead the monitoring of the digging of holes for trees, it was found that there was moa bone in this midden 20-25 cm below the ground surface.

Monitoring tree planting 1983, Maingay and Coates.

Coates, J. and Maingay, J. 1983. Report on tree planting at Motukorea (Browns Island). NZHPT, Auckland. 3p.

#### **14.3 R11/39, paa on cone**

This site is unique among the remaining Auckland cone paa in that the settlement is entirely fortified and covers only about half of the rim and the highest slopes of the cone. The site is defended by transverse ditches and banks across the crater rim at both ends.

Site mapped 1975, S. Black; resurveyed 1982, Bulmer.

#### **14.4 R11/123, paa on lower ridge of cone**

This is a paa on a subsidiary ridge of the Motukoorea cone, separate from the main cone paa. It is defended at one end by ditches and banks. It has not been archaeologically excavated.

Site mapped and recorded 1968, R.G. Law. Map annotated by A. Fox 1979.

Map redrawn 1993, S. Maingay and S. Bulmer.

## **15. MAUNGAKIEKIE (ONE TREE HILL)**

### **15.1 General**

The Maungakiekie volcanic field is the largest in Taamaki, stretching east half way to Maungarei, north past Maungawhau, and south as far as the edge of the Manukau Harbour. Few archaeological features of the fields have been recorded partly because there was relatively little surface rock in these fields, but also due to their destruction under housing and factories and roads. The area is unique in that part of the former fields are protected from urban destruction in Cornwall Park and One Tree Hill Domain. The field has its origins in one complex of three scoria cones, Maungakiekie.

Hochstetter 1864: 193-194, 198-200 (see 27.).

Searle 1981: 111-118 (see 27.).

Sullivan 1972a: 151 (see 27.).

### **15.2 R11/14, Maungakiekie Paa (One Tree Hill)**

This paa (with Maangere Mountain) is one of the two largest (46 ha) and the most complex of the Taamaki cone paa. The cone is completely terraced from summit to base. It has three peaks and two promontories which were fortified with ditches and banks, formed on a complex of three cones joined together. The highest fortified area, the summit of the site, has been destroyed by the construction of a monument, but a number of its archaeological features were recorded by an amateur archaeologist at the time of its destruction. Another of the fortified areas has been destroyed by the construction of a water reservoir, and a second reservoir occupied another high part of the site. Roads to the summit and to the reservoirs have destroyed other parts of the paa, together with construction of a World War 2 radio station and a golf course. In spite of this, only perhaps 20% of the total site has been seriously damaged or destroyed.

Only one archaeological excavation has been done so far at Maungakiekie, investigations carried out in 1979, in connection with the renewal of the pipeline to one of the ARC reservoirs. A brief account of this work has been published (Bulmer 1983b). The pipeline ran through four terraces, from the base of the hill on Olive Grove Road, to the reservoir, giving a cross-section of the deposits. The lowest terrace had been built as a garden, with deep soil and no signs of occupation, while the three higher terraces had deep stratified deposits showing that they had been occupied repeatedly and over a long period of time. Shell from the most recent occupation of the next to lowest terrace has been dated to AD 1540 to 1693 (NZ-7948). The upper two terraces were also fortified with large palisade posts along their outer edges. Shell used to refill a palisade posthole on the lower of these two terraces has been dated to AD 1610 to 1816 (NZ-7946).

An interpretation of the paa entrance, a painting by Chris Gaskin, will be published in a forthcoming field guide by N. Prickett.

Student mapping project 197077, Department of Anthropology, University of Auckland, revised by A. Fox 1977.

PEP project 1980, J. Mijalevic, collated student maps.

Excavations of ARA water pipeline 1979, S. Bulmer. Report in prep.

Best 1927: 313-316 (see 27.).

Boscawen 1899: 2/R, 4/L, 4/R, 6/L, 6/R, 8/L, 8/R, 10/L, 43/L, 54/L (see 27.).

Bulmer, S. 1980. Archaeological investigations at Maungakiekie (N42/6). Paper presented to NZAA Conference, Palmerston North. 7p.

1983b. Archaeology. In *One Tree Hill Domain. First Approved Management Plan, Section 1.10*. One Tree Hill Domain Board, Auckland.

Fairfield, FG 1941. Maungakiekie ... One Tree Hill, Auckland. JPS 50(1): 92-104.

Foster, R. 1984b. Skeletal remains from Maungakiekie (One Tree Hill), N42/6. Department of Conservation, Auckland. 3p. [Restricted circulation.]

Fox 1977: 12-20 (see 27.).

Fox, A. 1978a. *Maungakiekie. the Maori pa on One Tree Hill, Auckland*. One Tree Hill Borough Council, in association with the Domain Board, Auckland.

Fox 1983: 14-16 (see 27.).

Hole, B. 1991. An attempt to improve population estimates of prehistoric Maori sites by economic models. Paper 03.326. Department of Anthropology, University of Auckland. 19p.

Houghton, P. 1979. Report on human skeletal material from One Tree Hill (N42/6). 3p.

Pearce, P. 1977a. Simulated aspects of prehistoric attacks on One Tree Hill. *NZAAN* 20(1): 18-24.

Searle and Davidson 1983: 8-9 (see 27.).

Sullivan 1975b: 70 (see 25.4).

## **16. MAUNGAREI (MT WELLINGTON)**

### **16.1 General**

This volcanic field was very large, mostly lying to the north and west of the cone, but extending southwest as far as the Manukau Harbour. There was a protected boat landing in the drowned explosion crater adjacent to the Taamaki River, giving direct access to the cone paa. Nearly all of the fields have been quarried or covered over by city, with little record of their archaeological features. A few small remnants still contain settlement sites and gardens, and these are to be archaeologically excavated prior to developments.

Bulmer, S. 1982. (see 27.).

Hochstetter 1864: 194-196, 197-198 (see 27.).

Searle 1981: 120-125 (see 27.).

Simmons 1987: 51 (see 27.).

Sullivan 1972a: 151 (see 27.).

### **16.2 R11/12, Maungarei Paa (Mt Wellington)**

This is one of the four largest cone paa of Taamaki, and most of it is now in a public domain. A quarry on the southern side, a road to the crater rim and a water tank in the crater have damaged the site, but the rest is in relatively good condition. Further destruction is planned for part of the base of the site, to the southeast, which has been zoned by the ARC for a regional road. It is planned for this area to be archaeologically investigated if the road is built.

Archaeological investigations have been carried out in five areas of Maungarei, all in connection with destruction of parts of the site. First was an area on the northern side, in the breach of the crater rim where a water reservoir was to be built. Two places higher on the rim have also been investigated, another on mid-slope terraces on the northern side of the site, and, finally, a walled garden plot on the northwestern slopes. The 1960 excavations were on the breached crater rim, in an area where no surface features were evident. Four large storage pits (two of which were 4 and 6.5 m long respectively) and deep fill layers were found in the excavations, showing that there had been complicated construction and reconstruction of the paa in this area. A sample of charcoal from the initial occupation layer was dated to between AD 1397 and 1447 (NZ-404). This date may not be accurate as the charcoal was not identified and may have come from a long-lived tree.

The 1965 investigations were in the vicinity of the summit trig station and revealed a flattened extended platform with no domestic material, such as midden or fires. The 1971-72 excavations were associated with the proposal to build a road to the top of the site and parking lot on the crater rim. Small stone lined storage pits were found on the northern crater rim, while the mid-slope terraces were built for living space, with large pits, hearths, midden fill in the terraces and trampled living surfaces showing the area was used repeatedly. The garden excavation was concerned with sections of two stone

walls, one with large edge stones and cobble filled core, and remnants of earth ovens and store pits. A series of radiocarbon dates show the paa was built and rebuilt from the AD 1500s to the 1700s, and possibly into the 1800s (J. Davidson pers. comm. 1990).

Surveys: 1960, Groube; 1966, mapped by Mt Wellington Borough Council; A. Fox, published revised map 1977.

Excavations: 1960, Golson; 1965, W. Shawcross; 1971-72, Davidson and McKinlay, report in prep. (Davidson pers. comm., 1992); 1984, Coates.

Boscawen 1899: 37/R, 39/L, 55/L, 55/R, 57/L, 57/R, 59/R (see 27.).

Coates, J. 1984a. Burial excavation, N42/4, Mt Wellington. NZ Historic Places Trust, Auckland 1984/3. [Restricted circulation.]

Davidson, J. 1975a. History of Maungarei. Pp. 6-12 in Maungarei. Mt Wellington Borough Council, Auckland.

1978a: 6-7 (see 27.).

(in prep.) The chronology of occupation on Maungarei (Mount Wellington), a large volcanic cone pa in Auckland. 15p.

Fox 1976: 22-24 (see 27.).

1977: 10-12 (see 27.).

1983: 14-16 (see 27.).

Golson, J. 1960. Excavations at Mt Wellington. *NZAAN* 3(2): 31-34.

1961a. A radiocarbon date from Mt Wellington. *NZAAN* 4(2): 51.

Green 1970: 39-40 (see 27.).

Groube, L. 1960. Mt Wellington site survey. *NZAAN* 3(2): 24-30.

Hochstetter 1864: 194-196 (see 27.).

Searle 1981: 194-196 (see 27.).

Searle and Davidson 1983: 16-17 (see 27.).

Sullivan 1975b: 70 (see 25.4).

### **16.3 R11/214, pit site**

This site, north of Maungarei, contained stone lined pits comparable to the pits found on the crater rim of Maungarei. No archaeological excavation was done at this site. The site has been destroyed by quarrying.

Taylor, A. 1962a. Scoria-faced pits near Mt Wellington. *NZAAN* 5(1): 87.

Sewell 1983: 42 (see 27.).

### **16.4 R11/1637, 1638, gardens and settlement sites in Winstone's quarry**

These two last remnants of the Maungarei volcanic fields are on the periphery of the quarry. The numbered sites refer to two places where surface evidence is visible, but it is likely that other parts of the remnant areas contain sub-surface archaeological

features. It is planned that these areas will be archaeologically excavated prior to quarrying.

Surveyed 1988, Sewell and Veart.

Veart, D. 1989. Statement of evidence. 4p. DoC, Auckland.

### **16.5 R11/98, Mokoia Paa**

This famous early 19th century paa and town on the banks of the Taamaki River, was reported in 1820 to be a mile long and half a mile wide and to have a population of thousands. It was the scene of a famous battle of the musket era. The site is now heavily damaged by urban development, but some archaeological evidence survives in house allotments. A conspicuous example is the ditch and bank of the citadel which can still be seen in a property next to the Panmure Bridge. An archaeological excavation through the defences was carried out in advance of the construction of a driveway. The excavations showed a sequence of stages of construction of the defences and adaptation to musket warfare, but this was not sufficient to prevent the defeat of the paa.

According to early historic observers Mokoia was one of two paa in the same area, the other being Mauinaina (Bulmer 1992). A land map of 1845 shows an area of 50 acres, labelled Mauinaina, defended on the north and west by "moat and breastworks", and on the south and east by the lagoon and Tamaki River. Fieldwork has shown remnants of the western part of these defences and a probable remnant of the ditch and bank to the east, near the river. Fieldwork and other research in the areas has also indicated there were two citadels within the total paa, one next to the river at the present Panmure Bridge and another on the hilltop to the west, where the church now stands. These may be Mokoia and Mauinaina, respectively, although others are of the opinion that Mauinaina was a name applied to Mt. Wellington. According to the traditions related to the 1600s and early 1700s analysed by Sullivan (1992, in prep., appendix 6), Mauinaina was referred to as a possible settlement and a battle site, not a paa.

Excavations 1978, 1982, S. Bulmer. Report in prep.

Boscawen 1899: 35/L, 35/R (see 27.).

Bulmer, S. 1978. Preliminary report on test excavations at Mokoia. NZHPT, Auckland. 4p.

Bulmer, S. 1992. Mokoia - Maaori Panmure. 7p. Contribution to Tansley, Stewart and Urban Design Office: *The Panmure Mainstreet Programme*.

### **16.6 R11/9, Tauomaa Paa (Purchas Hill)**

This small terraced cone to the north of Maungarei has been completely destroyed by quarrying. No archaeological mapping has yet been done, but Hochstetter illustrated the site in cross-section, and good aerial photos exist that can be used to map the features of the site. No archaeological excavation was done at this site.

Hochstetter 1864: 15 (see 27.).

## 17. PAKURANGA

### 17.1 General

This was a small volcanic field consisting of a tuff ring with a small scoria cone, and a small tongue of basaltic flow extending to the southwest. Little has been recorded archaeologically, other than the paa.

Hochstetter 1864: 200 (see 27.).

Searle 1981: 163-4 (see 27.).

Sullivan 1972a: 153 (see 27.).

### 17.2 R11/38, Ohuiarangi Past (Pigeon Mountain)

Only a fragment of the original paa now remains in a public reserve, but a sketch map of it was drawn prior to its destruction. Detailed archaeological mapping has been done on the remnant, but no excavations have taken place. A model of the site has been prepared by the Howick Historic Village.

Surveys and sketch map, 1960s, Fairfield.

Mapped, 1985, by C. Phillips

Fairfield, G. 1992. *Pigeon Mountain, O Huiarangi. The birth and death of a volcano.* Tamaki Estuary Protection Society, Auckland.

n.d. Pigeon Mountain and other pa Maori. DoC, Auckland. 7p.

Myers, C. 1974. Site survey of Pigeon Mountain. In Sullivan 1974a: 22-4 (see 27.).

Sullivan 1975b: 72 (see 25.4).

Taylor 1963b (see 27.).

## **18. RAROTONGA (MT SMART)**

### **18.1 General**

The Mt Smart field is next to the Manukau harbour, between the Maungarei and Maungakiekie fields. Hochstetter commented on the walled gardens and settlements, although little archaeological record has been made. The fields provided a very large area of garden land, and access directly to the Manukau Harbour, and via the portage or on foot to the Taamaki River. No archaeological excavation was done at this site.

Hochstetter 1864: 194 (see 27.).

Searle 1981: 114-115 (see 27.).

Sullivan 1972a: 153 (see 27.).

### **18.2 R11/11, Rarotonga (Mt Smart)**

The cone has been entirely destroyed through quarrying, and is now the site of a public stadium. Early photos show it was fully terraced down to its base, and its strategic position and the extensive garden lands suggest this may have been a large community.

Survey of remnant, 1979, Johnson.

Boscawen 1899: 54/L, 56/L, 56/R (see 27.).

Johnson, L. 1979. The destruction of Mt Smart. Class paper, Department of Anthropology, University of Auckland. 6p.

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