

Archaeology of the Hohi Mission Station

Volume I: The 2012 Excavations

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Chapter 1: Introduction

The Hohi (Oihi)¹ Mission Station was the first permanent European settlement in New Zealand, giving it a significant place in the settlement history of the nation. Established by Samuel Marsden in December 1814 under the protection of local chiefs who occupied the adjacent Rangihoua pa, Hohi was home to a community of *ca.* 25–30 Europeans and a place of work and schooling for numerous Maori. It was also the focal point of Maori-European interactions in the Bay until other localities with better anchorages became more popular with visiting ships in the early 1820s and other European settlements were established in

Kerikeri, Paihia and Kororareka. Hohi was abandoned in 1832, with the last of its missionaries relocating to Te Puna, about 1 km to the west. The site was never reoccupied, giving it outstanding archaeological potential as an undisturbed record of the first 18 years of European settlement. This period, when the immigrant population of the bay is unlikely to have exceeded 100 (Wright 1959: 26), is as yet poorly known through the archaeological record (Smith *in press*). Hohi was also one of the earliest mission stations founded in the South Pacific, and established a 'household mission' style of operation that came to dominate missionary enterprise in this part of the world (Middleton 2010).

¹ See Chapter 2.1 for discussion of the site name.

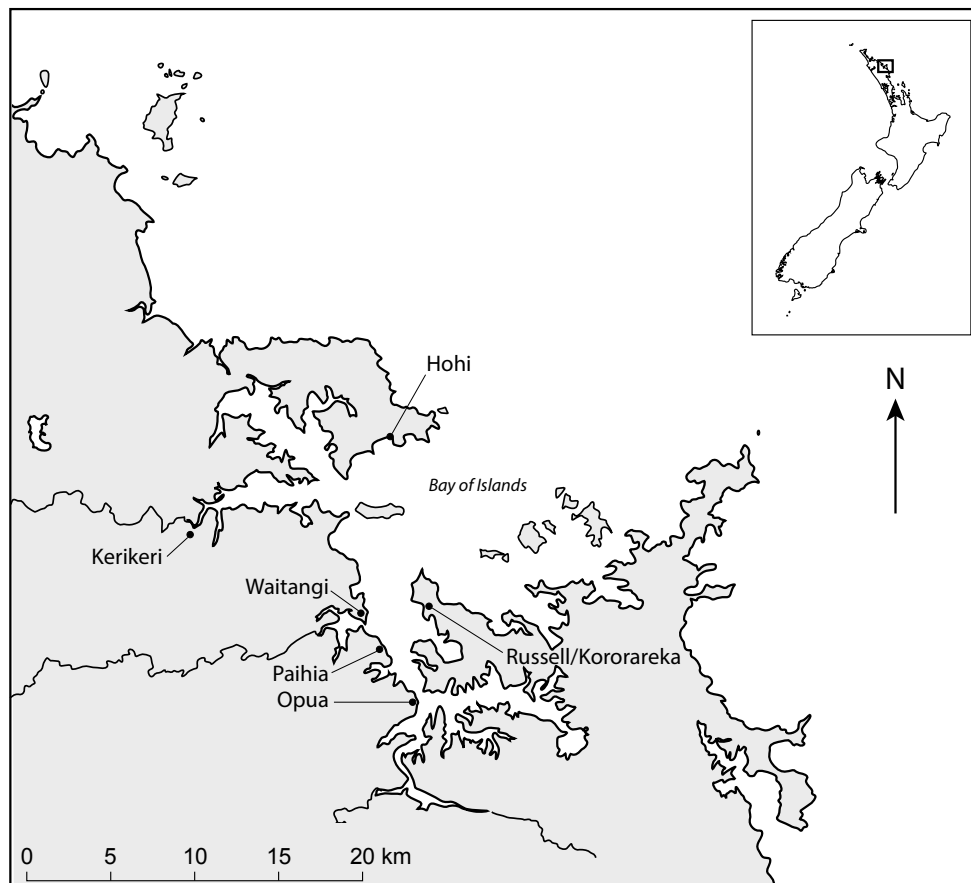


Figure 1. Location map

The site of the Hohi settlement is now part of the Marsden Cross Historic Reserve, Rangihoua Bay, Bay of Islands (Figure 1), which is managed by the Department of Conservation. In 2011 a two year programme of archaeological investigations was commenced as a joint venture between the Department of Conservation and the Department of Anthropology & Archaeology, University of Otago, with approval and support from Ngati Torehina. The first season of excavations took place in February 2012 and are described in this monograph.

1.1 Context and Research Questions

The investigations were undertaken in anticipation of the 200th anniversary of the founding of the mission station. Church groups and descendant families of the mission community are planning a series of celebrations to mark the bicentenary, some of which it is proposed will take place on the site. In order to manage the impact that the expected increase in visitor numbers will have on such a significant site, the Department of Conservation began planning to upgrade tracks, signage and other facilities at the Marsden Cross reserve. To guide this process they required greater information about the location, form and meaning of the archaeological remains of the mission settlement.

There are also compelling reasons for undertaking archaeological research at Hohi. While there is an extensive historical literature on the activities of early 19th century missionaries in New Zealand, this is focussed predominantly on their missionising activities along with their role in inter-racial politics (Binney 2005; Elder 1932; Salmond 1997). It reveals very little about the daily life of the Hohi missionaries or those Maori with whom they interacted. Recent research at Te Puna mission station has demonstrated the efficacy of archaeological investigation in revealing aspects of personal lives, community interactions and economic organisation (Middleton 2003, 2006, 2007, 2008). As well as providing rich detail of household and community life at one Bay of Islands mission, this research has also impacted on the global study of mission archaeology, contributing a new typology of mission stations and highlighting their role in the modification and manipulation of gender roles (Middleton 2010, in press).

Throughout the 19th century there were significant social, economic and political changes in New Zealand that transformed Maori and Pakeha societies and their interactions with the wider world (Belich 1996, 2009). Archaeology has an important role in documenting and explaining the impacts of these changes (Smith 2008), especially at the household and community levels, through its unique access to evidence of built structures, portable artefacts and food remains. To date, remains of these kind from the earliest phases of European settlement have been difficult to recover. Little survives from the first ephemeral settlements in the last decade of the 18th century (Smith & Gillies 1997, 1998), or from those of commercial sealers in the first two decades of the 19th century (Smith 2002).

A handful of sites including Sealers Bay (Smith & Anderson 2007, 2009), Te Puna (Middleton 2008), Oashore (Smith & Prickett 2006) and Te Hoe (Smith & Prickett 2008) at which occupation commenced in the two decades from 1825, thus far provide the earliest secure evidence of household and community life in 19th century New Zealand. One of the primary aims of archaeological research at Hohi is to extend this record back to the commencement of permanent European settlement in New Zealand and provide fundamental baseline data for understanding initial engagement between Maori and European and subsequent cultural change.

1.2 Setting and Previous Investigations

As is the case elsewhere in the Bay of Islands, coastal land in the vicinity of Hohi is dense with archaeological sites. The 61 sites shown in Figure 2 include six pa, 29 sites with terraces and/or pits, 11 with features that appear to relate to gardening, five with middens and/or ovens and one stone structure. All of these are likely to be Maori sites, and most probably derive from, or at least began occupation in the prehistoric era. Only nine sites have clear European associations. In addition to Hohi (Site number Q05/5), these include the Te Puna Mission (P05/24) and associated ploughlines (P05/856, 893), saw pits (P05/899) and path (P05/896); along with two house sites (P05/892, 915) and a grave (P05/855). The inter-relation of Maori and European sites in this landscape has been discussed by Middleton (2003), whose excavations at the Te Puna mission have been described in considerable detail (Middleton 2008). In contrast, published archaeological information about Hohi is confined to a brief description of surface evidence (Spencer 1983) and a tape and compass map from this (Figure 3).

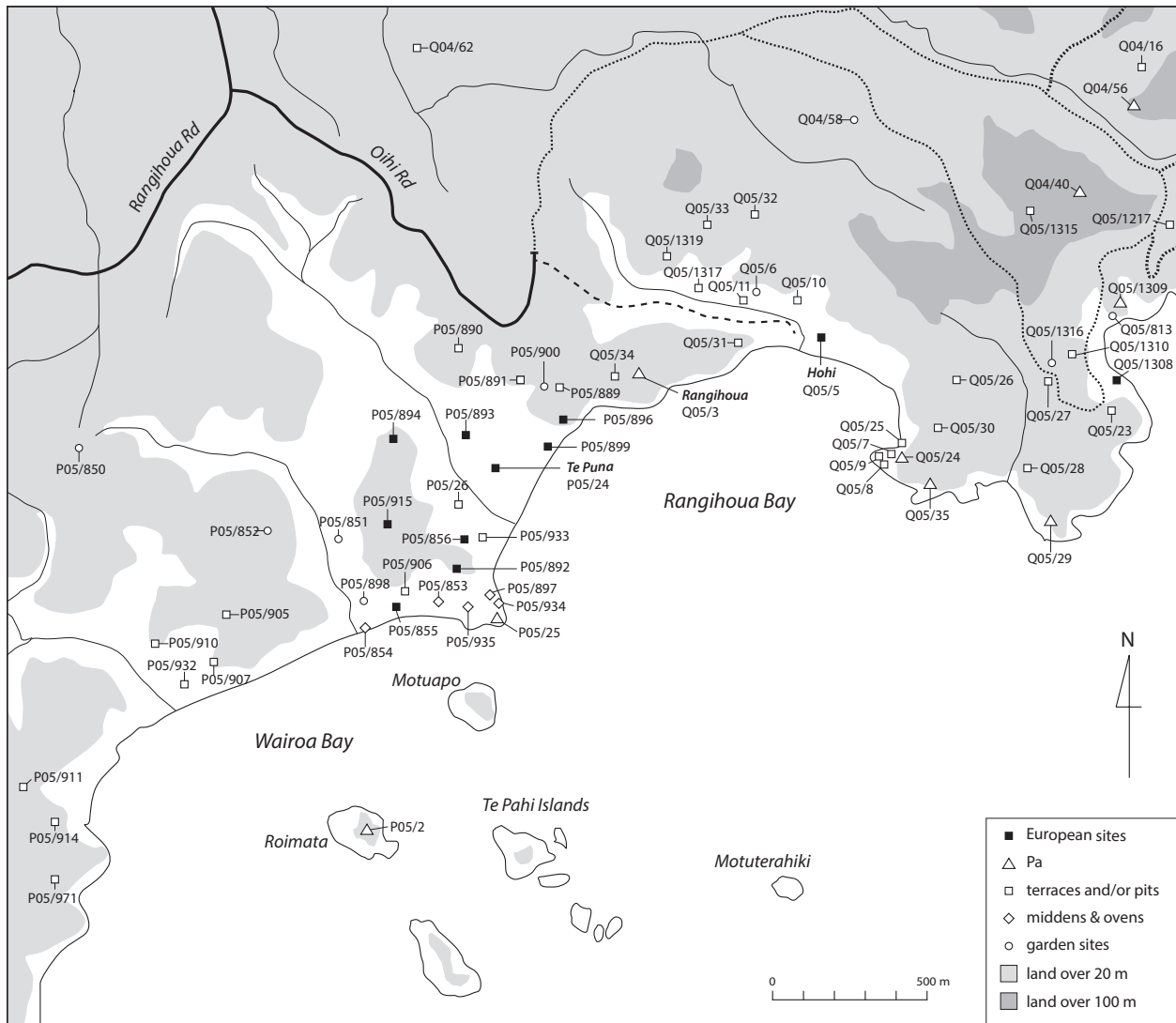


Figure 2. Archaeological sites in the vicinity of Hoho

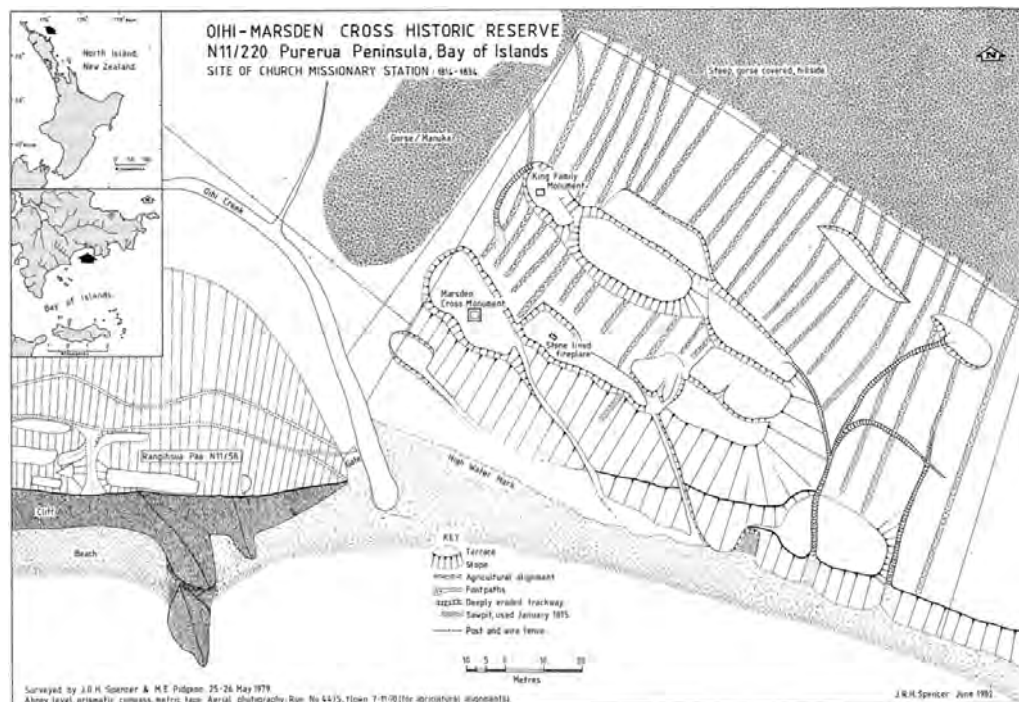


Figure 3. 1978 tape and compass survey plan of Hoho mission station (Spencer 1983)

DEPARTMENT OF LANDS AND SURVEY, NEW ZEALAND.
NORTH AUCKLAND LAND DISTRICT
BAY OF ISLANDS COUNTY

21313

KERIKERI

8

7

IX

S.G.R. 28

O.L.C. 56 (Te Hahi)

P.O.L.C. 56 (Te Hahi)

Rangihoua

See 24343

Total Area 5 - 1 - 32

Approved for Survey Data only.

Approved

Chief Surveyor

Ref Plans 4078, 4130, 4131

Deeds/Plans No. 8(4)1 Date: 1-5-21

Original No. 8155 Page: 11

Transfer No. 36549 Page: 20

Map No. 101

Map No. 101

Registered:

Surveyed for The Crown

By N. J. Tili

Date: May 1926

Licensed Surveyor.

23705

CERTIFICATE.

SCALE: 5 chains to an inch.

I HEREBY CERTIFY that this plan has been made from surveys conducted by me (or under my own personal supervision, inspection, and direct check); that both plan and survey are correct; and that all the rules and regulations with respect to the survey of Crown land have been duly complied with.

Dated this 10th day of May 1926.

Licensed Surveyor.

4

Chapter 2: History

2.1 Bay of Islands beginnings

The first Christian mission to New Zealand was established at Hohi in Rangihoua Bay, late in December 1814. Hohi was the traditional name for the land north of the stream at the foot of Rangihoua pa (Hugh Rihari, pers. com.² Feb 2012). It is recorded (as Hoshee) on the 1815 Deed of Purchase (Turton 1882:61), and (as Hohi) on maps of land claims there in 1855 and 1926 (Figures 4 and 5). The missionaries used a variety of names to refer to the locality of their settlement – Hohi (King n.d.-b), Rangihoua, and Te Puna – each with various spellings, but we can find no primary evidence that they called it Oihi. The first reference we can find to this modern rendering is on an 1879 map presented to the Maori Land Court (ML3233_A). We will use the traditional name.

The Hohi mission grew from an initial friendship between Te Pahi, rangatira from Te Puna (Table 1), who visited Port Jackson, New South Wales, in 1805, and Samuel Marsden, chaplain to the British settlement there. This story, along with Marsden's subsequent meeting with the young chief, Ruatara, also from Rangihoua, has been well told before (e.g. Elder 1932, 1934; Jones & Middleton 2007; McNab 1908, 1914; Salmond 1997, 2000). Finding inspiration for the establishment of a mission to the Maori of New Zealand through his relationship with Te Pahi, Marsden travelled to Britain in 1806, where he gained the support of the Church Missionary Society (CMS) for this venture. In 1810 he returned to NSW with two young men, William Hall, a carpenter, and John King, a shoemaker, both Evangelist Christians. Thomas Kendall and his wife subsequently joined them as the proposed school teacher for the mission.

In June 1814, Marsden sent Hall and Kendall on an initial exploratory visit to the Bay of Islands, bearing a letter to Ruatara telling him of the proposed first European settlement and seeking his support for this. Ruatara, his uncle Hongi Hika, and other Maori returned to visit Port Jackson in the missionary brig *Active* with Hall and Kendall; the *Active* left NSW again in November, this time bringing

the returning rangatira along with all the mission settlers, their families, and Samuel Marsden (Elder 1934:79). Also with the party was the Englishman John Liddiard Nicholas, a companion of Marsden, whose account of his stay in the Bay was first published in 1817 (Nicholas 1817).

At this time, Te Hikutu were the principal hapu with mana whenua at Rangihoua and Te Puna (Hugh Rihari pers. com. 20 May 2012; Binney 2005:218 n.43; Sissons *et al.* 2001:36, 38). While Ruatara may have had closer links to other hapu, he was also connected with Te Hikutu (Sissons *et al.* 2001:38). Today, Ngati Torehina, based primarily at their turangawaewae at Wharengaere Bay, hold mana whenua, dating back to the paramount rangatira, Te Pahi and before (Whakaaropai Rihari pers. com. Sept. 2002). Ngati Awa had occupied the area prior to Te Hikutu (Whakaaropai Rihari, pers. com. Sept. 2002; Hugh Rihari pers. com. 20 May 2012; see also Sissons 2001:60–61) and Te Pahi had links to this iwi. Te Hikutu's main base lay to the west at Whirinaki, on the Hokianga (Hugh Rihari pers. com. 20 May 2012; Binney 2005:218 n. 43). Sissons *et al.* (2001:38) suggest that during fighting in the late eighteenth century, Te Hikutu were displaced from their old territory at Taiaimai, some moving east to Rangihoua and others west to the Hokianga. Brothers Wharemoaka, Te Uri o Kanae, and Wharepoaka were the direct ancestors of Ngati Torehina (Hugh Rihari pers. com. Feb. 2012). Wai-kato also lived at Rangihoua, but held this right through his wife, Te Hira (Puhī 1876).

When the missionaries sailed into the Bay of Islands in December 1814 the *Active* anchored in the small bay beneath Rangihoua pa where Ruatara was rangatira (Elder 1934; Nicholas 1817 1:39). The pa was also under the control of his father-in-law, the tohunga Rakau. Rakau's daughter, Rahu, was the most senior of Ruatara's three wives (Nicholas 1817 1:177–81); another wife was said to be the daughter of Te Pahi, while at the time of Nicholas and Marsden's visit Ruatara's third wife had been 'discarded for incontinence' (Nicholas 1817 1:181). While the identity of this wife is not clear, Sissons *et al.* (2001:40–41) name Miki, the daughter of Waraki, as one of Ruatara's wives. The rangatira Wharepoaka, Rakau's son, would later become prominent in the pa's relationship with the mission,

2 All personal communications referenced in Chapter 2 were to Angela Middleton.

along with Waikato, Rakau's son-in-law, whose wife was Te Hira. While Hongi played a prominent part in the iwi relationship with missionaries and their protection from their arrival in 1814 until his death in 1828, he did not have mana whenua at Hohi or Rangihoua (Hugh Rihari pers. com. Feb. 2012). Hongi's main areas of influence lay inland at Waimate and extended from there to Kerikeri. Some of his gardens were also found at Papuke, the headland pa at the western end of Te Puna, where Marsden later encountered his principal wife, Turikatuku and others digging their plantations (Elder 1932:166).

2.2 The Hohi Mission

The missionaries arrived at Hohi in the *Active* on 22 December 1814. On their earlier reconnoitre to the Bay of Islands, Thomas Kendall and William Hall had identified Te Puna, on the western flank of Rangihoua pa, as the most promising location for the planned mission. Samuel Marsden however insisted on Hohi as the site, chosen for its proximity to the pa, whose rangatira offered resources and protection from other iwi.

The initial party comprised at least 26 European men, women and children: the 23 listed in the top half of Table 2; along with Marsden; Thomas Hansen senior, captain of the *Active*, his son Thomas; and an unknown number of crew. Those who remained when Marsden departed in March 1815 included: Thomas and Jane Kendall, three boys and one servant (Richard Stockwell); William and Dinah Hall and one child (Dinah was pregnant with her second

child); John and Hannah King, two children (their second son was born at Hohi in February 1815); as well as several servants, one pair of sawyers and a smith, these three being ticket of leave convicts, 'bound for a time,' three years apparently being the usual term (Elder 1932:140). Hannah Hansen, senior, and her son Thomas (mother and brother of Hannah King) remained 'on their own account,' while Thomas Hansen senior captained the departing *Active*. Marsden had encountered six runaway convicts in the Bay, taking three of these to Port Jackson and leaving the other three with the missionaries, to be taken back on the return of the *Active* (Elder 1932:130, 140). The wife of one sawyer and of Walter Hall the blacksmith later joined the mission, along with their children.

Before Marsden left Hohi at the end of February 1815 he needed to secure tenure of the mission land in a manner to which he was accustomed. On 24 February 1815 crowds had gathered from different parts of Pewhairangi (Bay of Islands), as well as others from 'remote districts' for the imminent departure of the *Active*, to farewell their relatives who were returning to Port Jackson with Marsden. In anticipation of this transaction, Marsden had brought with him 'two parchment deeds on behalf of the Church Missionary Society' from Parramatta (Nicholas 1817 11:192; Nicholas has the dates a month wrong). This was drawn up according to British custom, identifying about two hundred acres of land, situated in the 'district of Ho-shée' and falling with the natural boundaries of sea, the stream and other features, sold to the 'Committee of the Church Missionary Society for Africa and the East' (El-

Table 1. *Maori residents at Rangihoua/Te Puna referred to in missionary and other accounts*

Name	Notes	Refs
Te Pahi	paramount chief at Te Puna until his death in 1810	1:8, 179; *
no name given	wife of Te Pahi	1:179
no name given	daughter of Te Pahi	1:179
Rakau	tohunga; father of Te Uri o Kanae, Wharemoikaikai, Wharepoaka, Rahu, Tungaroa, Karuhi	5:178; *
Te Uri o Kanae	son of Rakau; nephew of Te Pahi; left September 1819	1:188; 5:162; *
Ruatara	spouse of Rahu & others (including daughter of Te Pahi); died 1815	1:13, 170; *
Rahu	daughter of Rakau; spouse of Ruatara; died 1815	1:180; *
Wharemoikaikai (Warree)	son of Rakau; nephew of Te Pahi; died at Te Puna 1858	2:192; 5:101; 10:92
Wharepoaka	son of Rakau; died 1837 at Te Puna	2:192; 5:181; 9:106; *
Tungaroa	daughter of Rakau; betrothed to Towhi; lover of Kendall	1:180; 7:100
Karuhi	daughter of Rakau; spouse of Phillip Tapsell; buried on tihi at Rangihoua	1:180; 5:553
Waikato ('Jackky Terra')	spouse of Te Hira; father of Toko	5:364; *
Te Hira	spouse of Waikato	4
Toko / Mokakaraka	child of Waikato; baptised Thomas Mortlock	8:120
Towai	son of Te Pahi; age 17, 1817; helped Kendall teach.	5:171
Towhi	'chief' of Rangihoua 1820; betrothed to Tungaroa; already married 1819/20	6:165-7; 7:101
no name given	daughter of Towhi; seaman in love with her 1820	6:165-7
Hauraki	resided at Kaihiki	7:103
Wairua	nephew of Hongi	3:355

References: 1 – Nicholas 1817 Vol.1; 2 – Nicholas 1817 Vol.2; 3 – Barton 1827; 4 – Puhi 1876; 5 – Elder 1932; 6 – Cruise 1957; 7 – Binney 2005; 8 – Middleton 2005a; 9 – Middleton 2008; 10 – Jones & Jenkins 2011; * numerous other references

Table 2. *European Residents at Hohi (excludes residences < 6 months)*

Name	Arrived	Occupation	House	Departed	Notes	Refs
Thomas & Jane Kendall, 3 sons	Dec 1814	school teacher	yes	1823	2 daughters arrived later from NSW; 4 sons born in NZ incl. Samuel (below)	5:44, 200
Richard Stockwell	Dec 1814	servant to Kendalls	lived w. Kendalls	1817	fathered Jane Kendall's son, Samuel	5:44, 201
John & Hannah King, 2 children	Dec 1814	shoemaker & twinespinner	yes	1832, to Te Puna	total 12 children	6:51–4
Hannah Hansen	Dec 1814	mother of Hannah King	lived w. Kings	March 1816		1:130; 3:47
William & Dinah Hall, 1 child	Dec 1814	carpenter	yes	April 1825	1 child born 28 May 1815	7:2–3
Walter Hall & wife & child	Dec 1814	ticket of leave convict; blacksmith	yes	Nov 1816		7:16, 22
Conroy & wife	Dec 1814	sawyer	yes	Nov 1816	was at Waitangi 1815	7:16, 22
Tully Matthews	Dec 1814	brickmaker		Nov 1816		4; 7:11
Henry (Patrick) Shaffery	Dec 1814	ticket of leave convict		?Nov 1816		5:44
Campbell	Dec 1814?	sawyer		Nov 1816		7:8, 22
Thorn	Dec 1814?	carpenter		?Nov 1816		7:8
John & Sarah Shergold	Sept 1815	sawyer		Dec 1816	Sarah (nee McKenzie) died 26/7/1816	7:18; 4:194
Thomas & Elizabeth Hansen	Feb 1816	settler	yes, nearby	1832, to Te Puna		3:47
William Carlisle	Early 1816	assistant teacher; sawyer		late 1816	to Sydney to collect family	5:204
William Carlisle & family	April 1817		yes	Nov. 1819		1:223
Charles Gordon & family	April 1817	sawyer	yes	Nov. 1819	Carlisle's brother-in-law	1:223
Thomas Foster (Forster)	Feb 1820	blacksmith		Dec. 1821		2:244
Samuel Leigh & wife	Feb 1822	Wesleyan missionary	lived w. Wm Hall	Apr. 1823	Lived w Wm Hall for 16 months	1:339
John & Marianne Cowell	Feb 1822	rope maker	lived w. Kendalls	Nov 1823	dismissed by Marsden	1:341
Charles Davis	April 1825	carpenter	yes, formerly Hall's	?March 1826	from Paihia; minded Hall's house	8
James & Harriet Shepherd	March 1826	missionary, gardener	yes, formerly Hall's	1832 to Te Puna		9:117

References: 1 – Elder 1932; 2 – Elder 1934; 3 – Martin 1990; 4 – Carr 2004; 5 – Binney 2005; 6 – Middleton 2008; 7 – McLennan & McLennan 2012; 8 – King n.d.-c: April 1825; 9 – Shepherd n.d.

der 1932:123–124; Nicholas 1817 11:195). To be 'ratified,' this now only required signing on the part of Te Uri o Kanae and 'Warree' (Wharemoikaikai) and by Kendall and Nicholas as representatives of the CMS. While Ruatara had mana whenua over Rangihoua, Te Uri o Kanae and Wharemoikaikai controlled the land on the north side of the stream dividing the pa from the slopes of Hohi to the north (Nicholas 1817 11:192; Hugh Rihari pers. com. Feb. 2012). Hongi Hika drew the moko of Te Uri o Kanae on the deed as a form of signature, and Wharemoikaikai's moko was added as a witness. Samuel Marsden may have made an error in calling the rangatira 'Ahoodee O Gunna,' 'Turree being the preceeding part,' while the chief's name was

usually abbreviated to simply 'Gunna,' later transcribed as 'Kanae' (Nicholas 1817 11:93). Marsden described Kanae and Wharemoikaikai as 'nephews' of Te Pahi and relatives of Ruatara (Elder 1932:123).

The 'sale' agreement made the mission land tapu to the missionaries; Maori were no longer to enter this without permission. Kanae was given the title 'King of Rangee Hoo' in the deed, as he was expected to take control of the pa and surrounding districts following the impending death of Ruatara, who was at this point lying dangerously ill in Rangihoua pa. Te Pahi's young daughter was expected to later control this territory. In compensation for the pur-

chase of the two hundred acres, Marsden paid twelve axes. No doubt Marsden and Nicholas considered this a bargain; Nicholas had earlier noted that William Hall purchased 'somewhat more than two acres' and its clearance for two axes and a hoe; 'but this, though to Europeans it may seem a price scarcely worth the name, was here considered a full equivalent' (Nicholas 1817 II:169).

The *Active* left the Bay on 26 February 1815, taking John Nicholas, Marsden and a number of Maori back to Paramatta. From his base there, Marsden maintained a controlling hand over the small settlement beneath the pa and established a 'seminary' for young Maori men to live in and learn the arts of agriculture. He did not visit again until 1819, when the Kerikeri mission was established, and in total made seven visits to New Zealand before his death in 1838 (Elder 1932). Thomas Kendall wrote to Marsden in March 1815, telling him that a few days after the *Active* left, Ruatara 'was conveyed from the village [Rangihoua] upon a kind of bier to a hill at Tippona [Te Puna] upon which in his lifetime he had proposed to you a town should be built, a shed having been previously prepared for his reception' (Elder 1934: 75, 83; Middleton 2005c: 132; recorded as site P05/915). Ruatara died there a day later, his wife Rahu hanging herself soon after. Both their bodies lay in state on a stage erected on this spot, enclosed by Hongi with a board and railing fence, until being moved later to a burial place. On his deathbed, Ruatara told his wife to ensure that the people of Te Puna continued to take care of the missionaries after his death (Elder 1932; Kendall n.d.-a), maintaining the reciprocity that was first established by Marsden and Te Pahi, and continued between Marsden and Ruatara and then between the mission and Hongi.

For the missionaries Hohi was beset with difficulties from the beginning. Kendall was quite clear about these, writing to Basil Woodd, secretary of the CMS:

We have now resided nearly two years at this place, and to all appearances there is no probability of our obtaining the necessities of life in any other way than at the expense of the Society. The spot on which we live is barren, and, as you will observe from the view, is so mountainous that it is quite unsuitable for the purpose of cultivation or for cattle. I objected to landing here at first very strongly to Mr. Marsden, because there was on the other side of the village and in sight of it a more even tract of land with a more fertile soil. (Elder 1934: 131)

As Kendall described, it was difficult, or impossible to grow food for the settlement in such a steep, narrow valley. 'Private trade' with Maori and visiting ships was forbidden under the CMS's rules. Problems with food supplies fuelled ongoing conflict in the small community, where accusations were thrown concerning who was consuming alcohol and who was trading in muskets. The beach below the pa and the mission was frequently the meeting point for Ngapuhi war parties departing and returning from voyages of conquest; the mission was subject to Maori, consid-

ered part of the hapu under which it sheltered, buffeted by political forces within and beyond Ngapuhi. The mission had to live within Maori cultural precepts or suffer the consequences, in particular the practices associated with foundational concepts such as mana, tapu and utu. As a result, the mission found itself subject to taua muru, plundering parties, exacting utu following offences of tikanga in the Maori world. These offences may have been committed by members of the mission itself, or by someone from the pa, or muru may have resulted from the death of or injury to significant people.

2.3 Iwi and Tauwiwi

Kanae, whom Marsden (Elder 1934: 124) in 1815 had considered the 'chief man in Rangheehoo', left the pa in September 1819 after a disagreement with his younger brother, Wharemokaikai. Kanae burnt his house at the pa, and lacerated his face, arms and legs to show his grief (Elder 1932: 162, 169). The missionaries gave him parting gifts as he departed for the Kawakawa area, where he went to live with Te Koki, one of his relatives. He was later associated with the Paihia mission. Kanae's departure evidently left a vacuum in leadership at the pa, which Towhi, from Whirinaki, stepped up to fill (Binney 2005: 218 n. 43). In 1826, Towhi was killed at Te Rore, in the Waikato, in the same battle in which the Ngati Manu rangatira Pomare died. From this point onwards Wharepoaka and his brother in law, Waikato, became more prominent in the pa's affairs and the relationship with the mission (Marshall 1836: 316; Middleton 2005c; Von Huegel n.d.). Wharemokaikai's name also appears regularly in missionary journals and letters. In 1838, John King (n.d.-d) reported the death of 'our old friend Wharepoaka'. Wharepoaka had by this time converted to Christianity and after contracting consumption moved to the Te Puna mission, where the Kings took care of him. In 1844 Waikato was baptized 'Josiah Pratt', his wife Te Hira christened 'Jane Marsden' and their eldest son, Toko, 'Mortlock', or 'Motukaraka'. Wharemokaikai also moved to the Te Puna mission, where he died in 1858 (Middleton 2005c: 135). Although there were conversions, Hohi fostered the rise of resistance and syncretic forms of Christianity. One of John King's former pupils, known as Te Atua Wera, moved to the Hokianga in the 1830s, where he propagated the new faith of Papahurihia, in opposition to the missionaries whom he considered 'murderers' (Middleton 2005c: 119).

The first stormy decade of the mission ended with the expulsion of Kendall and his removal to Matauwhi Bay, near Kororareka in February 1823. This left only John King and William Hall as missionaries at Hohi, but by this date Kerikeri and Paihia were established and Henry Williams had taken over the role as leader of the CMS in New Zealand. William Hall, suffering from asthma, returned to Port Jackson in 1825, where he was associated with the Black Town Native Institution and became a successful farmer. James Shepherd arrived in the Bay in 1820, living first as a single man at Okura near Kerikeri. After marrying in Port Jackson in 1821 Shepherd and his wife Harriet lived

at Kerikeri before moving to Hohi in 1826 (Shepherd n.d.).

The Shepherds and Kings were the two principal families at Hohi from that point on. However they were not alone. Hannah King's brother, the settler Thomas Hansen, and his wife Elizabeth lived with their large family at the bottom of the valley, situated between the pa and the mission. New mission recruits sometimes stayed in the mission before moving on to other stations, living with either of the mission families or in the houses built for the labourers; this was the case when Alfred Nesbit and Charlotte Brown stayed there in 1830. CMS and WMS visitors from other parts of the Pacific (particularly Tahiti) and from NSW came to visit; monthly prayer meetings and quarterly committee meetings were rotated around the various missions in the Bay, bringing the 'brethren' together; wives exchanged visits from place to place and supported each other during childbirth and illness. The harbour formed a highway for waka and boats rowing across the Bay and between settlements.

The mission was not simply a European settlement. For a time, Waikato lived in the house originally built for Carlisle, a move that Kendall orchestrated after their return from England. Other brethren considered this 'very wrong' and tried to rectify the matter by moving the Cowells into the house (Barton 1927: 236–7). Cowell was agreeable to this, as was Waikato, who had only remained living there on Kendall's insistence. John Butler (mission superintendent from Kerikeri) gave Waikato gifts – 'twenty axes, hoes, etc' which he accepted and the move was made (Barton 1927: 237). However, while the men had all agreed on the matter, Mrs. Cowell appeared at the door of Kendall's house (where they were then living) and said to her husband, 'You need not accept that house, for I will not go into it' (Barton 1927: 237). Mr Cowell turned to speak to his wife, and was seen 'no more.' The domestic dispute

must have been resolved as in early October William Hall delivered 500 feet of timber to Cowell to repair his house, presumably Carlisle's former home (McLennan & McLennan 2012: 81).

Two descriptions of Hohi in 1820 can be found from soldiers of the *Dromedary*, the ship in which Marsden made his third visit to New Zealand (Elder 1932: 237–338). James Shepherd also first arrived in New Zealand on this voyage (McCrae 1928: 11). The *Dromedary*, in search of spars, was accompanied by the schooner *Prince Regent*. Ensign McCrae, of the 84th Regiment, was 'much disappointed' by the appearance of the mission. It did not at all meet the standards Marsden had described. The wooden houses of three missionaries and their families were surrounded by a high, strong fence and 'with the exception of Mr. Hall's, were neither clean, nor comfortable' (McCrae 1928: 17). The visiting party was shown the schoolhouse, but were told that the school had not operated for some time. Following this they visited Rangihoua, McCrae noting (1928: 17) that it 'belonged to no particular tribe.' This may have been the time of hiatus between the departure of Kanae in late 1819 and the rise of Towhi as rangatira, although McCrae (1928: 27) does note 'Towe' as chief of 'Ranghehoo.' On the beach, McCrae found a taua returned from the south with a party of prisoners, taken as slaves, and the heads of some slain in battle. Richard Cruise (1957), captain of the 84th Regiment and also part of the visiting party, described the same scene of prisoners brought back from the war expedition to the Thames / Hauraki area. Both young men were particularly struck by the pathos of a young woman, now wife of Towhi's brother, the man who had killed her father in the recent warfare. Her captor threw her the head of her recently slain father, while she wept and slashed herself with a sharp edge of shell, so that as the blood flowed 'in a few minutes not a vestige of her former beauty remained' (Cruise 1957: 43, 78).



Figure 6. Hohi (right) and Rangihoua (left) as depicted by Augustus Earle in 1827 (Rex nan Kivell Collection, National Library of Australia. PIC T176 NK12/139)

Unlike McCrae, Cruise appeared to approve of the mission settlement. The cottages were 'built in the English style, of wood, as neat and as comfortable as their remote situation from the civilised world could admit of' (Cruise 1957:42). Cruise also relates the romantic but tragic story of the young midshipman, Robert Hill, of the *Dromedary* who fell in love with a daughter of Towhi; as a result he became so 'extremely remiss in his duties' that the couple was separated and he was sent on board the vessel (Cruise 1957:165, 167n). Hill eventually fled to Rangihoua where he planned to abandon his former life and live with his lover. He was captured, by some deceit, on board a whaler. Towhi sent a war canoe in pursuit to bring Hill back, but this failed. He escaped from the ship a second time, and met his lover 'in a lonely hut' on the Kaeo riverbank. The couple were found 'with their noses fastened together, and crying and sobbing in the same melancholy manner as is customary with these islanders after they have been separated for any length of time' (Cruise 1957:167). Hill was once again captured and put under arrest. The rangatira was so enraged he declared if anyone from the *Dromedary* landed on the Rangihoua beach 'he should be instantly murdered,' while for some time he continued to express astonishment that this marriage had been prevented (Cruise 1957:166).

Seven years later, during a three day stay at Rangihoua the English artist Augustus Earle completed a water colour of the Hohi settlement (Figure 6), perhaps the most realistic of the few depictions of the mission. This shows the mission structures arrayed down the Hohi hillside, a fence running along their eastern boundary. Smoke issues from the chimney of a building on one of the higher terraces and from the chimney of a building at the bottom of the valley. Earle's (1909:137) description of residences in the bay includes the pa, the house of 'an Englishman named Hanson. And near this was a church missionary settlement' which implies that the building at the bottom of the valley was the Hansen house. Two structures can be seen on the lower mission terrace, in the location often identified as that of the King house. During his visit in 1827–1828, Earle stayed mainly at Kororareka, on the opposite side of the Bay, but decided on the occasion of Christmas, 1827, it would be appropriate to visit Hohi, the noted English 'church missionary establishment' (Earle 1909:137). In company with the captains of two whalers then in the harbour, Earle crossed to 'Te Puna' in two whaleboats, with everyone contributing towards a 'picnic feast' (Earle 1909:138). Earle anticipated the 'joyful surprise, the hearty welcome, the smiling faces' that would take place as they approached the cottages with 'white smoke curling out of the chimneys' of his countrymen; but in this he was deceived. As the boats pulled up on the shore, the missionaries withdrew to their houses inside the fence, closed the gates and doors behind them and 'gazed at us from their windows' (Earle 1909:138). Perhaps Earle was rather naïve in his understandings of the relationship between missionaries and whalers. This related to the conflict over trade in muskets and the issue of prostitution. The visiting party instead sent a bowl of punch to Rangihoua, 'the residence of an intelligent chief, called Warri Pork,' where

they did receive a warm welcome (Earle 1909:137). Earle stayed three days at the pa and enjoyed the generosity of his hosts. He also completed several watercolours of the pa.

The Hohi mission persisted until 1832, by which time the population of Rangihoua was reduced and the main focus of missionary activity had shifted, in tandem with Ngapuhi dynamics, towards Kerikeri, Waimate and Paihia.

2.4 Mission Buildings

2.4.1 Housing

The first missionary abode consisted of a raupo whare, hastily constructed to house all the settlers (Elder 1932: 94, 96). This shelter, 14 feet by 60 feet, was divided into four sections, one for each family. The mission tradesmen were also housed there, while Marsden may have kept to a cabin on board the *Active*, until he left to return to Parramatta. The whare had:

no Chimney in it it will neither keep wind nor rain out, we have no window in it Mr. M [Marsden] gave orders to have it made he says it is very comfortable indeed it will do very well, This is a very wet Day it has been so for this three days on Sunday last Feb 12 it rained very much the watter came through upon our wheat rice bed clothing and the water was half over my shoes in our bedroom from the wetness of the durt floor as our hut is on low flat ground our clothing damp & tho we do all we can to keep them dry we have no fire to dry them when it rains as our fire is out of doors for my own part I am in good health but it is uncomfortable indeed for my wife and Child in the state she is in, it will be a great blessing indeed if it does not make her suffer exceedingly as she has taken a severe cold allredy. (King n.d.-a)

This was the structure in which Hannah King gave birth to her second child in February 1815 and was likely to be where Dinah Hall also gave birth a few months later. King's description of the whare, located on 'low flat ground' suggests that it was built on the flat land just above the beach at Hohi.

The carpenter, William Hall, immediately began work on constructing houses for Kendall, King and himself. The required timber had to be purchased from Pomare and Te Koki near Kawakawa, in the south side of the Bay. This was rafted across the habour and dragged to sawpits above the beach at Hohi, where Maori labourers were employed to saw the logs into planks for building. Much of this timber was kahikatea (Elder 1932:95), and not suitable as a permanent building material, as the brethren would later find out.

Few journals appear to have survived from the first year of the Hohi settlement, although letters sent to Marsden and to the CMS provide some record. William Hall's journal (McLennan & McLennan 2012), extant from the beginning of 1816 through to his departure from Hohi in

1825, provides one of the best sources of information for structures at the mission. During September 1815 (Binney 2005:50), William and Dinah Hall had moved with their children to Waitangi, where they had purchased 50 acres of land (McLennan & McLennan 2012:7). By the end of January, the Halls were back at Hohi after their house had been sacked, William and Dinah attacked and Dinah left with an eye injury. (This event was said to vindicate Marsden's choice of Hohi as the best location for the mission.) Hall retrieved the Waitangi building materials along with bricks from the tryworks of the *Catherine* to reconstruct his house at Hohi. The family moved into this on 30 April 1816 (*ibid.*:6–13). Kendall and his family moved into their house at the beginning of April, while Thomas Hansen was constructing his own house at about the same time, close to the Hohi stream. In the same month, Hall laid the foundations for a schoolhouse (*ibid.*:11–13). The Kings' house was completed in May, Hall (*ibid.*:14) remarking 'This week Mr King and Thomas Hansen have both shifted out of the thatched huts.' Thorn the carpenter built the Kings' house but, not knowing how to construct the roof properly, had to do this again. The raupo whare was pulled down by about 18 May, after Maori had broken in through holes in the walls, robbing firstly the convict Campbell 'of nearly all his cloathing' while he was asleep, and then Thomas Hansen, knocking him down in the process. This description suggests that the whare was constructed with interior partitions, as Marsden described. Houses were built for workers. Hall mentions houses belonging to Carlisle (Hall was constructing this on 30 October 1816), Conroy, blacksmith Walter Hall and his wife as well as others. Repairs and extensions to buildings were ongoing, such as the construction of 'skillings'. As some mission personnel left ('ticket of leave' convicts Hall, Conroy, Campbell and their wives, and brickmaker Tully all left in November 1816), new arrivals would move into vacant houses for varying periods of time. Outbuildings such as barns, threshing houses and smithies were also constructed.

There were times when work could not be continued. During October 1816, the sawyers stopped working 'on account of the scarcity of provisions. We have neither Tea Coffee nor Wheat sufficient to Support a working man and I have served out the last of the potatoes I have got to spare, things are very melancholy at present ...' (*ibid.*:21). At other times endemic conflict brought work to a halt. In June 1816, a physical fight erupted between Kendall and Walter Hall. Kendall cut or stabbed Hall with a chisel and Hall's wife was accidentally shot. The whole settlement spent the following week in 'confusion and disorder,' while due to his injuries Walter Hall was unable to work for six weeks (*ibid.*:16–17).

2.4.2 The School

Schooling for Maori and European children was conducted initially in Kendall's portion of the communal raupo whare (Binney 2005:57; Nicholas 1817 I:15). Hall worked throughout the winter of 1816 on a schoolhouse, until on 7 July 1816 John King read 'the service in the new School-

house for the first time' although it still required finishing, including the construction of 'sleeping places,' possibly in a loft floor (McLennan & McLennan 2012:18). The structure, said to measure 30 feet by 18 feet, had 'a small apartment raised seven inches above the floor intended for the teachers and European children, divided off with a low partition about breast height' (Elder 1932:222). Supplies of clothing and food were required, otherwise the children would not attend. When these had finally arrived, the school was officially opened in August 1816 with 33 pupils aged between seven and twenty years of age. By April 1817 the roll had risen to 70 (Elder 1934:128; Binney 2005:59), the maximum number Kendall could cope with. In 1816, Kendall wrote to the CMS in Britain, requesting trade articles that could be given to pupils, including thimbles, needles, knives, hair combs, and boys' whistles, 'or any other toys that will take little room (made of iron)' in return for school attendance (Elder 1934:130). By the end of 1818 numbers had declined due to a lack of food; King and Hall complained that the settlement's own supplies were being diverted to the school. Kendall's pleas to the CMS for a separate allowance for school food supplies were not met, and accordingly the school foundered (Binney 2005:59; Elder 1934:143–4; Kendall n.d.-b).

The schoolhouse was used as the mission store for a time after the school itself had closed (King n.d.-c:13 Aug. 1819). Supplies were taken from the building to the store at the new Kerikeri mission in 1819 (Barton 1927:59). By the end of 1822 the schoolhouse was in a poor condition. On Christmas Day 1822 Thomas, eldest son of Jane and Thomas Kendall, announced his intention 'to put the schoolhouse which is now in a ruinous condition into good repair at the commencement of the coming year' (Kendall Jnr. n.d.:25 Dec. 1822). His journal for the following month records work he and Cowell carried out, digging a drain between the Kendall house and the school house, carrying out other repairs and creating a flat path between the Kendall house and the school; then he spent six days digging a drain at the back of the house, dragging timber from the beach to the house, and using slabs of this to create a 'road' to the school. Thomas Kendall's good intentions were cut short, however, by the family's forced removal to Matawhi Bay in February 1823 (Binney 2005; Kendall Jnr. n.d.).

Despite Kendall's absence, John King began teaching again. On 15 August the school recommenced in Carlisle's house with just seven children (Elder 1932:385; King n.d.-c:10 Dec. 1823; McLennan & McLennan 2012:87). By September 1823 the children appear to have moved back to the schoolhouse, as William Hall dug a new drain at the back of the building and built a new table for the school (McLennan & McLennan 2012:87). He carried out repairs to the floor and built a loft; later he repaired the fence to the school yard and made a new gate (or 'door') through it (*ibid.*:89).

Plundering continued even a decade (and beyond) after Hohi's establishment. A party from Matawhi Bay ransacked Kendall's empty house in late 1823, perhaps as utu for the CMS expulsion of Kendall, Hongi's close ally. Weath-

erboards were torn off, holes made in the walls, windows broken. Hall (*ibid.*:88) paid off the chief, Wairua, with an axe, but more materials were taken too. Some six months later, worse damage was inflicted by a taua assembled on the beach, waiting for Hongi on the way to North Cape (King n.d.-c: 20–22 Apr. 1824). Hall subsequently recorded:

they had been exceedingly rude ... They broke open the house lately occupied by Mr Kendall and tore off the Bolts and locks, and broke the Windows all to pieces, both the Glass and the Frames, they did not leave a whole square of Glass about the whole premisses. They also tore off the Weatherboards, of the Back of the Chapel and School-house and went in through the Wall, and tore the lock off the Closet with the expectation of getting the Children's Cloathing, but Mr King had removed them before; they took away the Alphabets that were hanging against the wall, tore the fastening off the Reading Desk, and broke the Windows. (McLennan & McLennan 2012: 92).

John King brought Hongi up from the beach to control the taua; Hongi caught 'one of them and gave him a good beating,' while King nailed up all the windows and doors. Hongi and Te Koki then argued over whose people were responsible for the sacking, Hongi's or Te Koki's. Te Koki took his men and 'went back home' while Hongi and his party proceeded on to North Cape (King n.d.-c: 20–22 Apr. 1824). Binney's (2005:19) argument that this taua muru was acting 'in reprisal for the mission's treatment of Kendall,' is perhaps problematic given Te Koki's likely responsibility for the event, but it does illustrate Hohi's continuing dependence on the authority of Hongi for its safety. The following Monday, at the monthly meeting held at Hohi, the committee passed a resolution to pull down the 'old houses' immediately. By the following Saturday, 8 May, with the help of Puckey and his son from Kerikeri, they had 'completely cleared away the old houses and fence lately occupied by Mr. Kendall,' including the schoolhouse. They salvaged as much material as possible (Elder 1934: 233). During the following week the back wall of the chapel was repaired and a new fence, 7 feet high, was erected behind the building, 'inclosing a large piece of ground' (McLennan & McLennan 2012: 93).

By early 1825, the year he returned to Port Jackson, William Hall (CMS n.d.; see also McLennan & McLennan 2012: 96–100) had built another schoolhouse '20 ft by 12 convenient to Mr King's dwelling so that he may have the boys more immediately under his eye at all times.' While both boys and girls attended the first school (Elder 1932: 222), only boys attended the second school run by John King, while girls were taught by the missionary wives in their homes (CMS n.d.). It was always the missionaries' intention to separate the children by gender. In 1816, Kendall had written to the Society, noting this and the plan to build another schoolhouse for the purpose (Elder 1934: 130).

2.4.3 The Chapel

Initially the schoolhouse was also used as a chapel and meeting house, with services held there on Sundays (Elder 1934: 138). William Hall noted in January of 1822 that the captains and crews of ships in the harbour attended services, 'so that our chapel [the school] is often filled' (Elder 1934: 226). Kendall first signalled the need for a church or chapel in a letter to the Society in December 1818 (Elder 1934: 144), repeated again a year later (Elder 1934: 147). By this date, Kendall was blaming William Hall for not having built the church. Following his return from the voyage to England in 1820, in the company of Hongi and Waikato, Kendall's relations with his fellow missionaries, Marsden and the CMS were deteriorating. This is demonstrated in a harshly worded letter from Kendall to Marsden of September 1821, complaining of Marsden's objections to building a church at Hohi (Elder 1934: 177). By 1822, Kendall addressed another letter to William Hall, suggesting that they bury 'all past animosities in oblivion' and work together to complete the delayed building; most of the materials had already been collected (Elder 1934: 187). A request to Marsden for carpenters to build the structure was met with a firm rebuke, bringing his expulsion from the CMS – Kendall by this time was 'living in open and avowed fornication with a heathen in the midst of the poor heathens amongst whom you dwell' (Marsden, in Elder 1934: 188). Marsden could not understand why a minister 'living in fornication' would want a church; 'who will come to hear you preach?' Kendall responded to these refusals by instead constructing the first church at Kaihiki, the small bay on the Te Puna Inlet, where Hauraki was the rangatira (Kendall Jnr. n.d.; Binney 2005). Kendall named the church and the bay, 'Bethell.'

First mention of the Hohi chapel appears in Hall's journal in April 1824 (McLennan & McLennan 2012: 91). Despite the correspondence over the construction of this, there is no mention of its completion or other details, apart from the repairs it required following the sacking in 1824 (see 2.4.2). It is possible that the church bell Thomas Kendall junior referred to hanging and building a roof over in November 1822 may have been at this chapel rather than the Kaihiki church, as no mention is made of Kaihiki during those few days (Kendall Jnr. n.d.: 14–17 November). The Kaihiki church was completed by about 2 October 1822, measuring 30 feet by 18 feet (*ibid.*: 2 October 1822).

2.5 A Carpenter's Tale: Thomas Surfleet Kendall

Thomas Surfleet Kendall, the third child and eldest son of Thomas and Jane Kendall, was about seven years old when the Kendall family arrived at Hohi in 1814. In February 1820 Samuel Marsden 'directed Mr. Kendall's eldest son to be put into the carpenters' gang, and his daughter into the school' to teach (Barton 1927: 36). Thomas' terse journal entries from late 1822 until the Kendalls left Hohi early the following year shed light on the details of some of the Hohi buildings and the methods used to construct

these (Kendall Jnr. n.d.). When fifteen year old Thomas began working as a carpenter at Hohi in 1822, many of the first buildings, constructed out of kahikatea, had begun to decay and were in desperate need of repair.

In the sawpits, Maori workers cut logs rafted across the Bay into planks of the required lengths and thickness. These had to be planed before being used for weatherboarding, interior lining, flooring and roofing. When Thomas needed a ladder for roofing the Kendall house, he first had to make it, then planed boards for the roof. Boards to repair the front of the house had to be planed and 'beaded', possibly for a more decorative finish, then painted. Sometimes Thomas senior assisted his son, taking the rotten timber off the house and nailing on new boards; at other times he was 'superintending' the sawyers working at the sawpit and sharpening pit saws. Much time was spent on this. 'Water troughs' collected water from (or on?) the roof of the house; spouting took the water from the eaves. In October of 1822, Thomas made a window for the kitchen, 11 feet by 3¼, later noting that he had used 75 squares of glass. Two days later he was 'employed in casing 2 Windows for the study and the parlour' (Kendall Jnr. n.d.: 21 Oct. 1822), and later, he repaired the sitting room chimney. In late November Thomas levelled the ground between the Kendall house and the school, and spent the next few days 'laying the passage floor,' presumably in the Kendall house (*ibid.*: 28 November – 2 December).

Thomas junior made furniture, too, noting 'employed in making a child's chair,' perhaps for a younger brother or sister, and a box for his sister Elizabeth in November 1822. At the same time, he was making a frame for the church bell (described above), and rabbit coops. No doubt these animals provided an easy source of food. After roofing the church bell, Thomas was set to construct an observatory, then had to paint it.

New Year's Eve of 1822 was spent 'in cutting up pigs and sawing boards for the roof of the house.' Thomas senior bought the pigs the day before, 'for money,' – this was a scarce commodity and not the usual kind of transaction for the time. Bartering for goods would have been much more common (Middleton 2007). The New Year began with laying more slabs of wood for a path at the back of the house and rowing to Kerikeri and back to get 1.5 cwt (about 75 kilograms) of salt – likely to have been required for salting the pork into barrels, for long keeping. More pigs were killed a few days later, more drains dug and more slab paths laid.

In a significant note, with the impending expulsion of Kendall from the CMS and what must have been resulting turmoil for the family, Thomas junior notes 'the Rev. Thos Kendall paid a friendly visit to Shunghee at Te Kidikidi where he remained the night' (Kendall Jnr. n.d.: 1 Feb. 1823) (Hongi at this time was planning for the Kendalls to move to the Kerikeri mission, to be near him.) Meanwhile, during January 1823 Thomas junior continued with repairs of Cowell's house, laying new ground plates and floor joists,

flooring the loft, planing boards for the sitting room and making a parlour door. Only a few days after noting his father's visit to Hongi at Kerikeri, Thomas reports merely that he is making packing cases; the next two weeks was spent in this task, while his father was absent from Rangihoua. On the 26th February, Thomas tells of the captains of three ships 'assisting us gratuitously with 7 whaleboats in removing stores & household furniture from the settlement at Rangihoua to the residence of Pomare, now called Pater Noster Valley.' Here, young Thomas began again the same repetitive tasks he had described at Hohi; creating and roofing a saw pit, sawing and planing timber for a new house, putting together joinery, building the house and chimney, rowing back to Rangihoua for family goods and to Kerikeri and Waitangi for supplies.

2.6 Deaths and Burials

On the morning of 26 July 1816, the settlement was shocked by the sudden death of Sarah Shergold, wife of John, possibly one of the sawyers. She became the first person to be buried at Hohi (Appendix). This was the first death in over eighteen months of the mission's existence, with nearly thirty people. 'No work was done in the settlement this day but a grave dug and a Coffin made' (McLennan & McLennan 2012: 18). William Hall thought perhaps the mission had considered itself 'too secure and not been thankful enough for ... distinguished mercies,' attributing the death to the God of Christianity. A week later he put a fence, 'a Substantial palisading' around her grave (*ibid.*: 19). The next death in the mission took place in November 1818, when Thomas Holloway King, the three year old child of John and Hannah, born in February 1815 just after their arrival at Hohi, died of 'consumption'. King's comment, 'we therefore did not know what to give him suitable to his case,' (Elder 1934: 142) points to the missionaries' helplessness when faced with major medical issues. Harriet Shepherd, three year old daughter of James and Harriet Shepherd, died in September 1828 of whooping cough (Kemp n.d.: 206). Two further young children of John and Hannah King died at Hohi and were buried there. During the 1820s a number of seamen were also buried in the cemetery. Some were injured on board ships, or were taken ashore due to illness, as was the daughter of Brown of the 84th Regiment (from the *Dromedary*) in 1820 (Cruise 1957: 104).

After the demise of the settlement it continued to be a burial place for its community. Hannah and John King were interred there in 1851 and 1854 respectively, while several more of their children and other Hansen relatives joined them later in the nineteenth century.

2.7 Abandonment

In 1828, the CMS committee proposed to close the Hohi mission and for Shepherd and King to move to Kerikeri. Rangihoua was now at the margins of its operations as the CMS planned to move outwards, beyond the Bay of Islands. King and Shepherd argued to move the station to

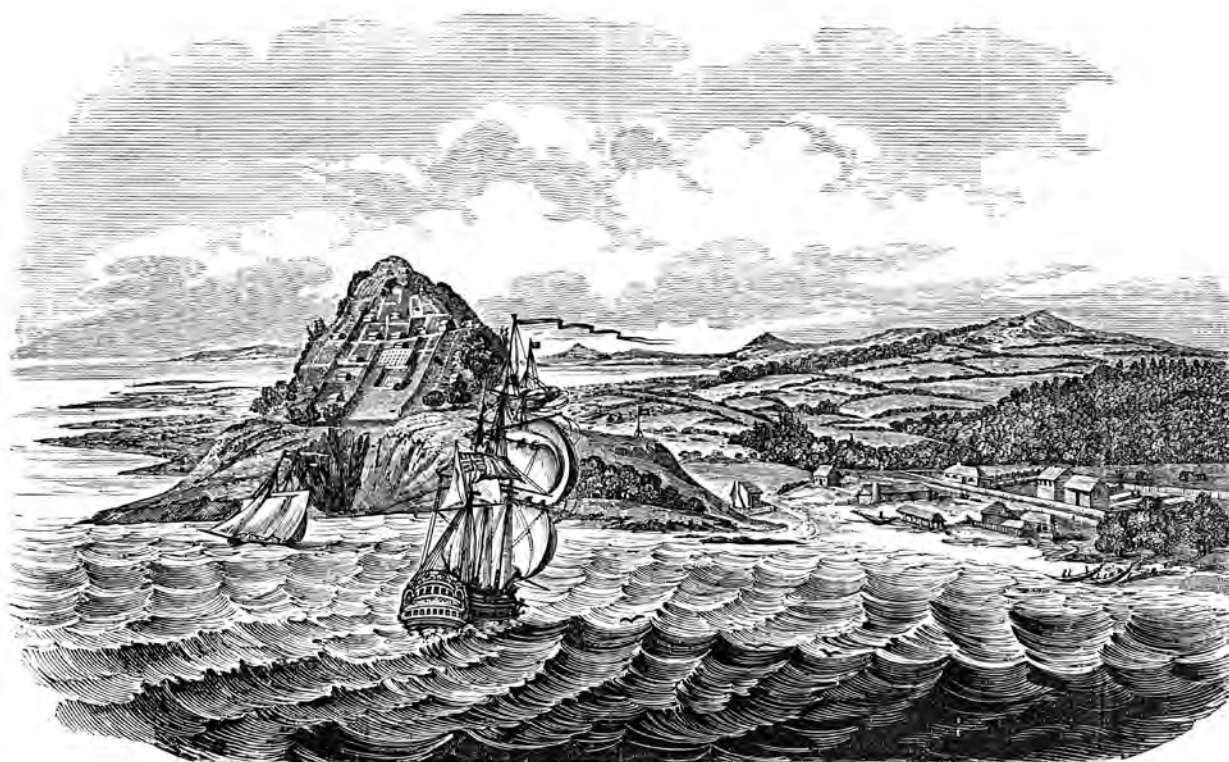
Te Puna. After fifteen years of living at Hohi, King fought to maintain his relationship with the people and place of Rangihoua. He also wanted to remain where his children were buried, 'this is the principle [sic] thing I feel of a private nature, we are much attached to the natives of this place especially to the rising generation' (King n.d.-d: 22 June 1829). King and Shepherd each began building houses at Te Puna in 1828, although the decision about whether to move the Rangihoua mission there was not finally agreed to until 1830 (Middleton 2005c: 69). On a visit in this year, Marsden described the Hohi houses as not fit to live in, no better than pigsties. The Shepherd and King families both moved to Te Puna in 1832. Only a year later, the Shepherds moved on to Whangaroa, while John and Hannah King remained at Te Puna until their deaths in the 1850s. From the far side of the pa, they continued the same work as at Hohi, teaching and catechizing children from Rangihoua, while John King 'itinerated' to villages along the coast to the north and up the Te Puna Inlet (Middleton 2005, 2008). A remarkably idealised representation of Hohi and Rangihoua (Figure 7) was depicted in the Church Missionary Register in 1832, the year of Hohi's abandonment.

In March 1834, soon after Hohi's abandonment, the *Alligator* anchored in the bay below the pa. While some of the officers visited Te Puna, around the bay, Lieutenant Thomas Woore sketched Rangihoua and the mission buildings that remained near the shore (Figure 8). From the missionary point of view, Hohi became a 'sacred site', a destination for pilgrimages. Richard Taylor visited there in January 1841. After spending the night at Te Puna, he:

Walked to see the first missionary settlement at Rangihoua which was afterward abandoned. There are some curious carvings on some of the ruined houses for all are deserted a few sweet briar bushes are tokens of it having once been the abode of civilized man it was abandoned on account of its inconvenient position being on the side of a very steep hill. (Taylor n.d.: 223)

Rev. John Kinder also made the pilgrimage, taking what must be the first photograph of Hohi, showing the graveyard outlined by a low white fence (Figure 9). Other missionary visitors included Henry Williams, eldest son of Henry and Marianne, who recorded a visit in March 1896 in his journal and removed wood from one of the houses that was still standing (Williams n.d.). Archdeacon Walsh appears to have frequently sailed the bays in the 1890s, noting the historic sites in one of his drawings (Middleton 2005c: Figure 4.3; Figure 4.4 shows Motuapo, likely to be the tapu island where Te Pahi was attacked in 1810).

In February 1905 Thomas Hocken visited Hohi with John Tollis Hansen, youngest son of Thomas Hansen Snr, who pointed out the locations of several features of the former settlement, which Hocken sketched (Figure 10). A roofed boat shed occupied a natural U-shaped hollow, and just west of this Marsden had preached the first sermon in 1814 'on a very slightly elevated piece of ground; ... higher up and on a sort of terrace were the houses of King and Hall, and on a terrace still a little higher up and on about a line with the graves of King and Hansen was Kendall's house. The ... houses of others engaged in various work were on



CHURCH MISSIONARY SETTLEMENT OF RANGIHOA, NEW ZEALAND.

Figure 7. Church Missionary Register engraving, 1832 (Alexander Turnbull Library, PUBL-0031-1832-66)



Figure 8. Thomas Woore's 1834 sketch (Alexander Turnbull Library, B-064-003)



Figure 9. John Kinder's 1864 photo (Auckland Museum, B8405)

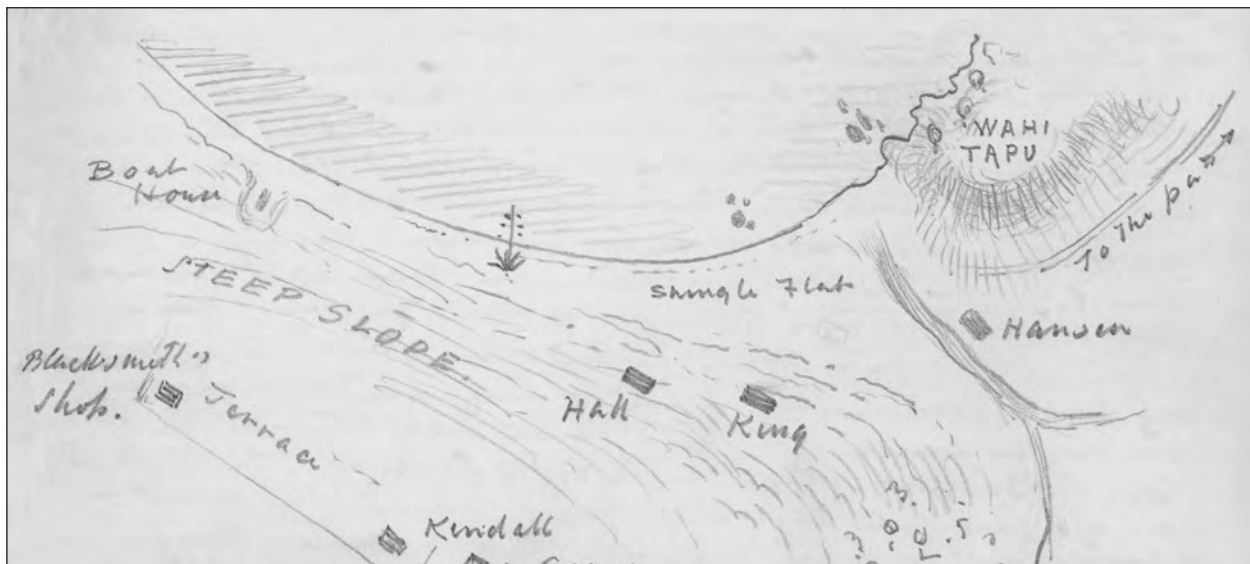


Figure 10. Hocken's 1905 sketch of recalled locations of buildings at Hohi (Thomas Moreland Hocken papers, 'Transcript of Journal' 1879–1905. MISC-MS-1730 [S12–622], Hocken Collections, Uare Taoka o Hākena, University of Otago)

these terraces but above the boathouse and Marsden's spot. Hansen's house was on the other side of the pool or Blind Creek, close to the point where it disappears in the gravel sand' (Hocken n.d.).

The Marsden Cross (Figure 11), a memorial commemorating Marsden's first church service, was erected at Hohi in December 1907, and Proclamation no. 7474, issued in 1930 took Crown ownership of the one acre at Hohi, reserving it for scenic and historic purposes (LINZ n.d.). A monument to the King family members who are buried here was erected in 1971 (Figure 12) and another memorialising the Hansen family in 1991 (Figure 13).

Salvaging of plants introduced to the site by missionaries has been important. In 1967 Bay of Islands historian Ruth Ross (n.d.) recorded that she had dug up the 'last' briar rose growing at Oihi and taken this to her own garden. Some still remain on the scarps between terraces. In 1824, de Blosseville (Sharp 1971: 111) noted that the missionaries were growing fruit trees including 'peach, apple, pear, etc.' While none of these specific orchard trees can be found, two large lemon trees still bear fruit near the Oihi stream, and cuttings have recently been taken from these (*Northland Age* 1 Feb. 2012).



Figure 11. Marsden Cross and plaque



IN MEMORY OF
THE RANGIHOA MISSION 1814-1854
AND OF THOSE BURIED HERE

JOHN KING

Who entered the service of the Church Missionary Society in 1809.
Served here from 1814 until the removal of the mission to TE PUNA
in 1832, and died there on 6 May 1854 Aged 67

His wife HANNAH, died 27 November 1851 Aged 60
and their children also here

THOMAS HOLLOWAY (the first European born in New Zealand)
Born 20 February 1815. Died 12 November 1818.

SAMUEL LEIGH, Died 12 January 1871 Aged 48.

JOSEPH, Died 11 October 1823, Aged 3

JAMES, Died 5 July 1877, Aged 51, and his daughter

MARY, Died 12 April 1831, Aged 10 days.

also THOMAS HANSEN THE YOUNGER (son of the
Captain of the 'ACTIVE' and brother of HANNAH KING)

Died 8 March 1874, Aged 89

and his wife ELIZABETH, Died 25 March 1867, Aged 69.

This spot is part of the acre at OIHI set apart by the Society
as the site for a church and burial ground.

THIS MEMORIAL WAS ERECTED IN 1971 BY THE DESCENDANTS OF JOHN KING

Figure 12. King Memorial with transcription of dedication



IN MEMORY OF
THOMAS HANSEN 1785 - 1874
WHO ARRIVED AT OIHI DECEMBER 1814
ON THE BRIG ACTIVE
NEW ZEALAND'S FIRST EUROPEAN NON-MISSIONARY SETTLER
ALSO ELIZABETH HANSEN (NEE TOLLIS) 1799 - 1867
WHO ARRIVED AT OIHI FEBRUARY 1816
ON THE BRIG ACTIVE
THIS MEMORIAL WAS ERECTED BY THEIR MANY DESCENDANTS
AND UNVEILED BY HER EXCELLENCY THE GOVERNOR GENERAL
DAME CATHERINE TIZARD G.C.M.G., D.B.E..
ON 23 FEBRUARY 1991

Figure 13. Hansen Family Memorial and plaque

Chapter 3: Archaeological Investigations

3.1 Preliminary Surveys

As a first step towards a better understanding of the site DoC archaeologists conducted a differential GPS survey of visible surface features, and Geometria Ltd were commissioned to carry out a geophysical survey of the site. Initial magnetometer survey in 2009 (Bader 2009) was extended and complemented with partial metal detection survey in 2011 to provide a substantially complete coverage of the terraced areas of the reserve (Figure 14). This shows that there are geomagnetic anomalies consistent with burial cuts within the area in which graves are shown in a 1926 survey plan (SO14028), and that approximately half of the terraces fall within the 'original acre' retained by the Church Missionary Society when their Old Land

Claim 56 was subdivided. The magnetometer survey also disclosed anomalies on several of the terraces that may be fireplace features, and in at least some cases these were in close association with clusters of responses from the metal detection survey.

3.2 Investigations in 2012

In recent years the Marsden Cross reserve has been largely covered in kikuyu (*Pennisetum clandestinum*) grass, which obscures all but the most obvious surface features. Prior to the February 2012 field season grass on the foreshore and all the major terraces on the was mown (Figure 15). All visible features were mapped with a Leica TPS 1200 total station and survey data incorporated into a GIS. The site

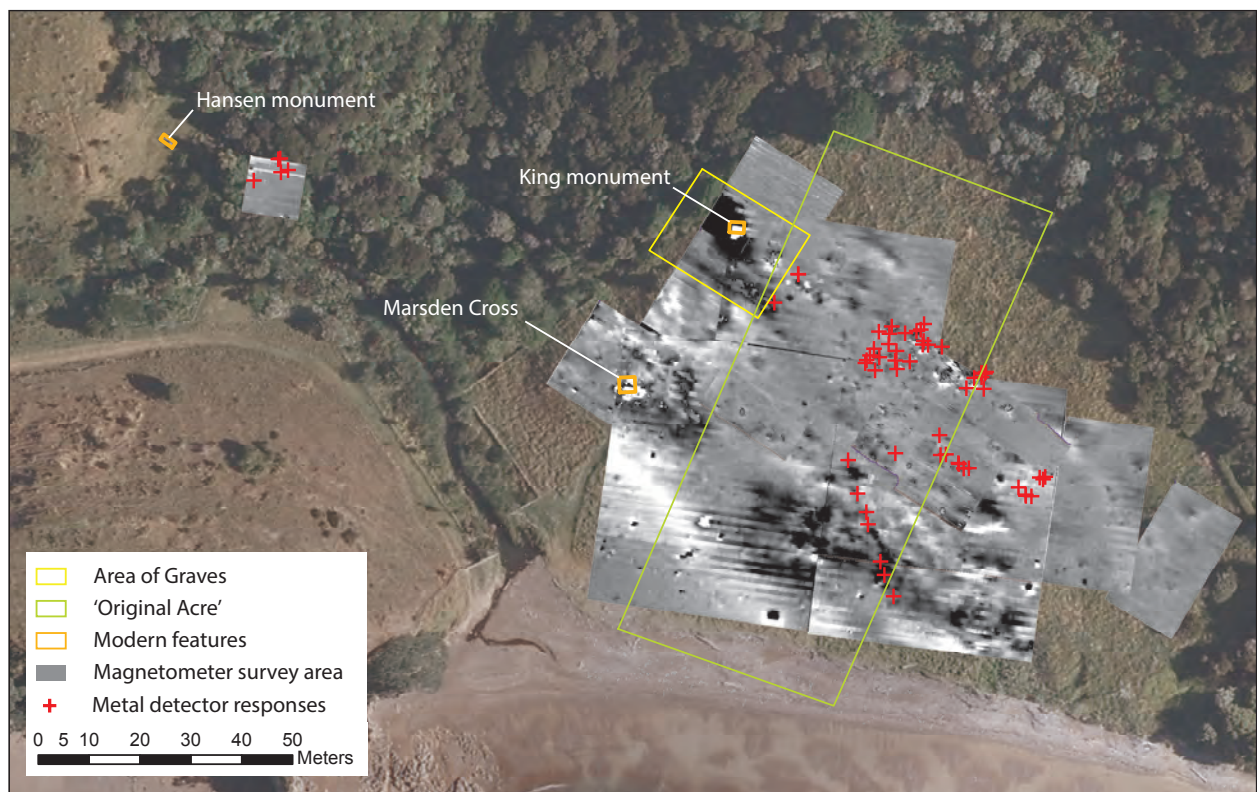


Figure 14. Geophysical and magnetic survey of Hoho



Figure 15. Marsden Cross Reserve in February 2012

plan (Figure 16) drawn from these data shows six major terraces cut into the sloping hillside along with smaller flatish areas and sloping paths, and a low terrace on the flat ground behind the beach. We cannot be sure that there are not further terraces higher up the slope, as suggested by Spencer's plan, or to the east of the main concentration, as

these areas were well covered in kikuyu. The highest terrace is the location of the former mission graveyard, and has a concrete and stone monument commemorating the King family and some of others who are buried there. The lowest of the hillside terraces supports the Marsden Cross memorial, erected in 1907.

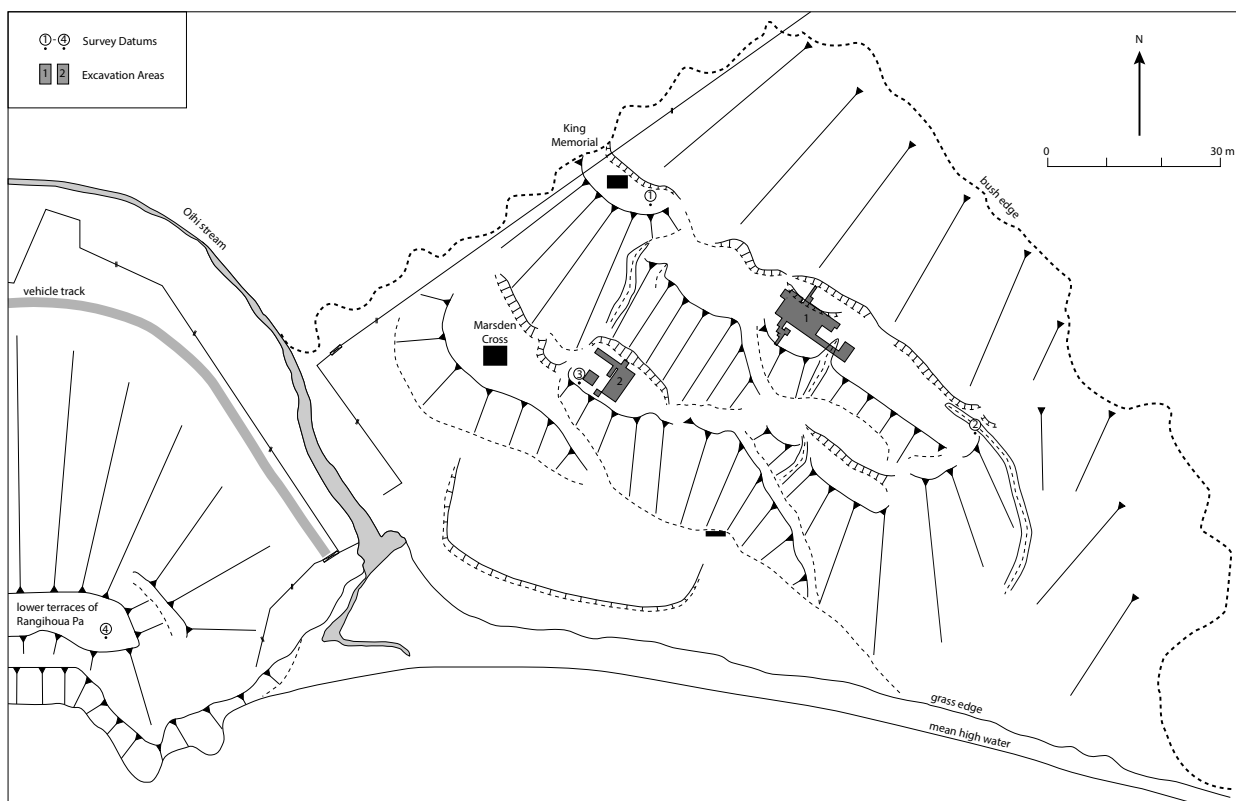


Figure 16. Site plan 2012

An excavation grid was established over the site with an west-east baseline aligned with datum points 1 and 2 along the axis of the upper terraces, and grid north close to magnetic north. Two areas were excavated.

3.2.1 Area 1

The first area selected for investigation was on the ca. 70 m long terrace that dominated the upper part of the mission site. This terrace comprised three components; a gently sloping portion at the western end, a flatter central portion with a slightly raised area at its uphill edge, partially separated by a shallow depression from another flat portion at the eastern end. Both magnetometer and metal detection surveys had yielded high responses on the central part of the terrace. Area 1 was laid out here, initially as an 8 × 4 m area, eventually extending across the shallow depression to the eastern part of the terrace and covering an area of 60.5 m² (Figure 17).

Stratigraphy

Five layers were identified (Figure 18).

Layer 1 was a turf and brown loamy topsoil. Over most of

the area this was 20–25 cm in depth, but it thinned to ca. 10 cm in the N102 row of squares along the scarp separating the higher and lower components of the terrace. Ceramic, glass and metal artefacts were encountered near the base of this layer.

Layer 2 comprised several pebble and/or gravel surfaces. In squares N95–100/W109–110, N103/W107, and those in rows W101–103 layer 2 was a compact layer (2a) of water-rolled pebbles, identical to those common on the beach below, that had clearly been laid down as paving. At the eastern end, in squares N98–100/W96–97, similar pebbles were intermixed with larger angular stones in to a compact surface (2b). Surrounding the southern edge of this and covering the edges of the depression in N98/W99–100 was a loose covering of water-rolled pebbles (2c), which also occurred on the scarp slope in N102/W104–5 (2d). West of this, the scarp slope in N102/W107–111 was loosely covered in fine angular gravel (2e). Ceramic, glass and metal artefacts were common in this layer, especially in component 2a.

Layer 3 was compact mottled yellow-brown clay. This was encountered only in the southern half of the area (Figure 19), and where trenched in squares N93–96/W107 it

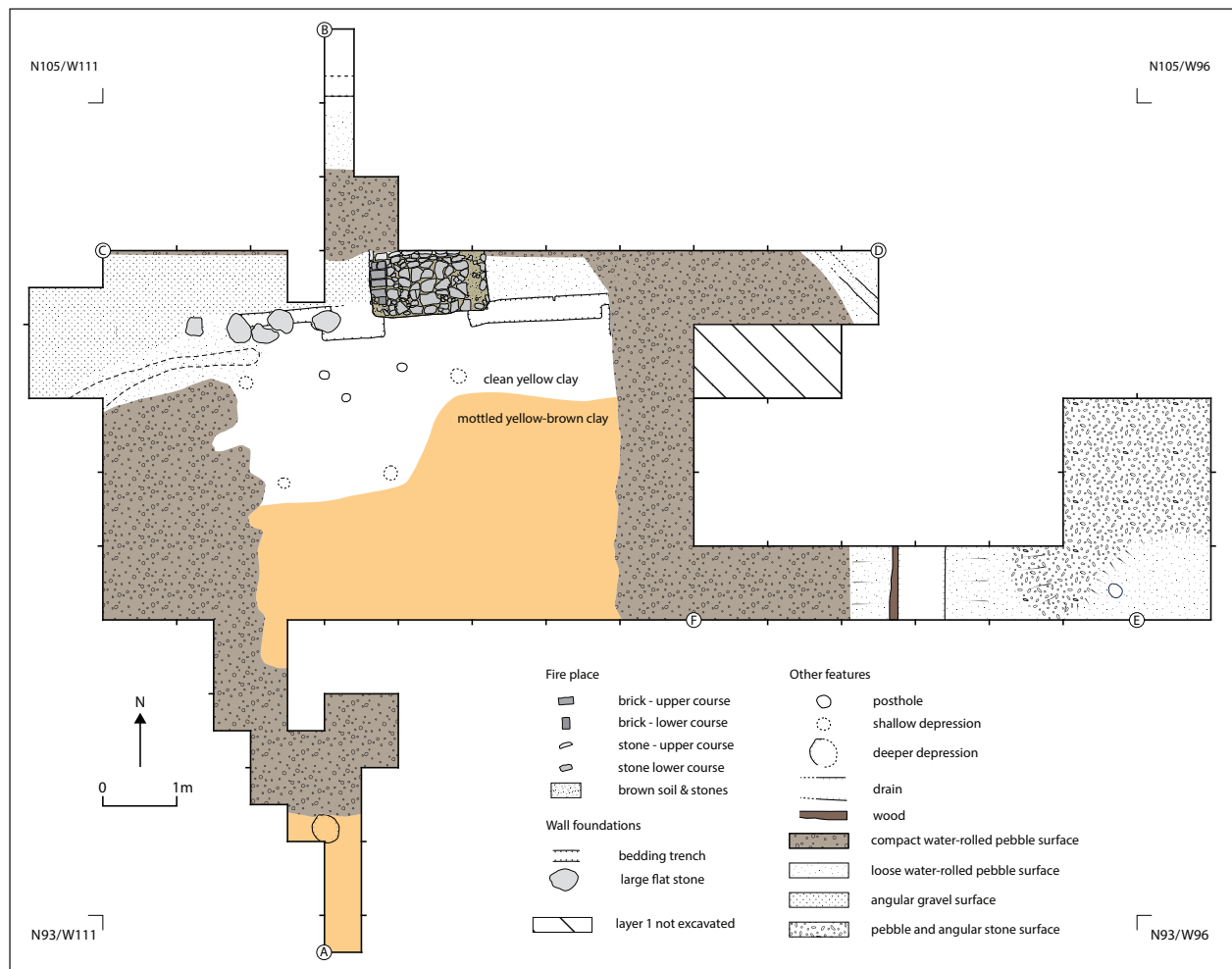


Figure 17. Area 1 plan, showing surfaces after removal of Layer 1

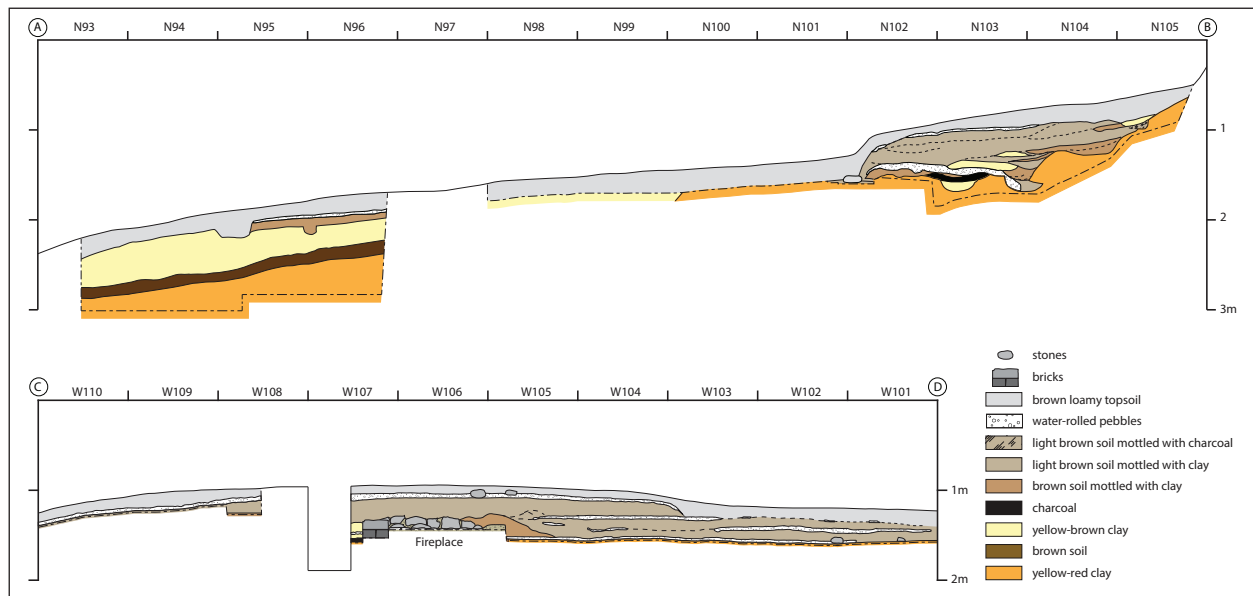


Figure 18. Area 1 stratigraphic profiles

reached depths of up to 50 cm and was found to contain tiny fragments of charcoal indicating that it was redeposited fill used for terrace construction. No artefacts were encountered.

Layer 4 was a brown soil, *ca.* 12–15cm in depth, encountered only in the N93–96/W107 trench. It contained charcoal and fire-cracked stone, but no artefacts. A sample of charcoal was submitted for radiocarbon dating.

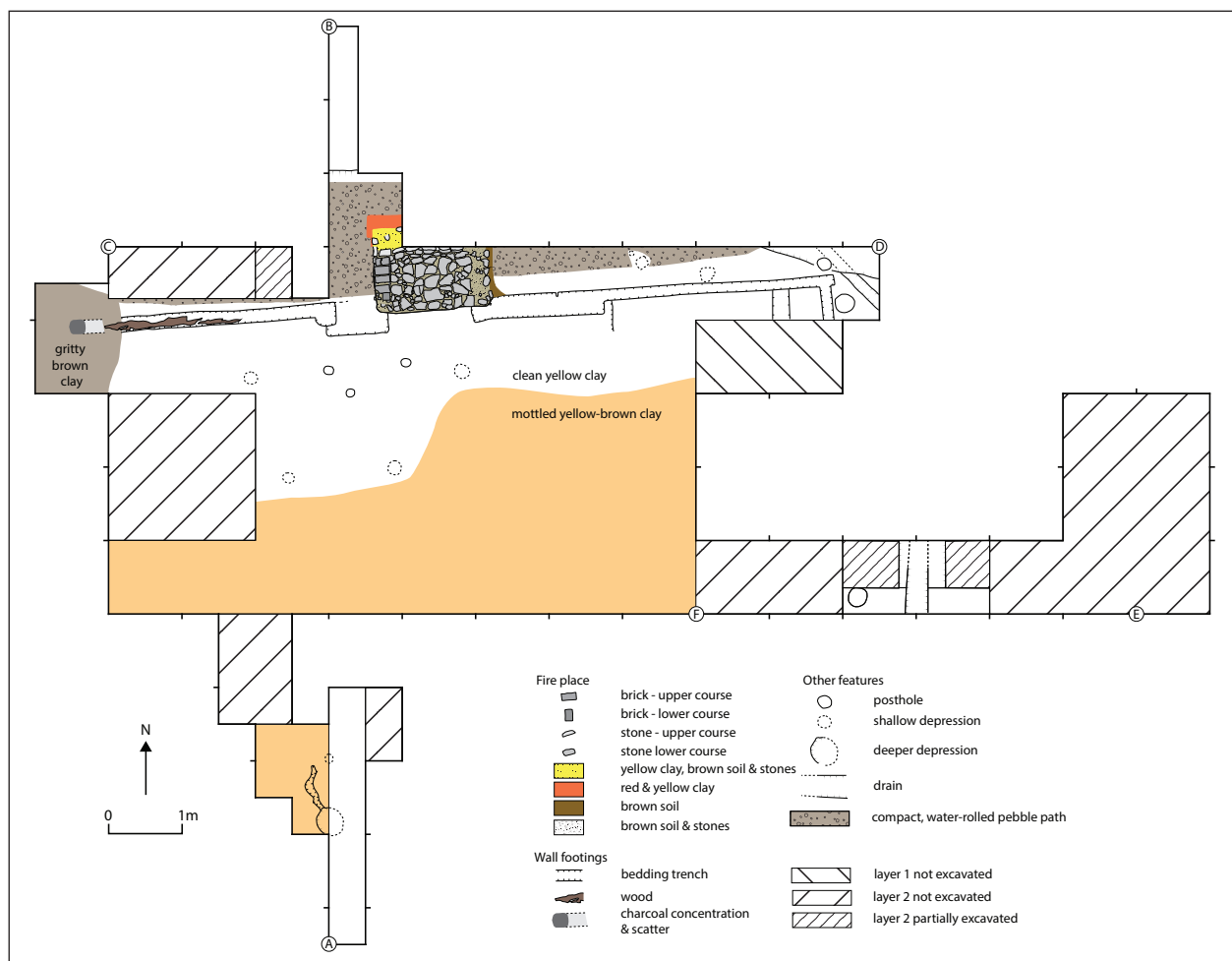


Figure 19. Area 1 showing surfaces below layer 2

Layer 5 was a very compact yellow clay that graded to yellow-red or red where trenched in squares N103–105/W107. No artefacts were encountered in this layer and its depth was not established.

The latter layer was clearly the original clay substrate of the hillside. Initial terrace formation was confined to the southern part of the area, with layer 4 the soil formed on the gently sloping surface of the original terrace. The presence of charcoal and fire-cracked stone, along with the absence of historic period artefacts in this soil suggests occupation of this terrace during the pre-European era. With only a small area (1.75 m²) of this occupation exposed during our investigations there is little that can be said about the nature of activity there.

Layer 3 derives from large scale expansion of the terrace, presumably by cutting into the hillslope that originally extended over the northern part of Area 1. A large number of features that clearly derive from a European style building were cut into the surfaces of both layers 3 and 5, indicating that the second phase of terrace construction occurred during the historic era.

Features

Features encountered in Area 1 are shown in Figure 20.

The most substantial of these was a fireplace (F.2), the base of which consisted of flat stones packed with earth and small stones (Figure 21). Remnants of the chimney sitting above this include two courses of reddish bricks along its western side and, forming the rear wall, two courses of stone backed with earth and clay; bricks along the eastern side appear to have been robbed. The earth and clay and packing exposed at the northwest corner of the fireplace was neatly squared, with an iron nail still protruding from it, suggesting that the chimney had an exterior cladding of wood.

To each side of the fireplace a shallow trench, *ca.* 2.5 cm deep, had been dug into the clay. To the east of the fireplace the trench (F.4) had a broader portion, *ca.* 30.5 cm (1 ft), but was mostly *ca.* 15.2 cm (6 inches), extending around a right angled corner in N101/W102 (Figure 22). Its squared cut shows that this was a bedding trench for three wooden bearers or ground plates with two joining at the corner, and a the second join at the notch in the north edge of F.4a. The timbers either side of this were 7.3 m (24 ft) and just over 1.1 m (3 ft 9 in) in length. Both were probably 6 inches

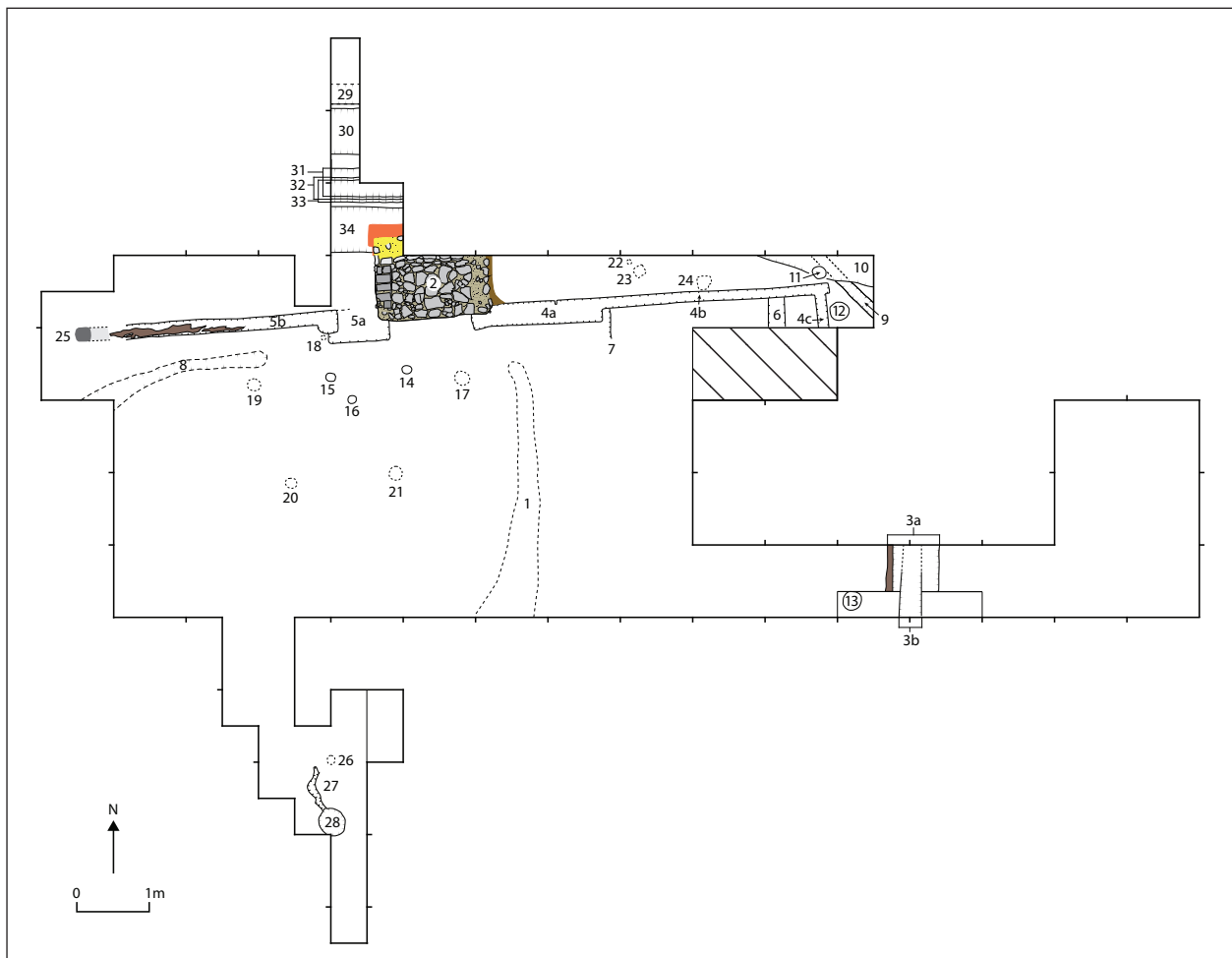


Figure 20. Area 1 features (numbers prefixed F. in text)



Figure 21. Area 1 fireplace



Figure 22. Bedding trench (Feature 4) west of fireplace

wide; reasons are given below for subsequent widening of F.4a. A shallower trench with u-shaped base *ca.* 0.6 m (2 ft) from the corner (F.6) presumably marks the position of a floor joist that was sitting on the bearer. To the west of the fireplace F.5 also had wider and narrower portions. In this case no corner could be found as the trench was not

discernible in the gritty brown clay there, which merged indistinguishably with the gritty soil (layer 2e) spilling off the slope in N102/W110. Timber remnants of a wall bearer were exposed in F.5b (Figure 23), and a patch of charcoal (F.25) shows that one end of this had burnt. The timber remnant was 188 cm long with maximum width and depth of 12 × 4 cm. Part of a cut near the centre of the piece may be all that remains of a mortice joint.



Figure 23. Timber remnant in Feature 5

Bedding trenches were evident only on the uphill side of the structure. Post holes (F.14–16) and shallow depressions (F.17–21) just south of this edge suggest that the rest of the structure was supported on wooden piles and perhaps also large stone foundation blocks. No evidence of floor supports was found in the surface of layer 3, but cuts into this mottled clay are unlikely to have been visible. A possible posthole (F.26) and what might be a drip line and erosion hollow (F.27–28) could mark the southern perimeter of the structure. However they could as easily be root hollows from subsequent vegetation. An alternative indication of the southern wall line is the edge of paving evident in N97/W108. These suggest a north-south dimension of between 4.88 and 6.1 m (16–20 ft).

The compact layer of rounded pebbles making upper layer 2a was clearly a deliberately laid path. This path overlies of narrower portions of bedding trench east of the fire place (F.4b–c, 6), and F.5 is buried by layer 2e spilling from a path along the N103 row and five large stones likely to have been used as bearers. This demonstrates that there was a second smaller structure also centred on the fireplace which stood within the paving. The eastern inner edge of paving aligns with a ridge cut into the basal clay (F.7) and one end of the wider bedding trench (F.4a), suggesting that the later may be replacement foundations during rebuilding. The matching feature (F.5a) on the other side of the fireplace is shorter, ending where the bearer stones begin, suggesting that at least the first four of these are *in situ* foundations of the second structure. A depression (F.8) running from the western inner edge of the paving is likely to be a channel draining water from the roof of structure 2. Another channel (F.1) below the floor of both structures may be an erosion channel, or a creep-way made during under-floor repairs.

Rebuilding is also evident where the raised area north of the fireplace was trenched in N102–105/W107. This showed a series of ditches parallel to the north wall, presumably drains to cut off water running down the slope. The first of these (F.34) was dug before the chimney was constructed. The lack of any infilling or dirtying of the newly cut clay surface indicates that it was backfilled almost immediately, with a very similar clay, mixed with charcoal and stones, with the chimney constructed partially on top of this fill (Figure 24a). A second cut-off drain (F.33) was dug further from the rear wall of the building, then rake-out from a fire including charcoal and shattered stone was tramped into the clay surface (Figure 24b). Further clay packing was added to the back of the chimney, then a path of water-rolled pebbles was laid along the rear wall of the building and a third drain (F.32) dug (Figure 24c), before yet another another drain (F.31) was dug and clay thrown out over part of the path (Figure 24d). Some time appears to have elapsed during which *ca.* 20–25 cm of brown soil accumulated along the rear of the building, burying the early path and associated drain, before a new cut-off drain (F.30) was dug and another path laid, partially covering the clay backing of the chimney (Figure 24e). Further soil accumulated burying the second path and associated drain

before the final drain (F.29) was dug and new paving laid (Figure 24f). It is clear that accumulation of soil in this areas occurred while the building was still standing as the scarp between higher and lower ground follows the wall-line of the structure, and the series of cut-off drains are at progressively higher levels (see Figure 18). Exactly what point in this sequence corresponds with the remodelling of structure 1 into structure 2 is not clear.

The northeastern sector of Area 1 also provides indications of changes over time, with a shallow drain (F.9), overlying another larger drain (F.10). Each of these presumably connects with one or more of the drains identified at the back of the chimney, and feeds into the main drain (F.3) discussed below. One deep posthole (F.11) also cuts through the fill of F.10, while another (F.12) sits just outside the east wall of structure 1, although it may derive from later in time as both it and F.13 to the south are located on the line of the outer edge of paving around structure 2, and are perhaps remnants of a fence between this path and the main drain (F.3). Three shallow rectangular shaped depressions in the basal clay (F.22 – 24) are probably the bases of postholes dug along the line of the second or third paths on the higher ground along the rear wall

Where the excavation crossed the depression in the terrace surface (N98/W99–100) it uncovered a drain showing two phases of digging (Figure 25). The earliest of these (F.3b) was a ditch *ca.* 28 cm wide at the top sloping to 15 cm at the base that had clearly been cut with a spade into the basal clay. It was filled with a dark brown silt that contained a few ceramic, glass and metal items. The original drain was presumably deeper than the *ca.* 16 cm now visible in the clay, with the upper parts of its sides disappearing when it was dug out to form a wider shallow drain (F.3a). The fill of this was a mottled brown soil with scattered charcoal and ceramic, glass and metal artefacts.

The area east of this drain was excavated no deeper than the base of layer 1 due to time constraints.

Summary

Area 1 disclosed evidence of levelling a terrace by pre-European Maori and their use of fire there, before the terrace was enlarged for missionary use. A large building (Figure 26: S.1) was constructed immediately. This was at least 10.36 m (34 ft) on one wall and no more than 6.1 m (20 ft) on the other. It had a stone chimney on the long wall, and if this was centred, the length of this side was 10.82m (35.5 ft). Considerable repair and modification was required at the rear of the chimney, along with repeated effort to drain away water running down the hillslope. There is compelling evidence in the artefacts recovered around this structure that it was the first school built at the mission station (see Chapter 4 below). This was reported to have been 30 ft × 18ft, slightly smaller than the dimensions derived archaeologically. The evidence of repair and drainage work is consistent with what both William Hall and Thomas Kendall Jnr reported doing around the school (Chapter 2).



Figure 24. Construction sequence at northwest corner of chimney

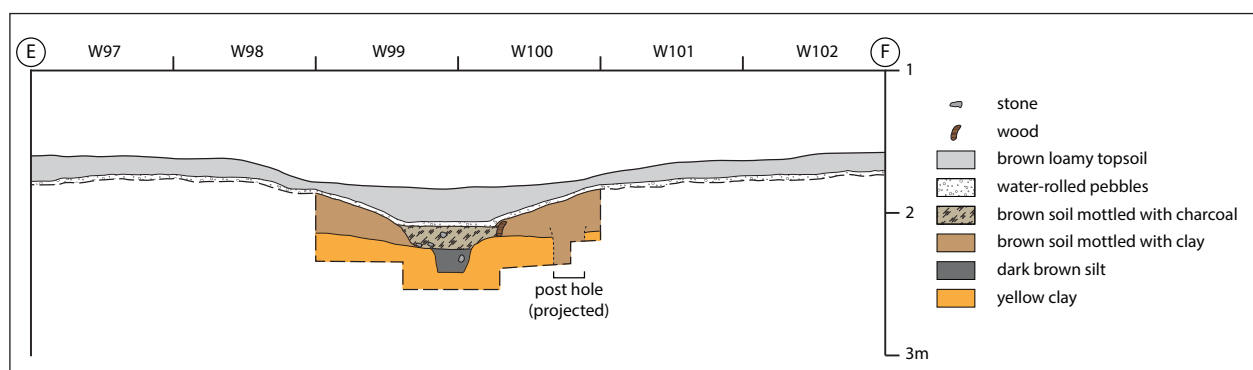


Figure 25. Profile of drain

The building was substantially rebuilt (Figure 26: S.2), symmetrically around the fireplace but much smaller, about 4.88 m (16 ft) square. Both buildings had wooden foundations set into the ground on the uphill side and supported by wooden piles and stone bearers downslope. Pebbles brought up from the beach formed paving around both buildings, and it is from these deposits, along with the under floor space and drain fills that most of the artefacts were recovered. They were also numerous at the base of the topsoil that gradually covered this area.

3.2.2 Area 2

The second area chosen for excavation was the terrace on which Spencer had located a stone-lined fireplace (see Figure 3). Magnetometer survey had identified an anomaly consistent with such a feature near the centre of the ca. 9 m wide and 15 m long terrace, and Area 2 was laid out around this, initially as an 6 × 4 m rectangle which was eventually extended to cover 30.4 m² (Figure 27).

Stratigraphy

Four layers were identified (Figure 28).

Layer 1 was a brown loamy topsoil ca. 15–20 cm in depth.

Ceramic, glass and metal artefacts were encountered at the base of this layer. Along the inner edge of terrace (rows N74–75) this soil was intermixed with clay (*Layer 1b*).

Layer 2 was a yellow-brown mottled clay, which was extremely gritty in the western part of the area (rows w129–132). This deposit was fully excavated only along the south and parts of the eastern edge of the initial rectangle, and only partly excavated elsewhere (Figure 29). *Layer 2* was no more than 5 cm deep in N72–74/W125–128, but extended to ca. 40 cm in N69/W125–127. Ceramic, glass and metal artefacts occurred both at its surface (*layer 2a*), and at greater depth (*layer 2b*).

Layer 3 was a brown soil containing clay nodules, charcoal, and ceramic, glass and metal artefacts. It was encountered only in the southern part of the deeper trench (Figure 29). Along the south edge it reached a depth of ca. 40 cm, but lensed out in N71/W125 (Figure 28).

Layer 4 was a compact yellow clay, in places containing stones of weathered bedrock. No artefacts were encountered in this layer and its depth was not established.

As in Area 1 the compact yellow clay at the base of excavation was clearly the original clay substrate of the hillslope,

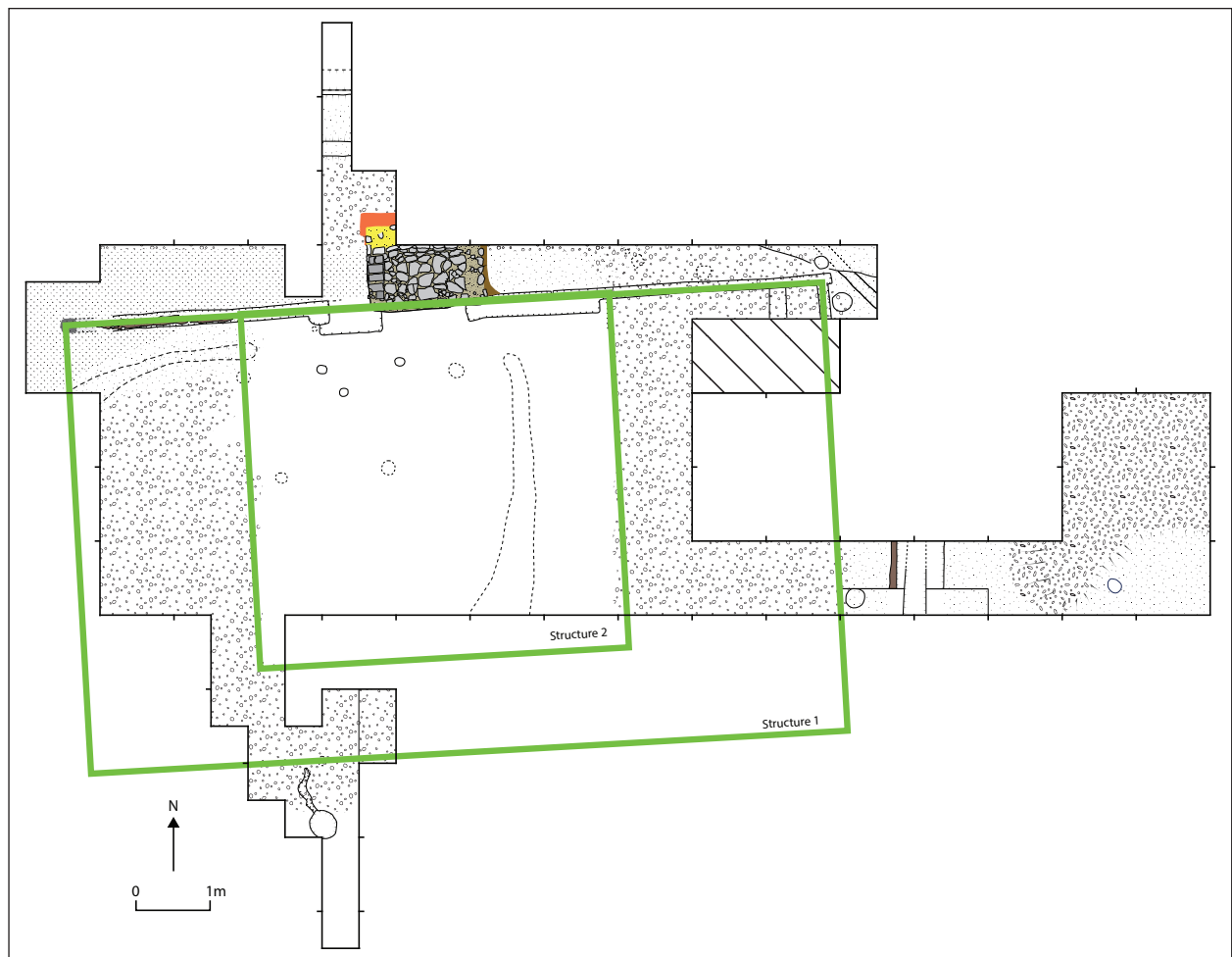


Figure 26. Area 1 showing probable positions of Structures (S1 & S2)

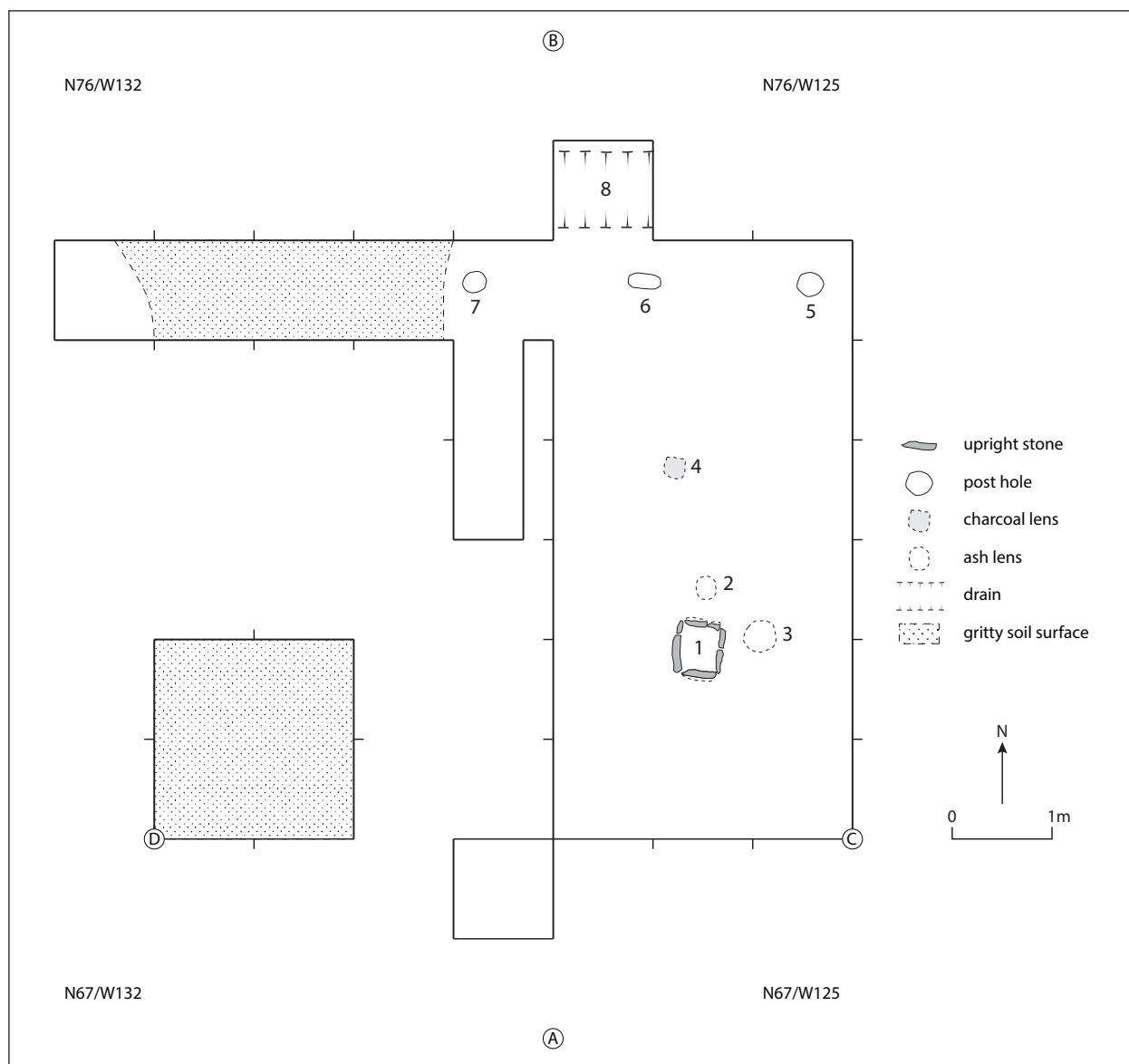


Figure 27. Area 2, showing surfaces beneath layer 1. Numbered features are prefixed F. in text.

with initial terrace formation confined to the southern margin of the area. In this case, however artefacts in the soil that formed on the initial terrace (layer 3) indicate that it was in use during the historic period. Layer 2 derives from digging into the hillside to expand the size of the terrace, and artefacts both within and on top of this layer indicate that this occurred at a similar time during the historic era.

Features

Features encountered in Area 2 and shown in Figure 27. The most substantial feature (F.1) was a stone-lined fire-place (Figure 30) formed of flat scoreaceous basalt stones set on edge in the surface of layer 2. The fill of this feature was indistinguishable from layer 1 and contained minor amounts of charcoal along with clay pipe fragments and sherd of blue-on-white china. Nearby on the flat compact surface were two patches of ash (F.2, 3) and one of charcoal (F.4). Three postholes (F.5–7) formed a row along the

northern side of terrace, and at the foot of the scarp a wide u-shaped drain (F.8).

The postholes were filled with a soil and clay mix that was softer, more crumbly and slightly darker than the surrounding matrix (Figure 31), and were centred just under 3.5 m apart. The extremely hard gritty surface of layer 2 in the western half of the N74 row made it impossible to determine whether the posthole row continued in that direction. Nor could they be found in the mottled clay in N72–3/W128, or anywhere along the southern edge of excavation.

Summary

The initial terrace in Area 2 was about half the width of the present one. Whether it already existed, or was created at the beginning of missionary occupation, the only evidence of activity on it is from that era, although with only 3.7 m² on the layer 3 occupation exposed it is dif-

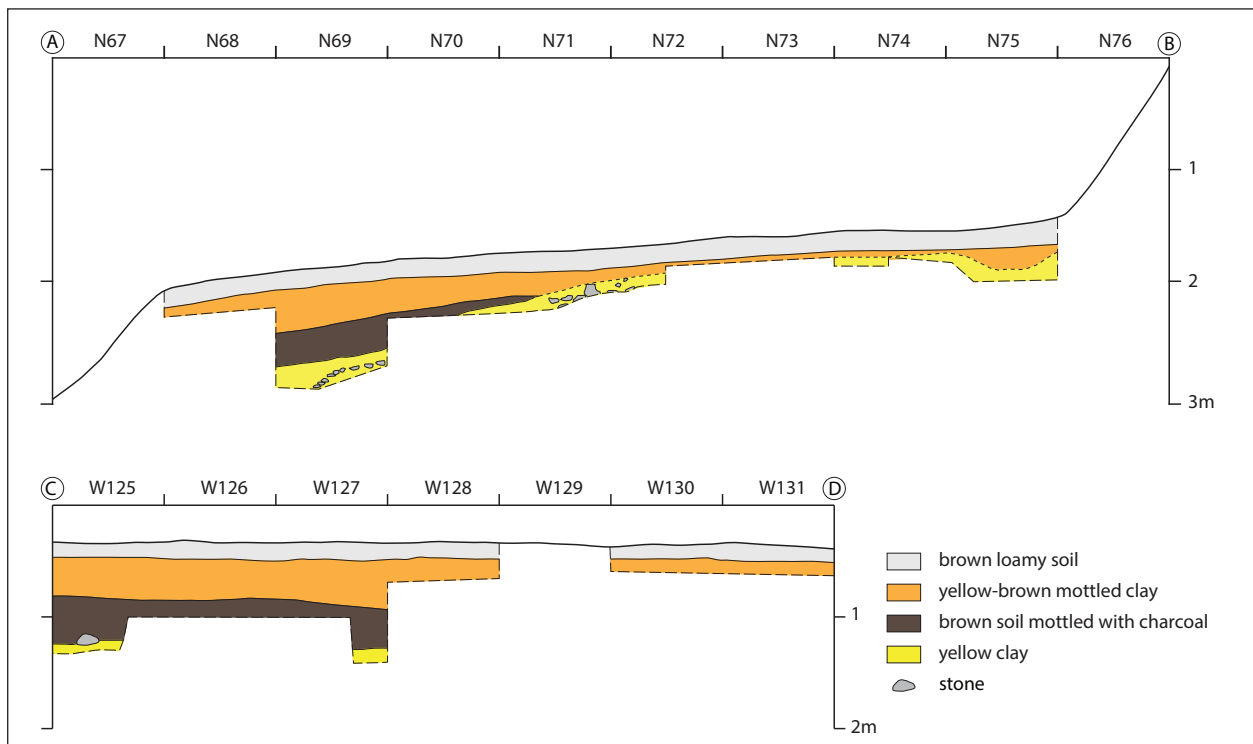


Figure 28. Area 2 profiles

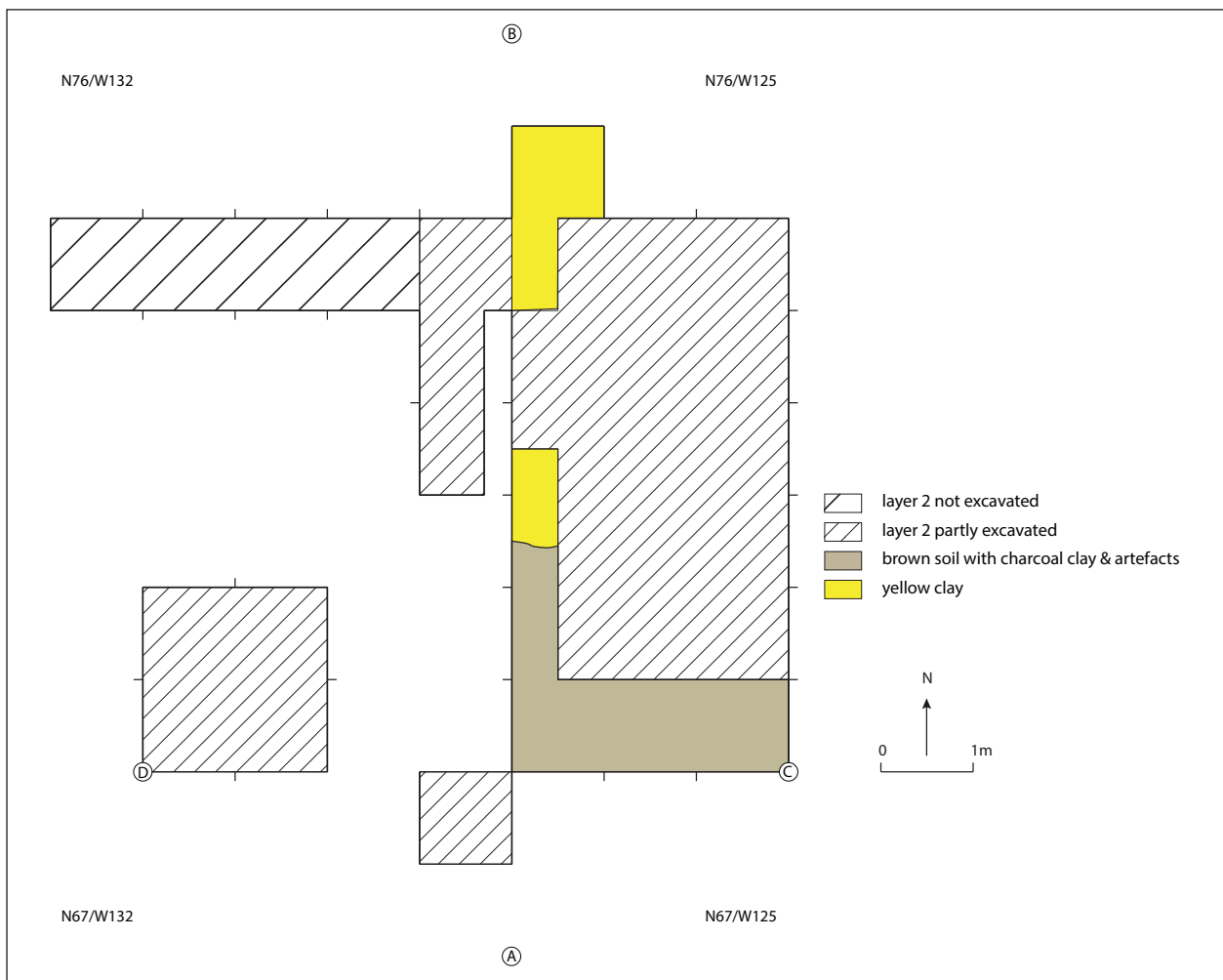


Figure 29. Area 2, showing surfaces beneath layer 2



Figure 30. Area 2 fireplace with ceramic sherd in fill



Figure 31. Posthole (Area 2: F.5)

difficult to be sure exactly what took place there. This was soon buried when the terrace was enlarged. A cut-off ditch was dug to drain water from the back of the terrace and a structure was built there, evidenced by post holes and a stone-lined fireplace. With only three of the former visible, and no corners identified it is impossible to determine dimensions for this building. The fireplace is characteristic of those used in pre-European Maori whare (Leach 1972), but its stratigraphic position along with the artefacts in and around it show that it was built during the course of historic period occupation at Hohi.

Chapter 4: Analysis of Assemblages

4.1 Introduction

All material recovered during excavation was analysed in the Otago Archaeological Laboratory, Department of Anthropology & Archaeology University of Otago by Jessie Garland and Naomi Woods, with specialist assistance as required. Artefacts were cleaned and sorted, in the first instance by material and then by functionally defined analytical categories, in each case grouped by excavated assemblage. Items were then identified, analysed, recorded and described. Quantification procedures are discussed briefly below, while the methods used for analysis of each artefact category are described in the relevant sections that follow.

4.1.1 Methods

Excavated materials in each analytical category were quantified by weight, number of identified specimens (NISP) (Table 3), and minimum number (MN). Specific protocols for determining the latter, which is the smallest number

of items necessary to account for all of the complete and fragmentary specimens, are discussed for each artefact category in the following sections.

MN calculations depend upon how specimens are grouped into assemblages. Two approaches were taken to this. First, items were grouped by the stratigraphic units in each excavated area, and these were inspected for joins and matches that would indicate that there had been intermixing of items between stratigraphic units. Where this was clearly evident, all materials from the stratigraphic units were combined into *analytical assemblages*, and MN calculated for these were used as the basis for inspecting intra-site variation. Second, in view of the likelihood that all parts of the site were occupied near contemporaneously and fragments in two or more areas could potentially derive from the same item, MN were recalculated for a *total site assemblage*, which is the most useful measure for comparison with other sites. For some artefact classes total site MN values calculated in this way are lower than the sum of their MN values in the analytical assemblages, and where this

Table 3. Weight (g) and NISP of materials in excavated assemblages

	Area 1			Area 2				TP	Total
	L1	L2	L3	L1	L2a	L2b	L3		
Weight									
Metal	6096.7	7625.8	1235.7	330.0	62.1	468.7	181.8	–	16000.9
Glass	1551.9	1582.9	120.3	76.3	60.2	85.4	2.0	–	3479.0
Ceramic	2453.3	2994.9	60.8	1461.6	196.1	113.5	47.0	9.6	7336.8
Stone	537.1	112.3	24.4	3.7	1607.8	–	–	–	2285.3
Bone	1.1	41.8	–	–	–	–	–	–	42.9
Other	3.0	–	–	1.6	0.5	–	0.5	–	5.6
Total	10643.1	12357.6	1441.2	1873.2	1926.7	667.6	231.4	9.6	29150.4
NISP									
Metal	837	1122	134	25	30	35	19	–	2202
Glass	946	831	103	32	29	32	3	–	1976
Ceramic	395	252	31	82	87	57	17	2	923
Stone	63	90	21	1	2	–	–	–	177
Bone	1	10	–	–	–	–	–	–	11
Other	11	–	–	1	1	–	1	–	14
Total	2253	2305	289	141	149	124	40	2	5303

is the case a separate total assemblage count is also given.

4.1.2 Excavated and Analytical Assemblages

Excavated materials were initially sorted into assemblages defined by the stratigraphic units identified archaeologically (Table 4). Two of these (D, E) contained no artefacts or faunal remains so are excluded from further discussion here. In Area 1, where the bulk of the artefacts were recovered, there was a patterned arrangement to their stratigraphic distribution. Metal fasteners, window glass and slate pencils were more common in the lower deposits (Assemblages B, C), and were concentrated between the fireplace and the F.3 drain, while ceramic and glass vessels, clay pipes and personal artefacts were more common in layer 1 (Assemblage A) especially above and on

the paving east of the fireplace (Figure 32). However, once analysis of material commenced it was quickly apparent that fragments from at least six ceramic vessels were distributed through these deposits (Figure 33) indicating that the distinction between Assemblages A-C could not be sustained for analytical purposes. These were combined for analysis as Assemblage 1, although stratigraphic and spatial distributions of components will be considered in the sections that follow.

No direct evidence was found of joins and matches between the two uppermost units in Area 2, although there were very close similarities and spatial distributions of items from the contiguous deposits at the base of layer 1 (F) and the surface of layer 2 (G). These were combined for analysis as Assemblage 2.

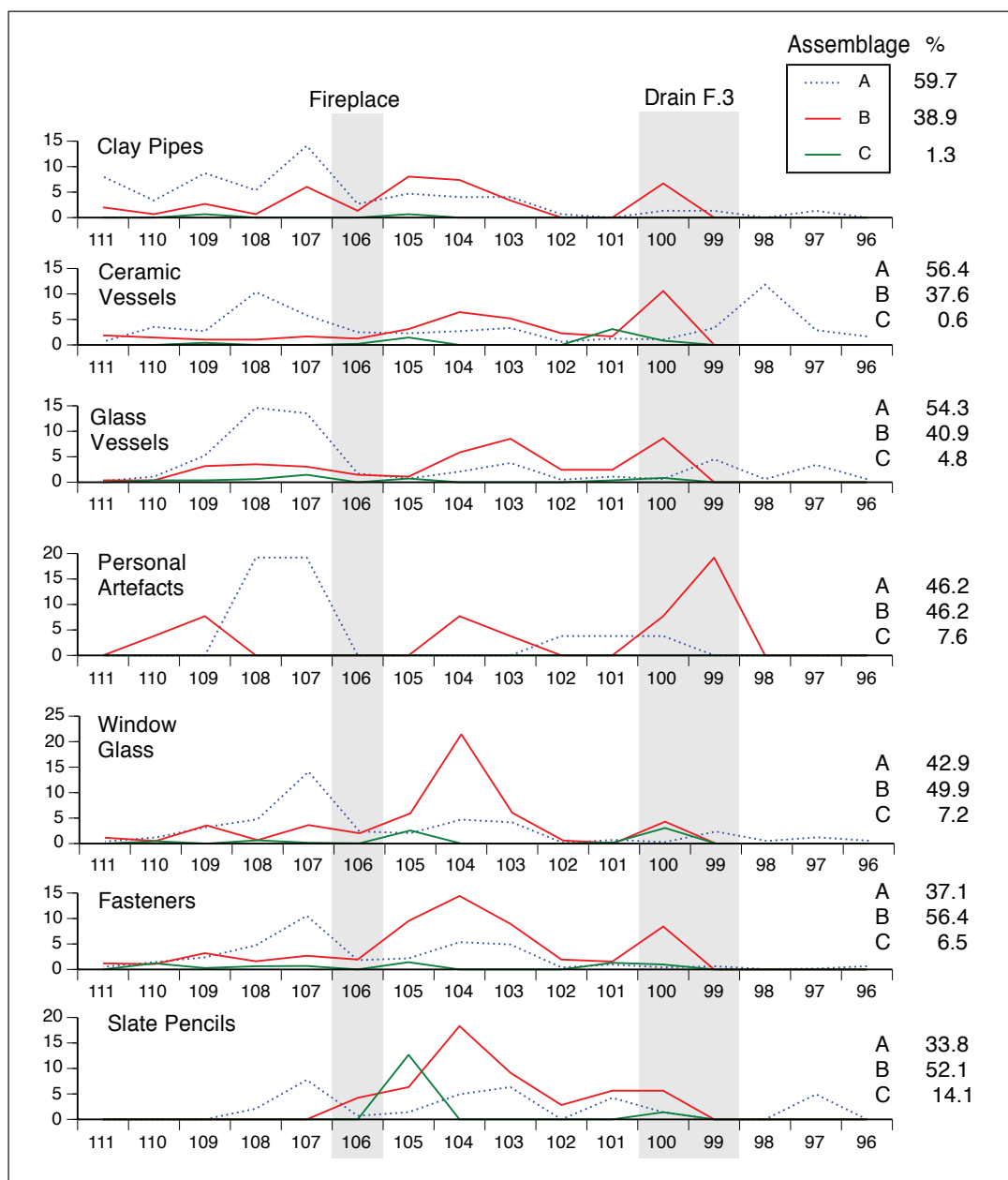


Figure 32. Stratigraphic distribution of selected artefact groups in Area 1 (%NISP), grouped by rows west

Table 4. *Excavated and Analytical Assemblages*

Analytical Assemblage	Excavated Assemblage	Area	Layer	Descriptors
1	A	1	1	topsoil; above pebble paving
1	B	1	2	pebble paving; fills around chimney, fireplace contents; upper fill of F.3
1	C	1	3	surface below paving; features below paving; lower fill F.3
–	D	1	5	buried soil with occupation
–	E	1	6	natural clay
2	F	2	1	topsoil
2	G	2	2a	surface of layer 2; fireplace fill
3	H	2	2b	lower layer 2
4	I	2	3	buried soil with occupation
5	J	other	1	testpit below spoil heap

	A	B	C	I
Vessel 1	4	1		
Vessel 2	6	2		
Vessel 3	3	5		
Vessel 4	9	1	1	
Vessel 5	2	3	1	1
Vessel 6	8	11	3	1

Figure 33. Ceramic sherds that join or match between excavated assemblages. Number indicate the number of matched sherds in each assemblage; dots and lines indicate joins.

The two lower deposits in Area 2 (H, I) were stratigraphically discrete and represent distinctly different activities, so were treated as separate units for analysis (Assemblages 3, 4). As Figure 33 indicates, two ceramic sherds from Assemblage 4 (I) match with vessels identified in Assemblage 1. Given the spatial separation of the excavation units, this cannot be due to stratigraphic mixing between the deposits, hence we did not combine them for analytical purposes. If the Assemblage 4 sherds really do derive from vessels that occur in Assemblage 1, this must be due to some other process, and alternative explanations for this are considered in section 4.8.

4.2 Fasteners

Fasteners are items such as nails, spikes and screws, and provide some of the most direct evidence of structures that formerly existed in archaeological contexts. With 1814

fragments, fasteners form the largest single component of the artefact assemblage excavated from Hohi (Table 5). They were sorted and catalogued according to material and form, following Middleton (2005b) and Clunie (n.d.). The artefacts were initially grouped according to shaft cross-section and portion present (complete, head, shaft, point), after which identifiable characteristics such as head form, point shape and shaft taper were recorded, and dimensions recorded for those sufficiently complete for measurement. Where possible evidence of manufacture was noted, as were indications of use, such as clenching and bends. With a high level of rust and accretion on many of the artefacts, attribution to type was difficult. Fasteners with a shaft width greater than 10 mm were classed as spikes, and those narrower than this as nails, with some of the latter further identifiable as brads, cleats or tacks on the basis of specific shape or form characteristics. Given the overall condition of the assemblage, some of these more distinctive functional types may be proportionally over-represented in the assemblages. MN was calculated from complete items and diagnostic elements present within each individual class (spike, nail, brad etc.) and type. The latter was determined by shaft cross-section, as the most identifiable characteristic of overall form, and diagnostic elements were limited to *either* the head or the point of the fastener. Shaft fragments were not included in the final MN counts, although they outnumbered head and/or points present in all assemblage, and thus the resulting total MN of 538 is likely to be a conservative estimate of the overall number of fasteners found. For this artefact class there is no difference between the sum of MN in analytical assemblages and the total assemblage count.

Table 5. *Weight, NISP and MN of fasteners*

Assemblage	Weight (g)	NISP	MN
1	11058.61	1755	516
2	317.53	24	14
3	206.63	26	6
4	91.59	9	2
Total	11674.36	1814	538

4.2.1 Assemblage 1

All but two of the fastener fragments in Assemblage 1 were made of iron, with 48 of these identified as wrought nails, and three tentatively classified as cut (Table 6). This comprises 2.7% and 0.1% of the overall NISP respectively, with the remaining 97.2% unable to be identified to manufacture type. The predominance of square sectioned nails within the assemblage (80%), however, suggests that most of the fasteners found at Hohi were hand wrought, with only a small proportion being of cut manufacture.

Table 6. *Assemblage 1 – Manufacture methods of fasteners (NISP)*

Manufacture/Form	Copper Alloy	Iron	Total
wrought	–	48	48
cut	–	3	3
unidentified square c/s	2	1362	1364
unidentified rectangular c/s	–	137	137
unidentified c/s	–	203	203
Total	2	1753	1755

Copper Alloy

The two copper alloy fasteners (one complete, one partial head/shaft) found in Assemblage 1 were identified as square sectioned, square pointed, flathead nails, one of which had been bent. Both fragments were tapered on all four sides of the shaft and are similar to forms found at Te Puna (Middleton 2005a:122; Wells 2000) [Figure 34].



Figure 34. Copper Alloy nails from Assemblage 1

Iron

Only a small proportion of the fasteners from Assemblage 1 could be identified to known types (Table 7). Twelve spikes (Figure 35) were found (2% of total MN), most of them over 100 mm in length and 10 mm in width. Head forms were difficult to distinguish, excepting two rosehead spikes, one with a chisel point and one with a square point, and a flathead with the point missing. Another four chisel points were identified and all but one of the spikes present had a square cross section.

Most of the nails appear to have been standard forms (e.g. Figure 36 a–c) ranging from ca. 20 mm to ca. 136 mm in length. Other nail types present included brads (Figure 36d), recognisable by their offset head; clouts (Figure 36e), identified as shorter, ‘with a flat head and sharp point’ (Middleton 2005b); and tacks (Figure 36f), here used to refer to even smaller fasteners, similar to those used in horseshoes and leather working. Again, these types only comprised a very small proportion of the overall fastener assemblage (2% of the MN). Only three clouts, five tacks and three brads were identified. Another four nail heads were tentatively classed as offset, but are not included as brads since the condition of the items precluded definitive identification. Two of the five tacks were also bent.

Table 7. *Assemblage 1 – Fastener types by shaft cross section (MN)*

Form	Square c/s	Rectangular c/s	Unidentified c/s	Total
spike	11	1	–	12
clout	1	–	2	3
brad	3	–	–	3
tack	4	1	–	5
unidentified	409	40	44	493
Total	428	42	46	516

Of the unidentified nail fragments, 64% were unable to be identified to head form, 9% to shaft cross section, 53% to taper and 82% were either of unrecognisable point shape or had no point present. Only seven had no identifiable characteristics at all, other than their categorisation as nails.

Head forms present included flathead and rosehead nails (Table 8), in relatively even proportions, in addition to the offset brads discussed above. Square points, chisel points, u-shaped points and v-shaped points were all identified, with square points and v-shaped points the most common for square sectioned nails and chisel points the most predominant amongst the rectangular sectioned fasteners. Most of the recognisable shafts had a four sided taper, although over one hundred and fifty square and rectangular sectioned shafts had only a two sided taper. Fifty shafts were seen to have no taper at all, although there are a number of factors which could account for this, including the condition of the shaft fragment and portion present. Simi-



Figure 35. Iron spikes from Assemblage 1

larly, it should be noted that the u-shaped points identified may be blunted points originally v-shaped or square in form.

Three shaft fragments also displayed burrs on two sides of the shank, indicating that they were cut nails (Figure 36 g–h).

Point and head forms, when considered together, can correlate to specific types or uses of nail. Rosehead nails with sharp (v-shaped) points, for example, are otherwise known

as 'roresharp' nails and were commonly used on harder timbers and 'coarser work' (Middleton 2005b). Rosehead nails with flat (chisel) points ('roseflat') were more likely to be used for soft woods, while those with square shafts and points (sometimes known as 'roseclench' nails) functioned as fasteners 'sheathing boats... crates and boxes' (Clunie n.d.; Middleton 2005b:57). Table 9 shows those nails from Assemblage 1 for which both head and point types were identifiable. Surprisingly, given the numbers in Table 8, only seventeen items fit within these criteria and cannot, therefore, be considered an accurate repre-

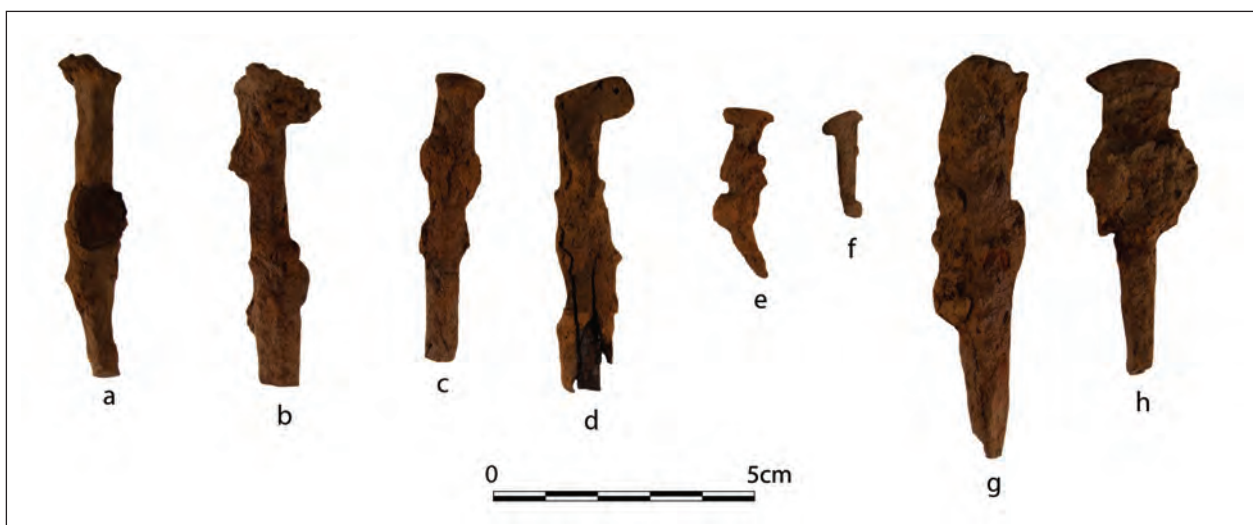


Figure 36. Selected nails from Assemblage 1

Table 8. *Assemblage 1 – Head, point and taper forms of unidentified nails (MNE*)*

	Square c/s	Rectangular c/s	Unidentified c/s	Total
Head Type				
Rosehead	69	12	3	84
Flathead	80	7	5	92
Unidentified	260	21	36	315
Total	409	40	44	493
Point Type				
Square	78	3	5	86
Chisel	35	17	1	53
U-shaped	19	–	–	19
V-shaped	63	–	7	70
Unidentified	96	5	11	112
Total	291	25	24	340
Taper				
Four sided	290	3	5	298
Two sided	104	57	1	162
None	47	3	–	50
Unidentified	411	40	118	569
Total	852	103	124	1079

* Minimum Number of Elements (i.e. MN heads, MN points, MN shafts); does not correspond to total MN fasteners

Table 9. *Assemblage 1 – Nails with identifiable head and point forms (MN)*

Shaft x-section	Head form	Point shape	Type names	Total
rectangular	flathead	chisel point		1
rectangular	rosehead	chisel point	roseflat	1
rectangular	rosehead	square point		1
square	flathead	square point		4
square	rosehead	square point	roseclench	4
square	rosehead	v-shaped point	rosesharp	3
unidentified	flathead	square point		1
unidentified	flathead	v-shaped point		2
Total				17

sensation of overall form within Assemblage 1. However, the head and point types identified, even when considered independently of each other, would suggest a narrow range of nail forms were present in this assemblage, most of which correlate to uses in hard and soft timbers, with only small numbers for other uses such as leather and iron work (clouts), horseshoes (tacks) and floorboards (brads).

Measurements were only taken from complete nails, which averaged 63mm in length and 8.2mm in width (shaft), although the accuracy of these measurements is compromised by the degree of accretion and rust present. The five

tacks identified all measured less than 20mm in overall length and less than 4mm in width. The three clouts were slightly larger, with an average length of 31mm, although width was unable to be determined due to accretion.

Use

Only 9% of Assemblage 1 displayed indications of use beyond those derived from form. The majority (72%) of these were identified as 'bent', with a much smaller proportion (26%) classed as 'clenched' (Table 10). Another two nails found had also been bent out of shape, one into an almost complete loop and the other into a u-bend or hook shape (Figure 37).

The terms bent and clenched here differentiate between those fasteners with a slight to medium bend in the shaft, usually resulting from the process of removal from timbers (Petchey, pers. com. May 2012) and those bent, or 'clenched' at a much harder angle, as a consequence of being hammered over during use (Figure 38) (Clunie n.d.; Middleton 2005b:58). Following on from the discussion of form in the previous section, it is of note that only three of the clenched nails recovered had square points and none of the nails fitting the criteria for the 'roseclench' form had been used in this way.

Table 10. *Assemblage 1 – Evidence of use on fasteners (MNE)*

Fastener Type	Bent	Clenched	Other	Total
brad	1	–	–	1
tack	–	1	–	1
spike	1	–	–	1
nail – square c/s	89	32	2	123
nail – rectangular c/s	7	1	–	8
nail – unidentified c/s	12	5	–	17
Total	110	39	2	151



Figure 37. Nails with loop and u-bends



Figure 38. Bent and clenched nails from Assemblage 1

4.2.2 Assemblage 2

Twenty four fastener fragments were found within Assemblage 2, giving an MN of 15 items (Table 11). One of these was copper alloy (Figure 39c), with the remainder made from iron. Only one of these was identified as wrought, although all but three unidentified items had square cross-sections. Two spikes were represented, square sectioned with chisel points, both of which had been clenched (Figure 39a-b).

Of the twelve iron nails present in Assemblage 2, a single flathead example was identifiable and only two points, both square. One nail had been clenched and another bent. No other characteristics of form or use were noted and none of the items found were complete enough to provide accurate measurements.

Table 11. *Assemblage 2 – Fastener Types, head forms and point shapes (MN)*

Material/Type	Head form	Point Shape	Total
Iron			
spike	–	chisel	2
nail	flathead	–	1
nail	–	square	2
nail	unidentified	unidentified	9
Copper Alloy			
nail	flathead	square	1
Total			15



Figure 39. Selected fasteners from Assemblage 2

The single copper alloy item found was in the form of a flathead nail with a square point, square cross section and maximum overall length of 40 mm.

4.2.3 Assemblage 3

A total of twenty six fragments were found in Assemblage 3, all made of iron, although only 6 individual items could be identified. Two of these were classified as spikes, both with square cross-sections, although no other characteristics of form could be identified. Similarly, none of the nails within this assemblage could be distinguished by head type, point type, or manufacture, but twelve of the twenty four nail fragments displayed square cross-sections.

Two fasteners, one spike and one nail, were bent. No clenched nails were found and none of the artefacts were complete enough to provide measurements.

4.2.4 Assemblage 4

Assemblage 4 contained the smallest number of fasteners, with only nine fragments representing two individual items recovered. All of these were made of iron, but manufacture was unidentifiable. No characteristics of form or use were recognisable, beyond square cross sections.

4.2.5 Discussion

The vast majority of the fasteners found at Hohi are of a size and form commonly associated with the construction of buildings. This, in combination with the overwhelming concentration of material in Assemblage 1 reflects the presence of wooden buildings in Area 1 and their apparent absence in Area 2.

Analysis of the distribution of fasteners (NISP per m²) indicates considerable spatial variation across Area 1 (Figure 40). There is a marked concentration of material immediately east of the fireplace along a wall alignment shared by structures 1 and 2. Most of these were found in the pebbles and clay that accumulated along the outside of this wall from early in its life, so probably derive from the decay and demolition of the first structure. A less dense concentration in squares N102/W100–101 is focused around a corner of structure 1, while another in N98–99/W103–104 which follows the east wall of structure 2. There are also concentrations in the drains north of the fireplace, at the north east corner of structure 1 and beyond its east wall.

The accumulation of nails in these features suggests that they were discarded on the ground surface, either during demolition or gradual decay of the buildings. The general scatter of items within the footprints of both structures, compared to their much lower incidence east of the F.3 drain is consistent with this interpretation.

Area 2, on the other hand, contained such a low number of fasteners that it is most unlikely that a building constructed in European style had been constructed there. It is possible that some of the items found in this area may have washed down slope from the upper terrace.

Only a small proportion of the fastener assemblages, from either area, show evidence of wear from use. The very small number of bent nails is somewhat surprising, given that the first school building was demolished in 1824 (see 2.4.2 above), but may reflect the poor condition of the timbers which would have made it easier to pull nails without bending them. It may also indicate that the second structure in Area 1 was left to decay after abandonment of the mission.

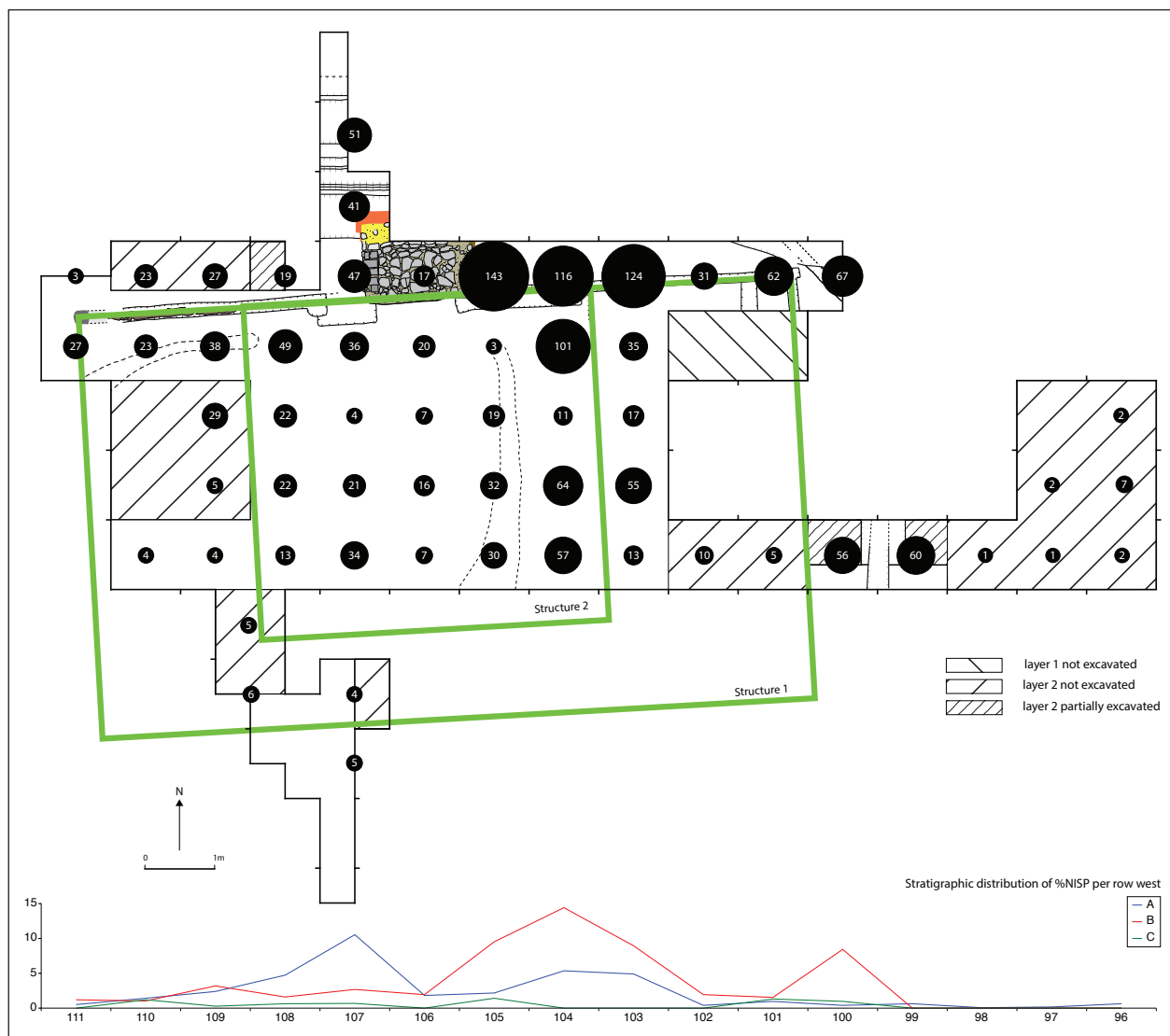


Figure 40. Distribution of fasteners in Area 1. Circles on the plan represent NISP per m²; the graph shows %NISP by stratigraphic assemblage

While the overall condition of the assemblage limited observations about methods of manufacture, the Hohi assemblage nonetheless adds to our understanding of the chronological dimensions of nail use in New Zealand. The majority of the items that did provide evidence of manufacture were wrought nails, and it seems likely that the vast majority of those used at the site were made in this way. Black smith shops were operated by three of the residents at the site, Walter Hall, William Hall and Thomas Foster (see Table 2), and at least one visitor, and there is at least one direct reference to the manufacture of nails (McLennan & McLennan 2012: 67). Perhaps more interesting is the presence of a small number of cut nails. These first came into production at the end of the eighteenth century, but CMS records indicate that they were not imported into New Zealand via the missionary network until the early 1840s (Middleton 2005b: 57). The presence of a small number of these at Hohi, which was abandoned by 1832, indicates that nails of this type did arrive here earlier.

The Hohi assemblage can be compared to those from other mission sites in the Bay of Islands. At Te Puna, where building work began in 1828 and maintenance continued until the 1870s, wrought nails predominated, along with small numbers of both cut and wire nails (Middleton 2005b). It is not surprising that the latter were absent from Hohi, as they were not imported into New Zealand until 1842 (*ibid.*: 57) or Australia until 1853 (Varman 1987: 107). Nails recovered from building contexts dating to the 1860s at the Kerikeri Mission House and Stone Store show that wrought and cut nails were still in use at that time (Best 1995, 2003). Currently available information indicates that wire nails were first used in New Zealand during construction of the printery at Pompallier House in 1842 (Middleton 2005b), but did not become common in either Australia or New Zealand until the 1870s (*ibid.*; Varman 1987).

4.3 Window Glass

Window glass can also provide direct evidence of former structures. Hohi yielded 1061 fragments of this material, weighing over half a kilogram. These were categorised by colour. The shards in each sample bag were examined for any major differences in glass thickness, and in the small number of cases where this occurred, the sample was subdivided accordingly, then up to five shards in each group were measured to determine average thickness. The presence of any shaping on the edge of the shard was also noted, as was evidence for method of manufacture (see below).

4.3.1 Assemblage 1

Almost all of the window glass was from Assemblage 1 (Table 12). Three colours were identified; aqua blue, aqua green and light aqua green, with the lighter green shade the most common. Both shades of green had more or less the same average thickness, making it clear that the colour difference was not due to glass thickness. The blue glass was noticeably thicker on average, although this differ-

Table 12. *Window Glass Assemblages: weight, NISP and average thickness by colour*

Assemblage	Colour	Weight (g)	NISP	Average Thickness (mm)	Std. Dev.
1	light aqua green	257.52	567	1.33	0.18
	aqua green	244.95	413	1.37	0.17
	aqua blue	46.61	60	1.52	0.33
	total	549.08	1040	1.37	0.21
2	light aqua green	4.39	10	1.39	0.16
	aqua green	0.30	2	1.31	0.38
	total	4.69	12	1.38	0.19
3	aqua green	4.25	5	1.51	0.16
	aqua blue	0.33	1	1.62	–
	total	4.58	6	1.53	0.15
4	aqua green	1.74	2	1.22	0.04
	aqua blue	0.27	1	1.22	–
	total	2.01	3	1.22	0.03
Total Site	light aqua green	261.91	577	1.33	0.18
	aqua green	251.24	422	1.38	0.18
	aqua blue	47.21	62	1.51	0.32
	total	560.36	1061	1.37	0.20

ence was not statistically significant. Overall the window glass thickness in this assemblage averaged 1.37 mm, with most of the shards ranging from 0.95mm to 1.87mm in thickness. Eight fragments, all but one aqua blue, were over 2mm thick. Seventeen had rounded-off edges which appear to mark the edge of a pane (Figure 41), a characteristic that is not mentioned in most accounts of archaeological window glass.

4.3.2 Other Assemblages

The other three assemblages contained only very small amounts of window glass, all of which were similar to those from Assemblage 1. The only noticeable differences were in average thickness with Assemblage 3 slightly greater and Assemblage 4 slightly less. These differences

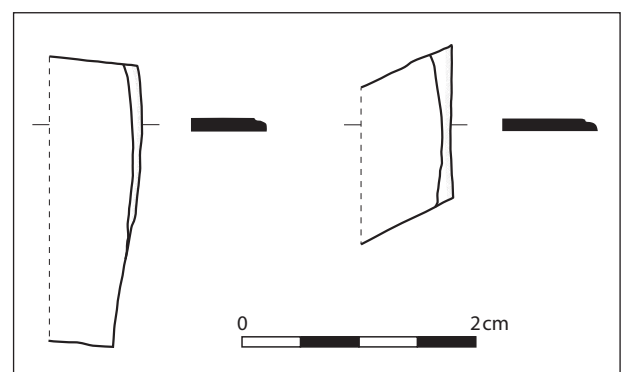


Figure 41. Shaped edges of window glass

are not statistically significant and are probably due to the very small sample sizes.

4.3.3 Methods of Manufacture

At the time that Hohi was settled there were two main methods of flat glass manufacture: crown and broad (or cylinder). Crown glass production involved a 'bubble' of glass being blown and then flattened and rotated until it formed a large disc (Sharfenberger 2004: 63). This method resulted in a large amount of waste as it was not possible to cut the whole disc into straight sided panes, but it did create high quality glass (Charleston 1984: 38–9). The rotating action of the manufacture process leaves its traces on the finished product in the form of 'worm' shaped bubbles and/or curved stress marks (Sharfenberger 2004: 64). The alternative method (broad glass) involved the creation of a hollow glass cylinder which was subsequently cut and flattened, and which left a large rectangular sheet (*ibid.*). This method produced less waste and also glass of

a more uniform thickness than crown glass. Evidence of this method of production includes 'rice' shaped bubbles (Weiland 2009: 29).

Due to the fragmented nature of the Hohi window glass assemblage, it was often not possible to discern the method of manufacture. In fact, the manufacture method was only able to be clearly identified on three shards, one of each colour. All three exhibited the characteristic 'rice' shaped bubbles of broad glass. It is quite possible that most, if not all, the glass from the site was produced using this method, as by the early 19th Century crown glass was rapidly losing popularity (Weiland 2009: 29).

4.3.4 Discussion

Almost all of the window glass was found in Area 1 and must be remnants of windows from either or both the school and later structure there. There is a very obvious concentration of fragments in and adjacent to square

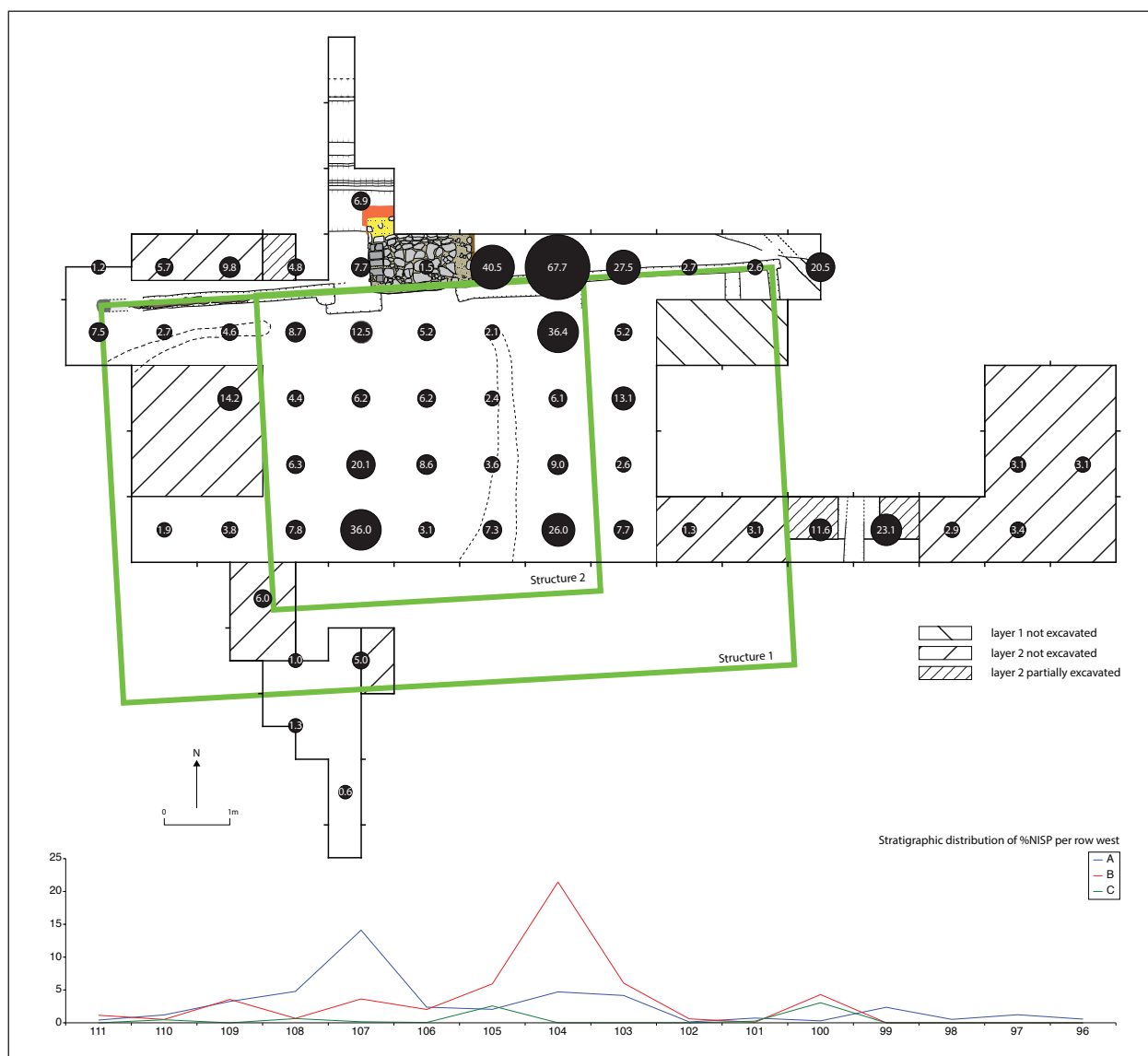


Figure 42. Distribution of window glass in Area 1. Circles on the plan represent NISP per m²; the graph shows % NISP by stratigraphic assemblage

N102/W104 (Figure 42), in the same accumulation of pebbles and clay from which the major concentration of fasteners derived. This makes it likely that much of this glass was from the first structure. Whether or not this was the case, we can be certain that there was a window here. The second major concentration in N98–99/W107 was mostly in the topsoil, and within the footprint of both buildings. This glass must have accumulated during demolition of the first structure, or decay of the second. The first of these is implied by the concentrations, even if relatively slight, in the drains around the eastern perimeter of structure 1 (N98/W99; N102/W100), as some time must have elapsed for accumulation by rain water to take place.

Condition of the glass is strongly supportive of this interpretation. The entire assemblage was highly fragmented and exhibited considerable weathering and wear. This included microchipping and rounding on broken edges, as would be expected of fragments that were scuffed around in the pebble gravel or lay on the surface for some time before being buried. Breakage of windows during use of the school is not unlikely, especially given the large numbers of children, small size of the building and thinness of the glass. However, glass shards are perhaps more likely to have been cleared up after such accidents, than they would have been after ransacking of the school in 1824 and its subsequent demolition.

Thickness of the Hohi window glass is a comparable to that from the nearby Te Puna mission, most of which ranged from 0.86mm to 1.5 mm (Middleton 2008:147). It is generally accepted that window glass got gradually thicker as the 19th century progressed and window panes grew in size (Weiland 2009:29), so it is interesting that the slightly later Te Puna glass appears to be marginally thinner. The

difference is so small, however, that it is possibly down to different measurement specifications or methods.

4.4 Other Structural Artefacts

4.4.1 Bricks

Most of the complete bricks excavated from the Hohi site were found in association with the fireplace in Area 1 and were left *in situ* (Figure 43). However, fragments were also found scattered throughout both areas of the site, and samples of the various forms represented were recovered for analysis (Table 13). These items were heavily fragmented, limiting the analysis that could be undertaken, which drew on the discussion presented in Stuart (2005) and the comparative assemblage found at Te Puna (Middleton 2005c). Items were initially sorted by colour, which consisted mainly of red, black, orange and pink, although variability of colour in individual artefacts and difficulty distinguishing between the latter two colour groups led to the classification of some fragments as orange/pink. Fabric was recorded as coarse or fine, with note made of any inclusions or other variables. The high degree of fragmentation made it difficult to identify forms and, consequently, measurements were only taken of those bricks with appropriate diagnostic portions present.

Table 13. *Brick Assemblages*

Assemblage	Weight (g)	NISP	MN
1	3934.18	46	7
2	1323.35	4	3
Total	5257.53	50	10



Figure 43. Four bricks in situ on the west edge of the fireplace, showing colour variation

Assemblage 1

A minimum number of seven bricks were recovered from Area 1, representing four main colour/fabric types. These ranged from poorly mixed and coarse-grained pink and orange/pink bricks with inclusions to finer grained red and orange examples (Table 14). The fabric of the pink and orange/pink bricks is similar enough to suggest that the colour difference observed between them may have resulted from the firing process rather than typological differences in material or manufacture, as has been noted elsewhere (Stuart 2005). Similarly, the difference between the medium and coarse-grained red bricks was negligible enough to just be considered variation within a single 'red brick' type. The *in situ* bricks from the fireplace exhibited similar range of colours.

Complete bricks from the fireplace were all rectangular with somewhat variable dimensions, approximating 200 × 100 × 60 mm. There was only one complete specimen among the items retrieved for analysis. This was a small

brick with trapezoid cross section made from fine grained orange clay (Figure 44). The shape of this specimen indicates use in an arch, presumably over the fireplace. A further five fragments were from standard rectangular bricks, but the remaining pieces were too small to identify form. No frogs were present, but two of the rectangular bricks (one red, one pink) had slight depressions on one surface, similar to the examples found at Te Puna (Middleton 2005c:99). The third rectangular fragment from Area 1 was made from the same fabric as the trapezoid brick and this, along with the rectangular black brick from Area 2, was thinner than the rest (46–48 mm compared with 60–63 mm).

Assemblage 2

Only four fragments were recovered from Assemblage 2. Three of these were from bricks of the coarse-grained orange/pink type that was most common in Assemblage 1. There was also part of a fine-grained brick that was black throughout, presumably from over-firing.

Table 14. *Brick Colour and Fabric Types*

Body type	Colour	Fabric	Assemblage 1		Assemblage 2	
			NISP	MN	NISP	MN
1	pink	coarse-grained with pink, red, white inclusions	24	1	2	1
	orange/pink	coarse-grained with pink, red, white inclusions	8	2	1	1
2	orange	fine to medium grained	7	2	1	1
3	red	medium grained with some darker inclusions	6	1	–	–
	red	coarse grained with stone and clay inclusions	1	1	–	–
4	black	fine grained, some inclusions	–	–	1	1
Total			46	7	4	3



Figure 44. Brick with trapezoid cross section

Discussion

All the bricks at Hohi appear to have been hand-made, and there is good reason to suggest that the coarse-grained pink, orange/pink and red bricks may have been produced at Hohi. A red clay, comparable in colour to that of the coarse red bricks, was uncovered in the lower levels of excavation (see Figure 18), and it is known that bricks were manufactured there by Tully Matthews, a convict labourer turned brickmaker, who was there in 1814–16, and by others later (Carr 2004; McLennan & McLennan 2012: 11, 62). Bricks were also imported from Australia, and on at least one occasion acquired from the tryworks of a visiting whaleship (McLennan & McLennan 2012: 6). Either or both of these sources may account for the finer grained orange and black bricks recovered in the excavation.

4.4.3 Wood

Two items of structural timber, both from Area 1, were retrieved for identification, which was undertaken by Dr Rod Wallace, University of Auckland. A piece of timber recovered from the bedding trench (F.5) west of the fireplace in Area 1 was identified as kauri (*Agathis australis*). This demonstrates that the first generation of buildings at Hohi were not built entirely of kahikatea, as implied by the historical record (2.4 above). A second piece of timber, recovered from the lining of the upper drain (F.3a) in N98/W100, was identified as tanekaha (*Phyllocladus trichomanoides*).

4.5 Slate Pencils and Slates

Slate pencils and writing tablets provide the most compelling evidence that one of the former structures in Area 1 served as a school. Fragments of these two artefact forms were found exclusively in Assemblage 1, making up a total of ninety individual pencils and at least one tablet (Table 15). Pencils were sorted and analysed according to portion, condition (i.e. broken, recut), point shape, shaft tapering, and examined for markings and indications of wear. MN were calculated from points present and measurements taken of selected items. Fragments of writing slate identified were catalogued by portion and form, measured for thickness, and examined for presence of any markings. Corners were considered the best indication of minimum number, which was calculated accordingly. Information on the manufacture, use and history of slate writing tools was drawn predominantly from Davies (2005).

Table 15. *Slate Artefacts, Assemblage 1*

Artefact Type	Weight	NISP	MN
pencil	162.20	142	90
writing tablet	37.92	17	1
Total	200.12	159	91

4.5.1 Assemblage 1

Pencils

One hundred and forty two fragments of slate pencil were found within Assemblage 1, all of which were recorded as shaft (52; 36% of total NISP) or shaft/point (90; 64%). No unused pencils were identified, making it difficult to establish the original lengths of the items represented: the longest fragment found measured 87mm in length.

Form and Manufacture

Two different methods of manufacture are known to have been used in the creation of slate pencils during the nineteenth century. One involved ‘cutting and turning sticks of soft slate’ which were then forced through ‘a series of reducing tubes’ in order to form a cylindrical shape, leaving distinctive ‘parallel flat facets’ on the surface of the shaft as a result. Alternatively, it was also possible to manufacture the pencils by ‘pressing moistened slate powder until it was firm enough’ to form the correct shape (Davies 2005: 63–64). It is presumed that pencils made using the latter method would be softer and less angular in shape than the alternative. All of the pencil fragments found at Hohi displayed ‘flat facets’ on the shaft, indicating they were more likely to have been made using the reduction, rather than compression, method. Davies notes that a hand operated machine for manufacturing pencils using reduction was patented in 1811, followed quickly by a water powered version capable of larger product yields.

Nearly all of the pencils from Assemblage 1 appear to have been worn or recut, as the points and shafts are unevenly tapered and/or pointed, indicating that they were sharpened with a blade, probably more than once. Only one exception to this was identified, suggesting it may not have been used as much as the others, if at all (Figure 45a). Eleven pencils had also been cut or worn to a point at both ends of the shaft (Figure 45b–l).

Four different point shapes were identified in the assemblage (Table 16), although it must be noted that these are a description of form at the time of deposition, not an indication of original shapes or functions. U-shaped points (e.g. Figure 42m) were the most numerous (47%), and probably indicate use, which would have blunted sharper points into this shape. It is likely that the v-shaped (e.g. Figure 45n), chisel (e.g. Figure 45o) and square (e.g. Figure 45p) points were produced by recutting. Nine of the eleven double-ended pencils had a u-shaped point at both ends, while the remainder had one u-shaped and one v-shaped point. The presence of the sharper point suggests that this end of the pencil had been used less, or sharpened more recently, than the blunter u-pointed end. The eleven double ended pencils also had a shorter average length than the rest of the pencil assemblage.

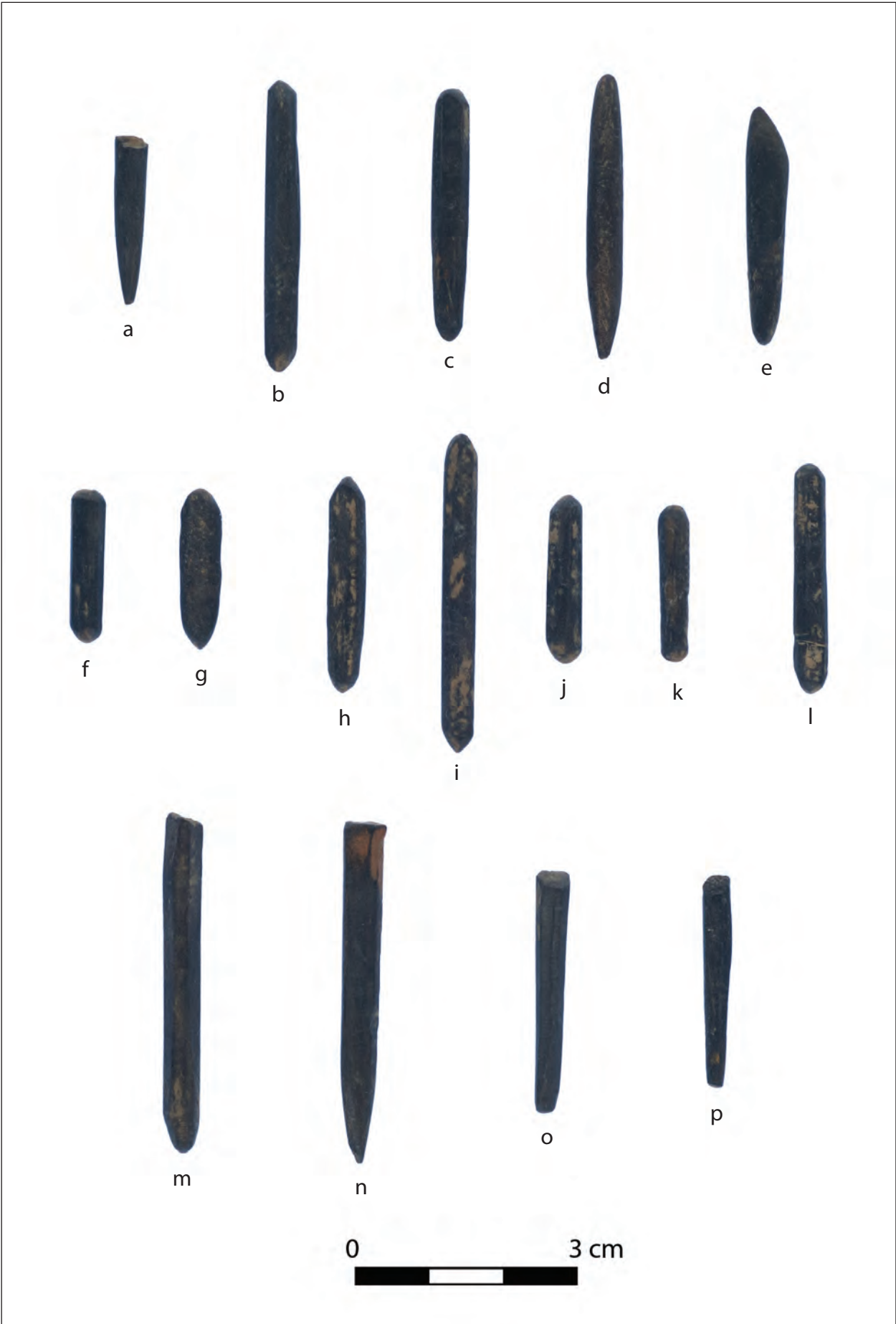


Figure 45. Selected slate pencils

Table 16. *Points forms identified in slate pencils*

Point Form	MN
u-shaped	43
v-shaped	28
double point	11
square	5
chisel	3
Total	90

Marks

Five pencils fragments, four points and one shaft, were found to have marks scratched into the surface of the shaft (Figure 46). Four of these comprised simple, geometric marks such as crossed lines or repeating v shapes, but the fifth displayed two notches carved into an edge of the shaft, relatively equidistant to each other. It is possible that these marks are the result of individuals distinguishing their own pencils from others by carving a recognisable mark into the surface.

Tiles

Seventeen fragments of writing slates (10.6% of the total slate assemblage) were found at Hohi, a number out of proportion with the quantity of slate pencils recovered. Most of these were body fragments, with only one corner and three edge pieces identified. The average thickness of the fragments was 2.02 mm, closer to the standard

measurements for writing (ca. 2.5 mm), rather than roofing, slates (Davies 2005). Three of the larger fragments, however, measured over 3mm in thickness, making them thicker (and presumably, sturdier) than the standard.

Eleven of the slate fragments found were also marked (Figure 47), ten of these with lines, most of them uneven. Three fragments also bore illegible markings that could, originally, have been writing. One of these was marked on both sides of the tile. No other information could be discerned.

4.5.2 Discussion

The 90 pencils recovered at Hohi is considerably more than we are aware of from any other site in New Zealand, and also greater than the numbers reported by Davies (2005: 65) for a range of sites in Victoria, Australia. This, and the restriction of these items to Area 1, provides compelling evidence that one of the structures in that area served as a school. All the pencils exhibited evidence of wear, some of it quite considerable, suggesting that they were either lost whilst in use or discarded as no longer viable. Two thirds of these items were from layers 2 and 3, indicating that derived from early in the use of Area 1, and their distribution (Figure 48) suggests that many may have fallen between the floorboards of the school. While the major concentration was immediately east of the fire-place, perhaps indicating discard outside of the building, 60 of the 90 items occur within the footprint of structure 1, making loss through cracks in the floor more likely. There is a noticeable lack of items beneath the western end of

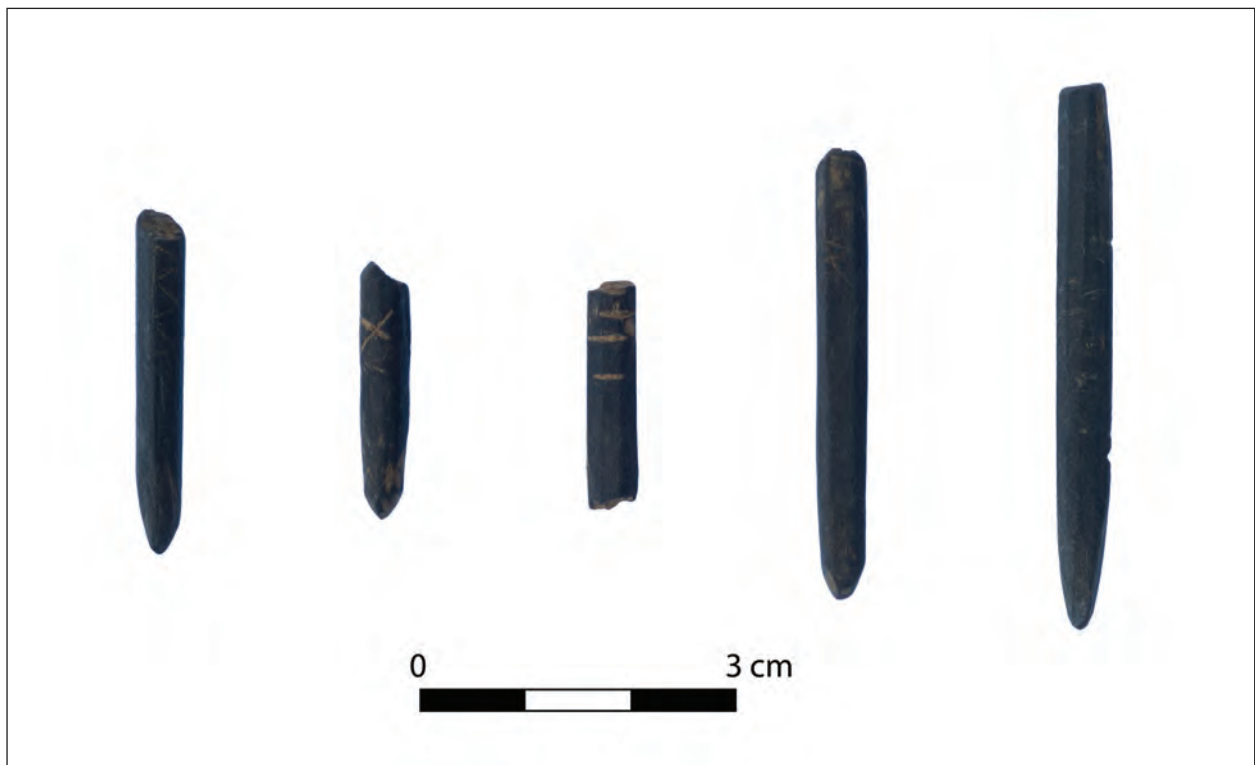


Figure 46. Slate pencils with marks



Figure 47. Slate tablet fragments with marks

this building. One potential explanation for this is that the area of raised flooring within the building ‘intended for the teachers and Eurorpean children’ (Elder 1932:222) was at this end of the building, and the second layer of flooring there prevented movement of items to the subfloor space.

4.6 Personal Items

Personal items found during the Hohi excavations cast some light upon the people who occupied the site. These included clothing fasteners such as buttons and a buckle, items of adornment and toys (Table 17). Almost all of these items were found in Area 1 under or around the school building.

4.6.1 Assemblage 1

Buttons

Five buttons were recovered during the excavations, all of which derived from Assemblage 1. One is bone and the other four are metal.

Bone

The bone button is of the sew-through variety and has four holes (Figure 49a). It has a diameter of around 17 mm which Lindbergh (1999) classes as medium sized. Buttons of this size were used on various articles of clothing such as shirts, trousers or pyjamas (ibid.:52).

Metal

All four of the metal buttons are copper alloy and, unlike the bone sew-through, all have shanks soldered onto the reverse, one of the most common manufacture methods of the late 18th and early 19th century (Cox 1996:54). Due to the varying states of preservation it is difficult to distinguish the shanks as being ‘Alpha,’ a late 18th century practice of soldering the ends of the wire loop to the button, or ‘Omega,’ referring to the method of bending the ends of the loop flat against the button to give more stability to the attachment (Birk 2004:72). One (Figure 49b) closely resembles a ‘bullet’ button, most commonly found on military uniforms from around 1812–1830 (Olsen 1963:552). Another (Figure 49c) is similar to this but instead of a rounded dome shape it is more conical, and the tip is missing. It is comparable with a ‘gaiter’ button, as illustrated by Lindbergh (1999:51), although these are described as usually having a solid dome (ibid.:52) and this one is hollow. Both these buttons are quite small, measuring around 12 mm across.

The other two are larger and more decorative, and both appear to have been gilded. The smaller of the two (Figure 49d) has very orange coloured gilt as a result of a high copper content, a characteristic of the gilt buttons from the first two decades of the 19th century (Marcel 1994:16). It also has stamped decoration on the front side with an animal in the centre, although the species is not clear (Figure 50). The other gilt button (Figure 49e) is larger and

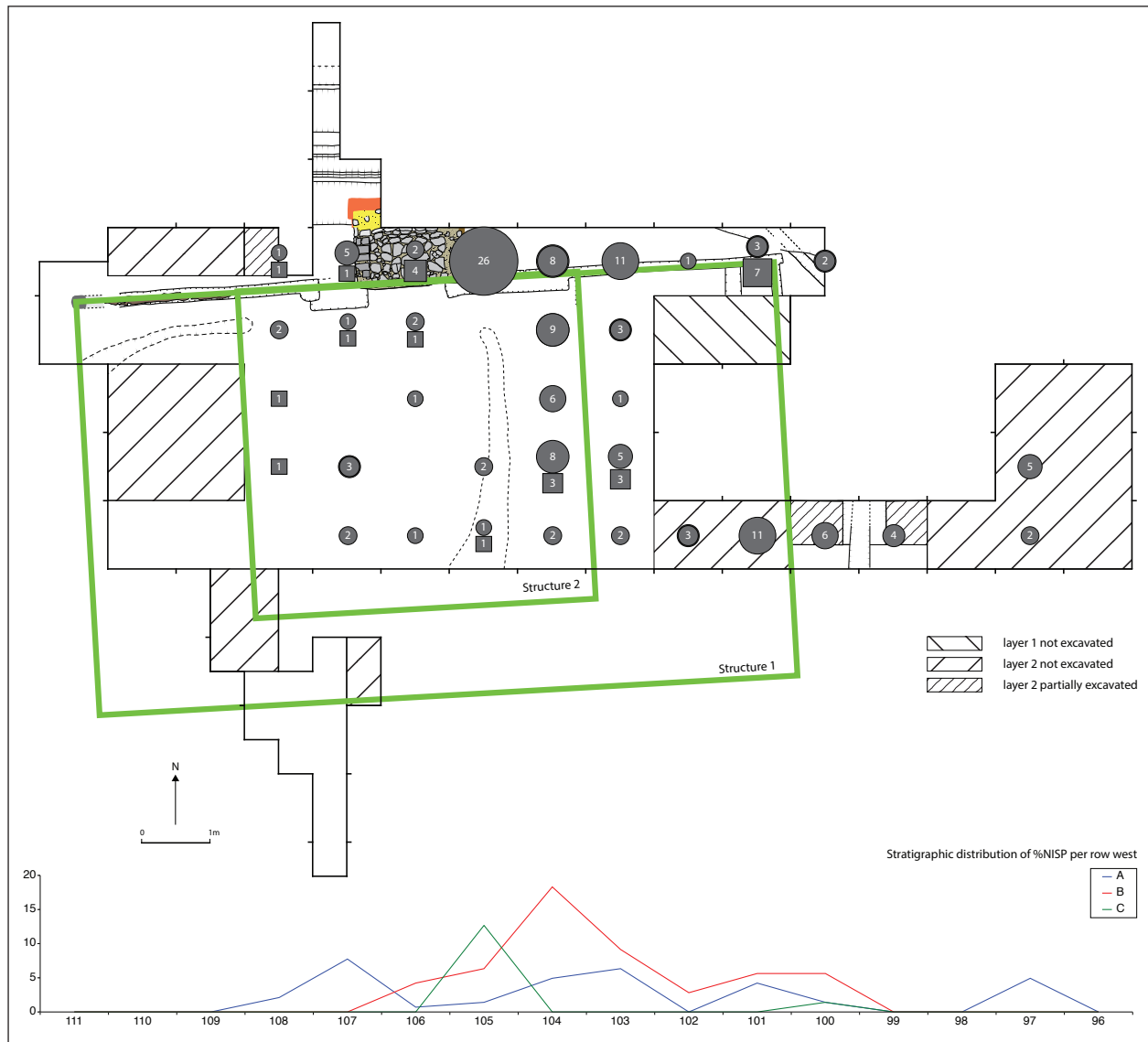


Figure 48. Distribution of slate pencils and tiles in area 1. Circles (pencils) and squares (tiles) on the plan represent NISP per m²; the graph shows %NISP by stratigraphic assemblage

Table 17. *Personal Items in Hohi Assemblages*

Assemblage	Artefact Class	Material	Weight (g)	NISP	MN
1	<i>Clothing Hardware</i>				
	Buttons	bone	1.10	1	1
		metal	8.81	5	4
	Buckle	copper alloy	14.81	1	1
	Belt fitting?	copper/iron	7.33	1	1
	<i>Adornment</i>				
	Bracelet	copper alloy	18.87	1	1
	Pendants	pounamu	27.98	2	2
	Beads	glass	10.59	15	15
	Decoration?	gold leaf	0.10	8	1
	Jewellery?	tortoise shell	1.85	2	1
	Total		91.44	36	27
2	<i>Adornment</i>				
	Bead	glass	0.60	1	1
Total Site			92.04	37	28

much yellower. Any decoration that may have been on the front has been lost with the gilt but on the reverse there is engraving which reads 'GURNEY & SONS / JERMYN ST / LONDON'. This specific business was unable to be identified but back marks were common on buttons from the early 19th century and can correspond to button manufacturers or clothing shops (Cameron 1985: 24).

Buckle

Included in this assemblage is a small buckle (Figure 51) that presumably once acted as a fastener on an item of clothing or strap. It appears to be made of a copper alloy with a black lacquer-like coating. The fastening mechanism consists of a hook on the reverse.

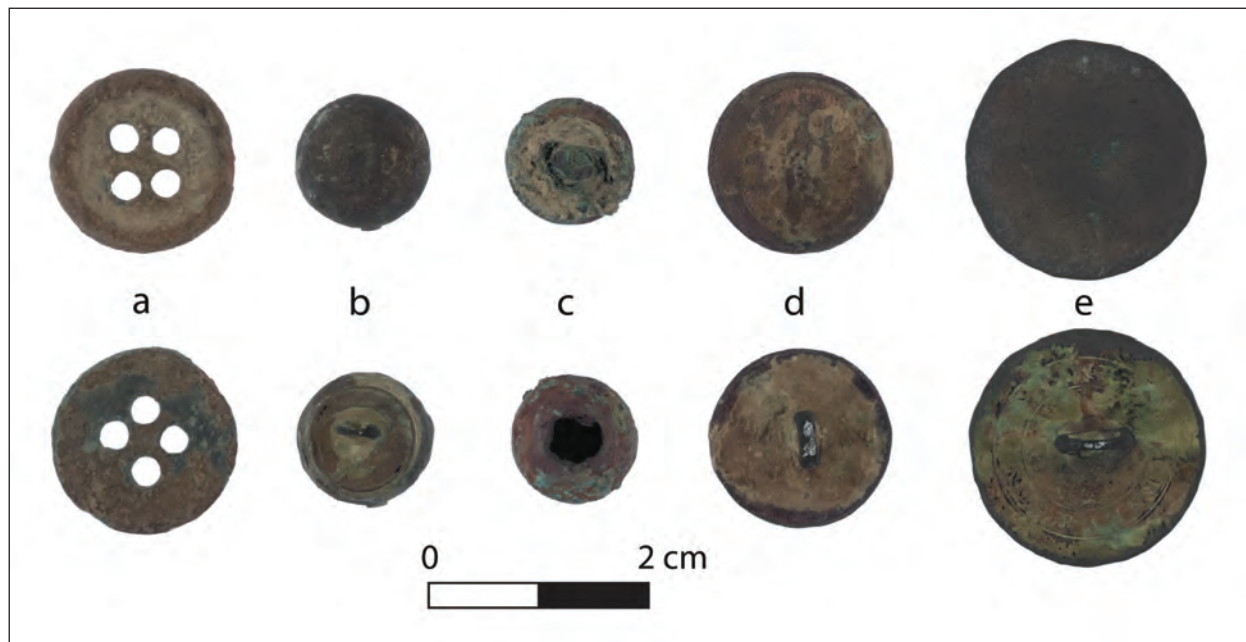


Figure 49. Buttons

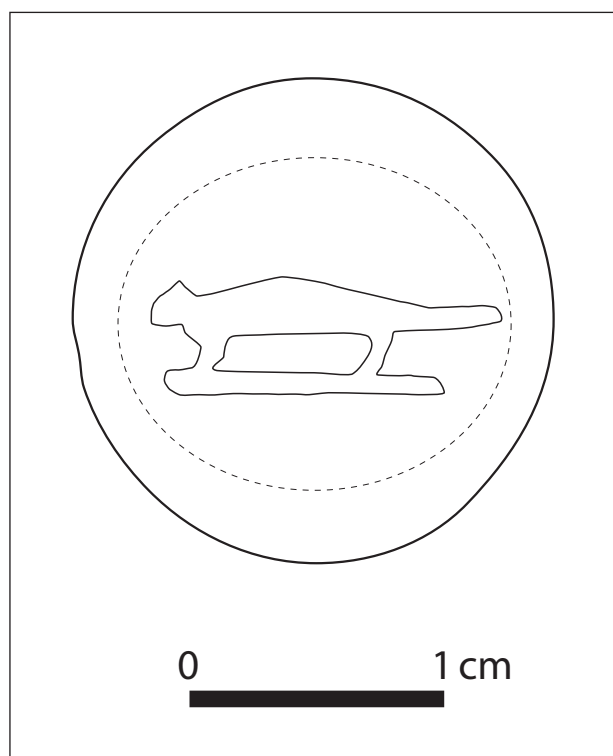


Figure 50. Detail of stamped decoration on gilded button



Figure 51. Buckle



Figure 52. Bracelet

Bracelet

A bracelet made from copper alloy (probably brass) was found in the pebble layer to the west of the fireplace in Area 1. It is composed of a 160 mm long single string of hollow metal beads measuring *ca.* $6.9 \times 7.3 \times 6.2$ mm each, linked by thin flat rings of metal (Figure 52). No clasp was identified. The bracelet is relatively plain, with no decoration or marks visible on the beads.

Pendants

Two *pounamu* (nephrite) pendants were recovered, both from beneath the schoolhouse. They are of the straight *kuru* form which were worn as ear ornaments (Orchiston 1972). Both have been drilled from two sides to form the perforation, indicating that they are unlikely to have been made with European tools. The complete specimen (Figure 53a) is 86.8 mm long, 10 mm wide and 8.5 mm thick, and closest to Law's (1980) type 1 which was particularly common in Northland. The second specimen (Figure 53b), which is broken at the perforation, is wider (12.6 mm) but of similar thickness (8.4 mm) and is probably of the same type.

Beads

Fifteen glass beads of various colours and sizes were found in Area 1 (Figure 54). Three shapes were identified: spherical, round (used here to describe those beads that are rounded with flattened ends) and ovoid (Table 18).



Figure 53. Pounamu pendants

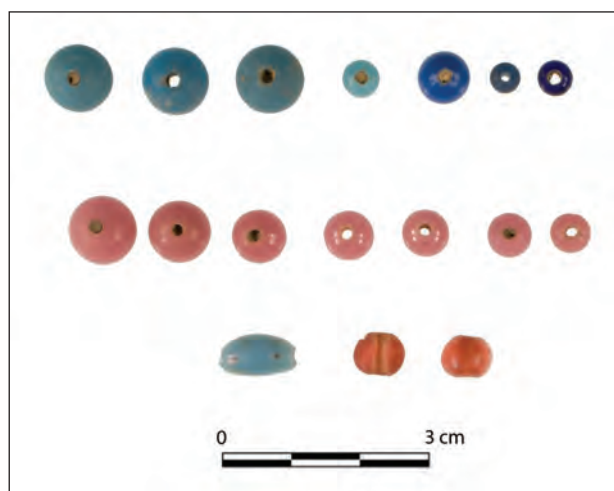


Figure 54. Glass beads

Table 18. Beads: shape and colour

Shape	Colour			
	Blue	Pink	Red	Total
Spherical	5	7	–	12
Round	2	–	1	3
Ovoid	1	–	–	1
Total	8	7	1	16

Manufacture

All of the Oihi beads appear to be wound. This process entails heating a rod of glass until it is soft and then winding it around a wire called a mandrel to give the central thread of the bead (Sprague 2000:208). These particular beads seem to have been produced by winding a very fine thread of glass multiple times around the mandrel to give

the bead shape and then smoothing over to finish. Wound beads were usually not intended to be sewn onto clothes or other fabric but instead strung leading them to often be referred to as necklace beads (ibid).

Colour

Blue was the most common bead colour, accounting for half of the assemblage. Sizes ranged from 4.41 mm to 9.72 mm across. Four shades were present: sky (the dominant shade), dark, royal and bright blue. Spherical was the most numerous shape, while one sky and one royal blue bead had flattened ends and wider threads so were classified as round. The only ovoid shaped bead in the assemblage was sky blue.

Pink was the next most common colour but only spherical beads of this colour were present. Various sizes were represented ranging from 5.72 mm to 9.70 mm across.

One round red bead was also found during the excavation. It measures 7.67 mm across.

Toys

Miniature Cannon

A small brass model of a carronade, a short-bore naval cannon, measuring just 50 mm in length (Figure 55a), was also found under the school house floor. It would presumably have once been mounted on a carriage, probably made of wood, which has not survived.

Clay Marble

A brown-bodied earthenware marble (Figure 55b) was found under the school house floor. This type of marble was produced from the mid-18th century until well into



Figure 55. Toys: a. brass model carronade; b. clay marble

the 20th in Europe and America (Gartley and Carskadden 1998: 49–50). Brown-bodied earthenware marbles were the cheapest and most readily available type of marble and thus were least valued by both manufacturers and children, who referred to them as ‘commies’ (ibid: 50). This particular marble was almost certainly hand-shaped, as the shaping process was not mechanised until 1859 (ibid: 54). There is also evidence for this on the marble itself, as it is not perfectly round and has a small indent which could be a finger-nail imprint. It is quite a large example, measuring 31 mm in diameter, and could have been used for games such as ‘five stones’ which was similar to jacks and incorporated one large marble and four sheep or other animal bones, generally taluses (ibid: 23).

Other

Decorative item – gold leaf

Eight fragments of gold leaf with copper backing were recovered from N100/104 near the centre of Area 1 (Figure 56). The pieces are very thin and extremely fragile, with the largest portion measuring 13.3mm in length and less than 0.5mm in thickness. Raised leaf decoration is visible on two fragments, bordered on one by raised lines which join to form a point, following the contours of the fragment. It seems likely that this is the end of a larger piece of decoration attached to another object, which may not have survived in the archaeological record. During the Georgian and Victorian periods gold leaf was used to decorate objects jewellery and clothing adornments, as well as furnishings such as picture frames, mirrors and furniture.

Decorative item – tortoise shell

Two very thin fragments found together in the topsoil in N94/W107 have been tentatively identified as tortoiseshell. They are fairly fragmented so it is not possible to tell their original form but tortoiseshell was used in jewellery and for decorating furniture and other items.

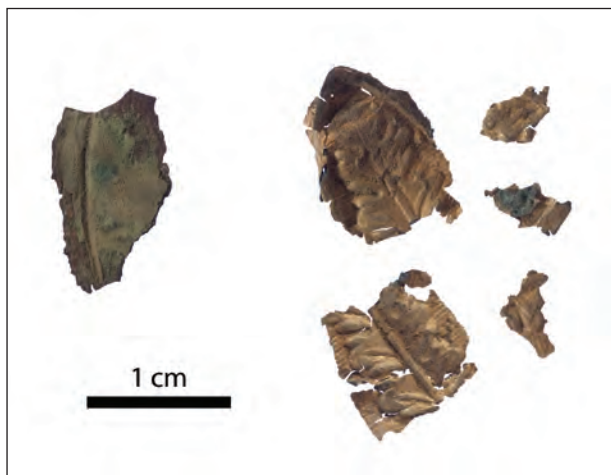


Figure 56. Gold leaf item, with copper backing material at left

Utilitarian item – copper alloy

A small horseshoe/semi-circular shaped copper alloy artefact with iron backing was found near the fireplace in Area 1, at the northern edge of the excavation. Three raised dots were visible on the copper in a triangular pattern, but the item could not be identified with any certainty. It may have been part of a boot or belt strap.

4.6.2 Other Assemblages

Bead

One bead was found in Area 2 and is included in Assemblage 2. It is bright blue and spherical in shape, measuring 7.58 mm across.

4.6.3 Discussion

This modest assemblage of personal items can give at least a small insight into the lives of the mission inhabitants, particularly its children. The small collection of buttons were all found within or just outside the footprint of the school building, with only one of each example, and individually rather than in groups (Figure 57). This would suggest that they fell off articles of clothing while they were being worn and either fell between the floor boards or were kicked under the building from the paths around the perimeter.

The bone button is very utilitarian and similar examples can be found in any number of sites from this period, both here and overseas (Birk 2004; Middleton 2008). The two domed buttons closely resemble military uniform fastenings but similar examples are not widely recorded from New Zealand sites. Only vague details can be given for the two flat metal buttons as well as the decoration on each were not able to be identified to manufacturer. All that can be said is that they were probably manufactured in the early 19th century, the copper coloured one before the yellower example.

Beads similar to those described above have been found in sites of a similar age to Hohi in New Zealand, but this is not a regular occurrence. Middleton (2005c:144) notes that three wound beads very similar to those from this site were found at Te Puna but struggles to list more than a couple of comparable examples from around the country. They are, however, regularly recorded in colonial sites in North America and Australia (eg. Birk 2004; Birmingham 1992). In these contexts they are assumed to be related to trade, especially with the native populations. At Hohi we can be quite certain of their origin and context. The fact that most were found in the vicinity of the school suggests that in this context they were used as rewards for the children; perhaps they were some of the trade items that Kendall requested from the CMS (see section 2.4.2).

At Hohi they were found in two clusters; in the F3 drain, and on or adjacent to the pebble path on the east side of

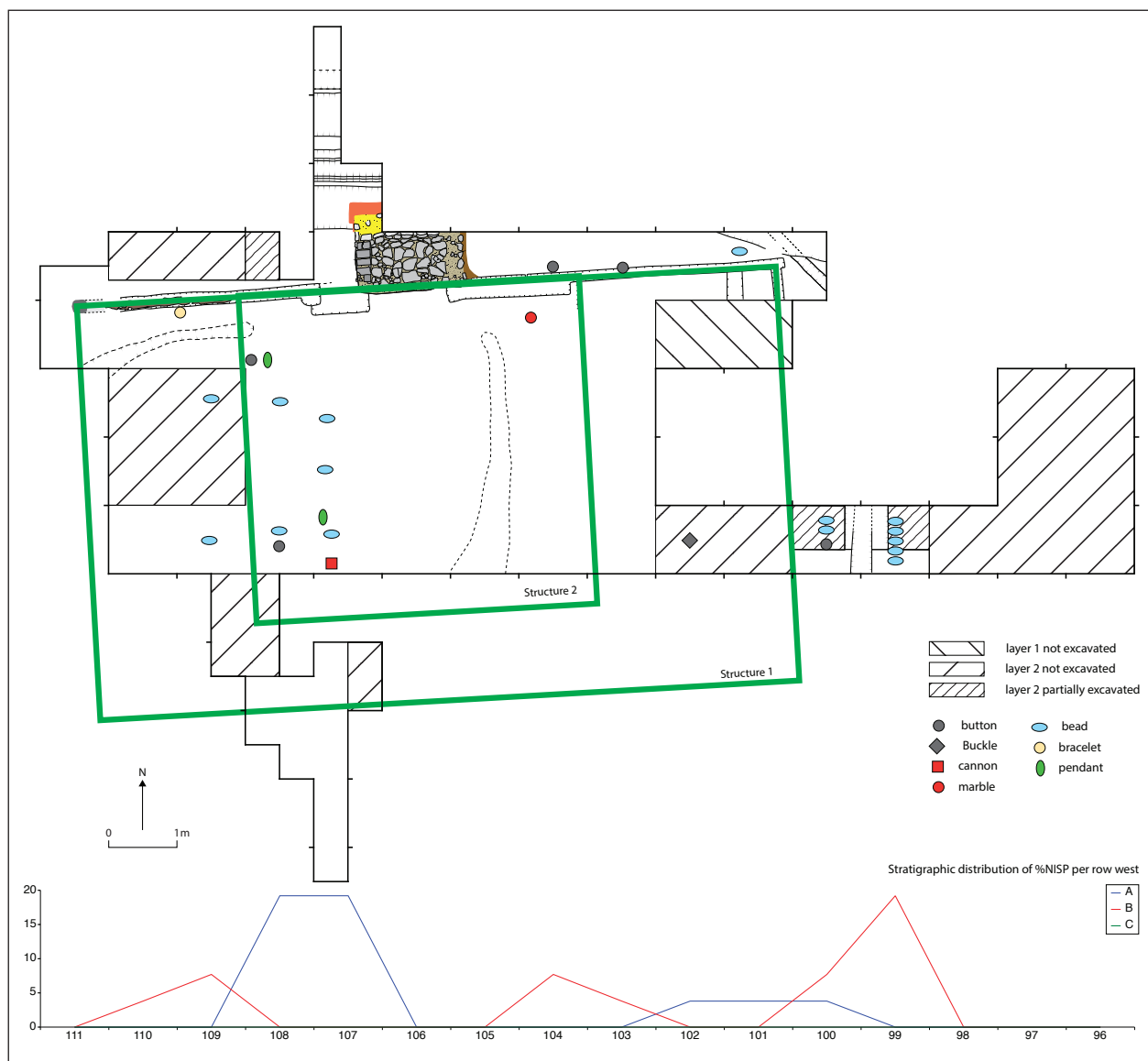


Figure 57. Distribution of Personal Items in Area 1. Symbols indicate location; graph shows %NISP by stratigraphic assemblage

structure 2. The former occurred in both the lower and upper drain fills and presumably accumulated there throughout occupation of the site. The second cluster is around the eastern wall line of structure 2, on the pebble path outside this building, or in the topsoil just within its footprint, suggesting that they had migrated under the building from the paved area. Other finds in this vicinity include the bracelet, one of the toys, and both pendants. Together these items suggests that the pavement east of structure 2 was a childrens activity area, even during the second phase of activity when the school had been moved to a lower terrace.

The small collection of toys acts as yet another reminder of the presence of children at the mission. In a situation such as the frontier mission station of Hohi it is probable that the children valued any toys they could get their hands on, even the lowly earthenware marble which would be extremely easy to replace in a less remote setting. A similar marble was found at Te Puna but it is much smaller than

the Hohi example.

The bracelet, from the size of it, is more likely to been worn by an adult than a child, and that is certainly the case for the pounamu pendants. With one of these broken at the point of attachment and both found inside the footprint of the schoolhouse, it is possible that these were lost during one of the fracas recorded at the schoolhouse in 1824 (section 2.4.2).

4.7 Clay Tobacco Pipes

Clay pipes provide another form of insight into the people who occupied Hohi, in this case presumably adults. They were found in relatively large quantities in both excavated Areas, totalling 265 fragments and 31 individual items (Table 19). These were analysed by portion, form, decoration and marks. MN was taken from the number of 'junctions' present, referring to the portion of the pipe at which the base of the bowl and shank of the stem meet. Form was

Table 19. *Clay pipe assemblages*

Assemblage	Weight (g)	NISP	MN
1	240.66	149	19
2	146.67	105	9
3	8.15	6	1
4	8.20	5	2
Total	403.68	265	31

identified where possible, drawing predominantly on Bradley (2000) and Oswald (1975). Any marks and/or decoration were recorded, drawn and identified as closely as possible to technique, motif and/or manufacturer. Only 13 % of the total assemblage displayed decoration, with an even smaller 6% bearing manufacturers marks. These are discussed within their respective assemblages below.

4.7.1 Assemblage 1

Assemblage 1 contained the largest number of smoking pipes, with a total NISP of 149 and MN of 19. All appeared to be made of 'white ball' clay, a fine grained malleable clay often referred to as kaolin (Bradley 2000:108), although

one was dark grey throughout the body of the pipe presumably having been burnt (Figure 58). Nearly all of the stem and bowl fragments recovered displayed a longitudinal seam running down the front and/or back of the bowl and along the stem, indicating the use of a two piece mould for manufacture, the most common method for pipes of this type (Ayto 1999; Bradley 2000).

Form

No complete pipes were recovered from Area 1; of the 149 fragments found over 70% were stem only, with no pieces larger than 77 mm in length. This degree of fragmentation made it difficult, although not impossible, to ascertain the overall form of the pipes. Sixteen individual pipes were identified as single unit pipes, defined as 'one piece construction' (Bradley 2000:104–5). Ten of these were also identifiable as having what Bradley (*ibid.*:106) calls 'straight stem configuration', meaning the shank and body of the stem extend out from the junction in a straight, rather than curved, line (e.g. Figure 58a, b). The majority of the stem fragments found within this assemblage displayed little to no curve, suggesting that they also represent this stem configuration. No bites were identified and



Figure 58. Selected clay pipes

the degree of post-depositional wear on the stems made it impossible to identify if stems had been shortened deliberately, rather than broken.

The most complete bowls from this assemblage are typical of forms common in the late 1700s and early 1800s, where the bowl angles away from the smoker rather than extending straight upwards from the stem at an almost perpendicular angle, as became common in the latter half of the nineteenth century (Bradley 2000). The lip of three of the more complete examples are parallel to the stem (e.g. Figure 58a), characteristic of these types, while a fourth is shaped so that the lip is angled away from the stem (Figure 58c). As such, the latter is reminiscent of earlier eighteenth century bowl types (Bradley 2000) or later nineteenth century forms as epitomised by Oswald's (1975) type 14, dated from 1820–40. Given the context, it is more likely to have been the latter than the former. The rest of the bowls, insofar as they can be identified to type, fit within Oswald's bowl types 12 and 13, which he dates to 1730–1780 and 1780–1820 respectively, although it should be noted that these are British and European date ranges and may need to be extended somewhat in the context of New Zealand (Oswald 1975: 37–39).

Fifteen of the individual pipe junctions found had a heel or spur at the base of the bowl/stem shank, in addition to a solitary spur fragment. Spurs became common on smoking pipes during the seventeenth century (Ayto 1999), eventually fading from use in the mid-nineteenth century (Gojak & Stuart 1999). Heels, a flatter and shallower protrusion common on earlier forms, would have allowed the pipe to rest upright on a flat surface, such as a table top, while spurs are believed to have prevented smokers from burning their fingers on the bowls, the walls of which grew progressively thinner with time (Ayto 1999; Bradley 2000). The spurs identified within Assemblage 1 were almost all so-called pedestal spurs (Ayto 1999), in various degrees of length and width. Two flat bottomed pedestal spurs were noted (e.g. Figure 58a), in addition to one 'long' type (Figure 59h). Many of these bore raised markings, which are discussed in the following section.

Decoration and Marks

Fourteen bowl fragments, comprising a minimum number of six bowls were decorated within this assemblage. The most common motif was geometric, consisting of raised vertical lines in a band around the lip (Figure 59a), on the base of the bowl (Figure 59b) or reaching from the base and stopping at a point below the lip (Figure 59c, d). The latter also had raised sunburst/flowers on either side of the spur. Another three fragments were decorated along the seams of the pipe bowl with strands of foliage, similar to a corn sheaf (Figure 59e, f), or some other plant (Figure 59g). Both of these were common nineteenth century decorative motifs (Bradley 2000), the latter in particular was used to disguise the presence of mould seams on the bowl and stem of a pipe.

Two further decorated bowl fragments differ from the others not only in design, but also in regard to technique (Figure 59h, i). The motif appears to be more complex, in the form of floral elements, lines, dots, sunburst and a circular frame enclosing writing, but the decoration itself is far cruder than the rest of the fragments. The design was identified as Masonic (referring to the society of Freemasons), a motif which began appearing on clay pipes in the mid eighteenth century (Bradley 2000). Pipes bearing this design were common during the early to mid-nineteenth century: they were manufactured in Glasgow and Belfast and have been found at archaeological sites in the U.S.A., Canada and Australia (Beaudry 1993; Birmingham 1992). In New Zealand, the first Masonic lodge was established in 1842 (Phillips 2011), but it is not known how direct the correlation between Freemasonry and objects bearing Masonic designs was. The pipe found at Hohi was also decorated with floral and leaf relief on the stem, the partial mark ...ON, and flowers on either side of the spur. Only one other decorated stem fragment was found within this assemblage, displaying a geometric motif of two lines circling the body of the stem with raised dots in front of them (Figure 59j).

Only fourteen of the 149 fragments from Assemblage 1 (9%) had discernible makers marks, including the Masonic pipe. Four of these were marked on the spur of the pipe (Figure 59k–n): two with the initials C/W, one R/W, one partial E/?. Both of the latter were also decorated on the bowl. Nine stem fragments displayed marks, comprising a total of five individual marks. Three of these were identifiable as Joseph Elliot pipes (two definitively and one probably), bearing the mark J. ELLIOTT MAKER / MARKET WHARF (Figure 59o–q). Joseph Elliot was a Sydney pipe maker and exporter operating during the 1830s. Gojak and Stuart (1999) give the dates for his operation as 1831 – 1837, which would place their manufacture right at the end of the known occupation of Hohi. The implications of this are discussed in section 4.7.5 below. The fourth marked pipe had a partial embossing of CLA... (Figure 59r) which we have not been able to identify. Nor can we identify the maker of the masonic pipe from the partial mark ...ON (Figure 59h).

4.7.2 Assemblage 2

Although 105 fragments of clay pipe were found in Assemblage 2, only nine individual pipes were identified. All of the fragments recovered were made from white ball clay and, as in Assemblage 1, the majority displayed evidence of longitudinal seams, indicating the use of two piece moulds in the process of manufacture.

Form

Stem fragments comprised just under 70% of the portions present in this assemblage, with a further 20% of fragments found consisting of the bowl only. The longest stem fragment identified was 79 mm in length. As in Assemblage 1, the degree of fragmentation made identification

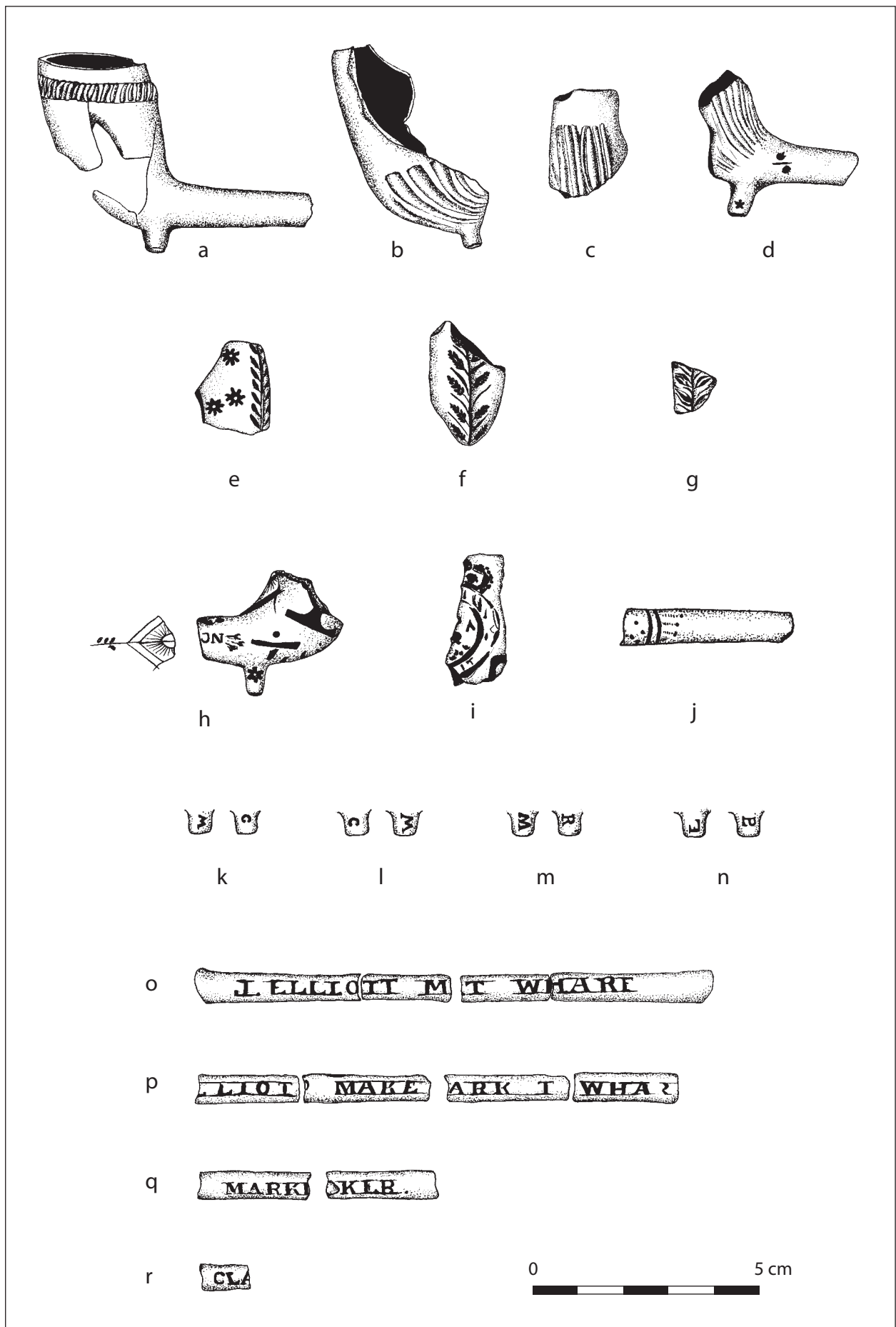


Figure 59. Decorated and marked pipes in Assemblage 1

of overall form difficult, although six pipes were able to be classified as of single unit composition, three of which were also of straight stem configuration. Again, the stem fragments found within this assemblage displayed little to no curve and are likely to have been of a similar overall configuration. No bites were found and all the fragments were showed evidence of post-depositional wear.

No bowls were found in Assemblage 2 with a degree of completeness comparable to those from Assemblage 1 and it is therefore difficult to discuss bowl forms with any degree of certainty. The small amount of information discernible from the body, rim and junction fragments found suggests forms correlating to Oswald's types 12 through 14 (Oswald 1975: 37–39).

Six of the junctions found within this assemblage also had spurs present at the base of the bowl, all but one of which were further identified as pedestal spurs (Ayto 1999). The exception was a pipe with a broken spur which was thus unable to be identified to type. Three of these spurs were also marked with initials, discussed in the following section.

Decoration and Marks

Four of the pipe bowls represented in Assemblage 2 were decorated, all with raised relief. These included a fragment with the same vertical line motif common in Assemblage 1 (Figure 60a), and another that combined a strand of foliage up the stem with what appears to be a partial angel's wing on the body of the bowl (Figure 60b). Two of the motifs were so fragmentary as to be unidentifiable (Figure 60c).

Five decorated stems were also found, three of which bore a raised geometric motif with encircling lines and dots, similar to that found in Assemblage 1 (Figure 60d–f). The remaining two decorated pipe stems displayed a combination of diagonal lines and dots along the body of the stem and sets of dashed lines on the shank, separated by two lines encircling the stem itself (Figure 60g, h). The more complete example also bore the mark JONES between two horizontal lines on the stem, while both items displayed the initials I/J on either side of the spur. So far, no references have been found to identify the origins of this particular

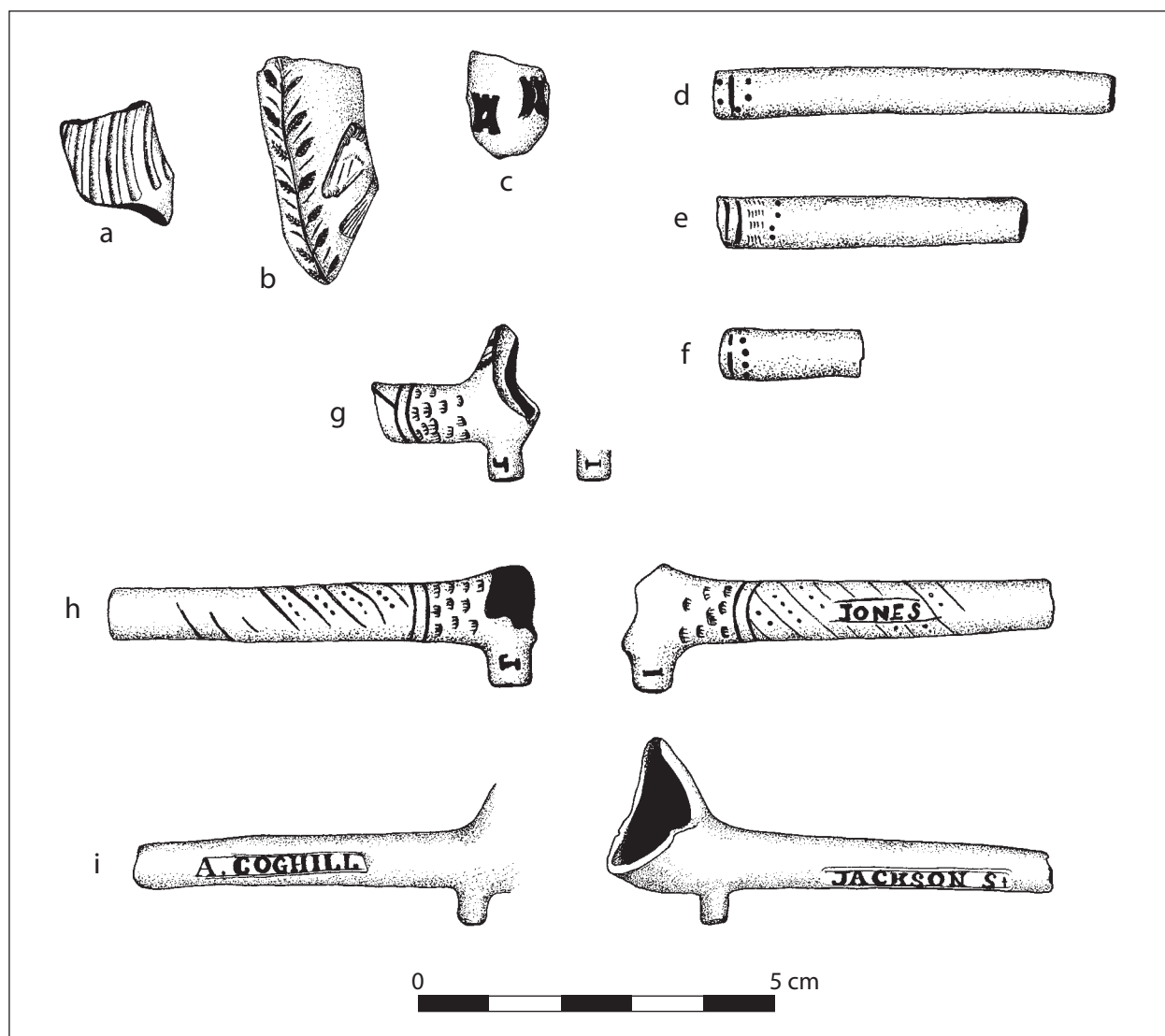


Figure 60. Decorated and marked pipes from Assemblage 2

pipe maker, although Brassey (1991) notes the presence of a similarly marked pipe at the later nineteenth century site of the Victoria Hotel, Auckland.

In addition to the two presumed Jones pipes, another stem was found imprinted with the mark A. COGHILL/JACKSON ST (Figure 60i). A. Coghill refers to Alexander Coghill, a Glaswegian pipemaker who operated out of a Jackson St premises from 1826 until his death in 1860, after which the business was continued by family members (*Edinburgh Gazette* September 14 1860; Sudbury & Gerth 2011).

4.7.3 Assemblage 3

Only six clay pipe fragments, three bowl pieces and three stem pieces, were found within Assemblage 3, comprising a minimum of one individual pipe. None of the fragments were marked, or able to be identified to overall form or manufacture.

4.7.4 Assemblage 4

Two individual clay pipes were present within Assemblage 4, composed of five fragments, including two junctions. Both pipes could be identified as of single unit composition, although it proved impossible to determine stem configuration. None of the bowl fragments were complete enough to demonstrate form, but pedestal spurs were present on both junctions. One of these was marked with the initials I. J., suggesting the possibility that it may have been a Jones pipe, similar to those found in Assemblage 2. No other marks or decoration were noted.

4.7.5 Discussion

Several features of the clay pipe assemblage suggest that much of it derives from the second half of the Hohi occupation sequence. In Area 1 60% of the items were from layer 1 and two thirds of these from the western third of the excavation (w107–111), the same area that personal artefacts suggest was a paved activity zone during occu-

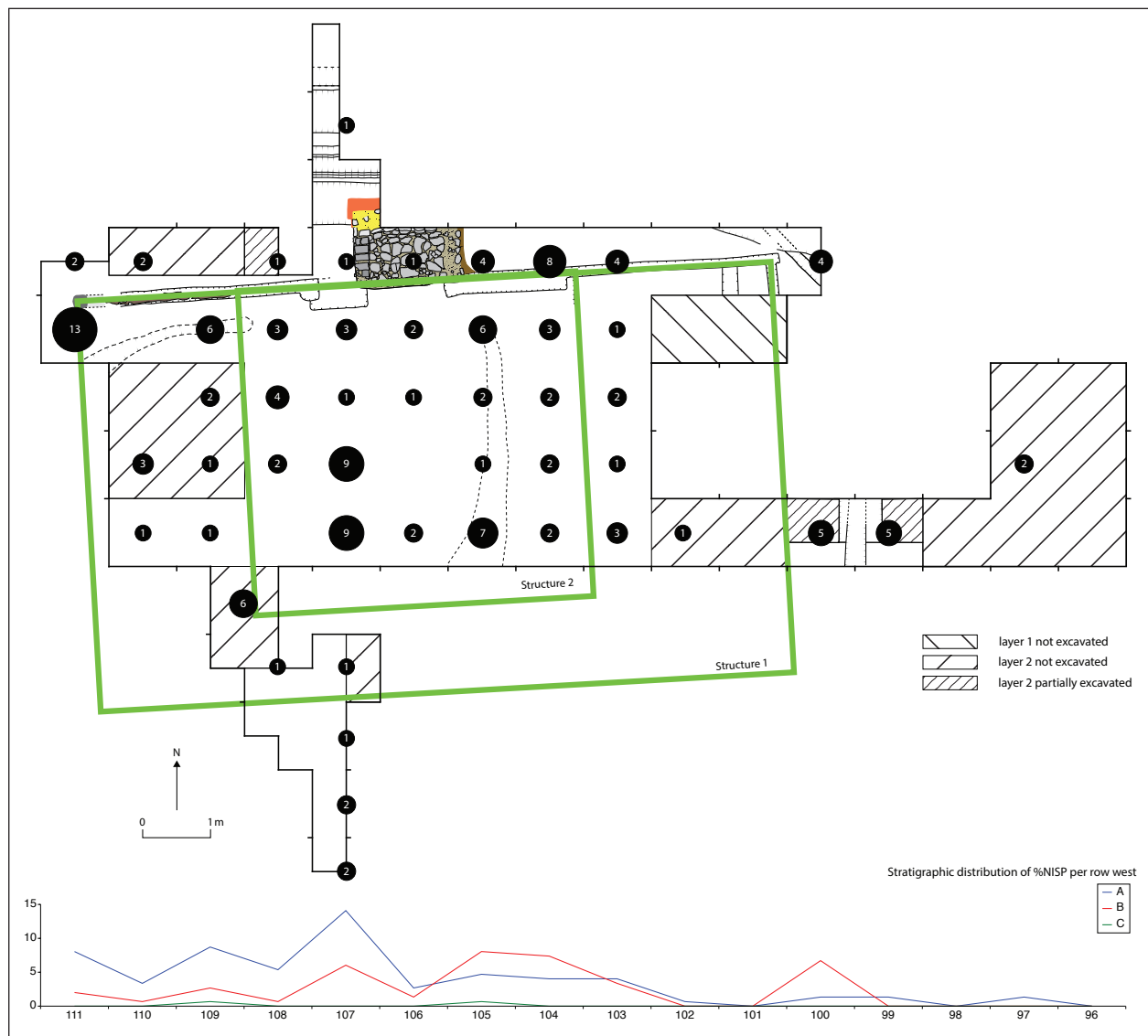


Figure 61. Distribution of clay pipes in Area 1. Circles on the plan represent NISP per m²; the graph shows %NISP by stratigraphic assemblage

pation of Structure 2 (Figure 61). The three datable items from this area can be no older than 1831, and one of these derives from the eastern end of the excavation, indicating that deposition of pipes there was also late in the sequence. In Area 2 90% of the pipe fragments were from the upper occupation (Assemblage 2) and strongly concentrated around the hearth and wall line of the small structure built there late in the missionary occupation (Figure 62). The one datable item here can be no older than 1826.

Pipes manufactured by A. Coghill occur widely throughout New Zealand in sites from throughout the 19th century, while those by J. Elliott are comparatively rare. The latter have been identified at Codfish Island, in southern New Zealand (Spinks 2007:54), and in the Bay of Islands at Te Puna (Middleton 2005a:95) and probably also Rewa's Pa (Best 2002:84–5), all of which have occupation dates that overlap with the final years of activity at Hohi. This may indicate that Sydney pipe manufacturers played a larger role in supplying the New Zealand market than was the case in later times (c.f. Brassey 1991).

The majority of pipes found at Hohi were undecorated or display very simple decoration using motifs based around repeating geometric and floral patterns that were ubiquitous in the early 19th century. Raised or fluted vertical lines are reported from both Te Puna and Rewa's Pa, and also at Wybalenna, Tasmania, which dates from 1835–1847 (Birmingham 1992). Leaf decoration identical or similar occur at those three sites and also Codfish Island. A masonic design identical to the Hohi example occurs at Wybalenna.

4.8 Ceramic Vessels

In total 607 sherds of ceramic were recovered from the Hohi mission site, representing a total minimum number of vessels (MNV) of 91 (Table 20). This was calculated predominantly by using rim sherds, although where an obviously unique vessel was present but not represented by any pieces from the rim these vessels were also counted. Where possible, rim diameter was calculated using a simple formula (Figure 63). The fragmentary nature of the as-

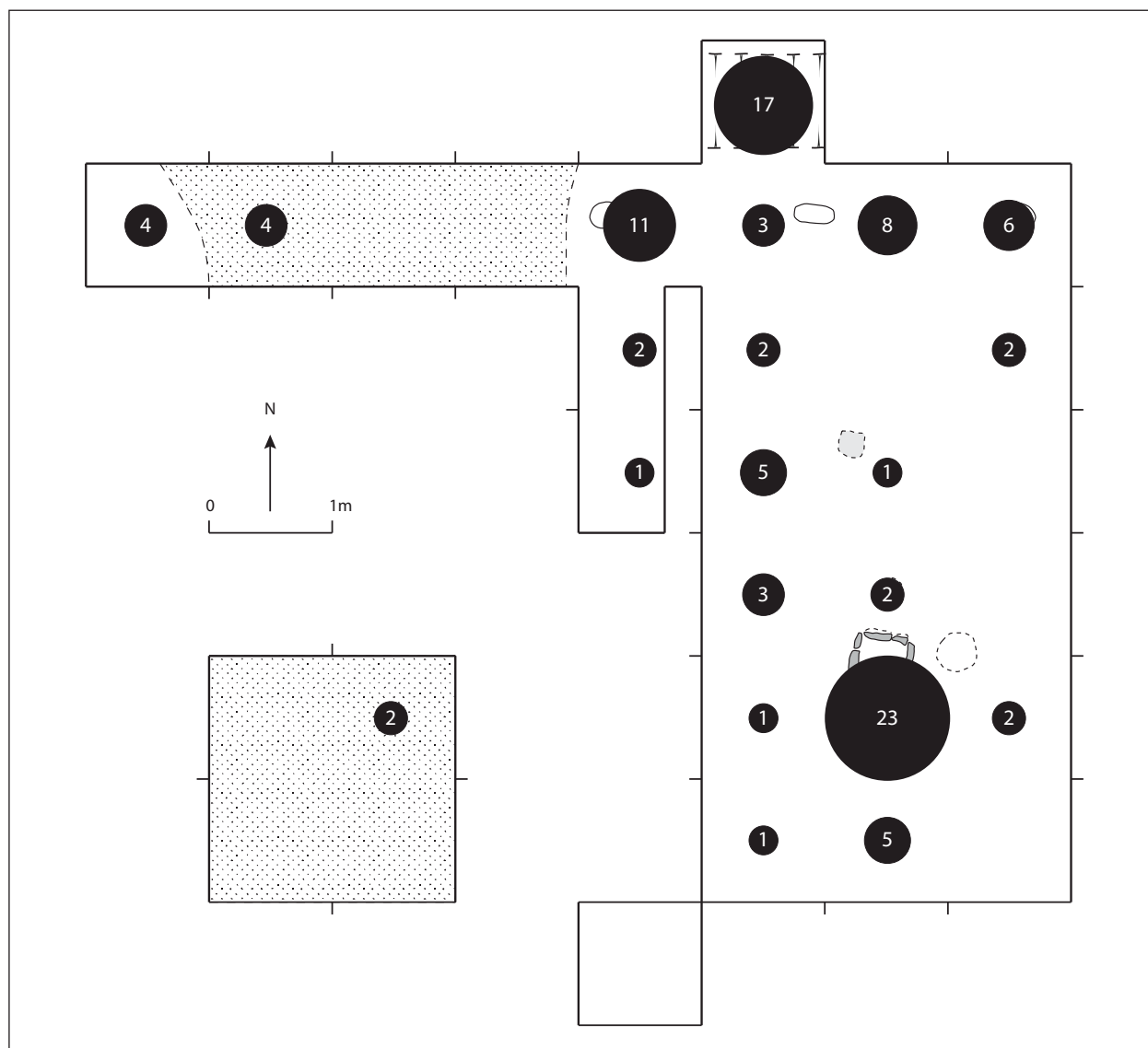


Figure 62. Distribution of clay pipes in Area 2. Circles on the plan represent NISP per m²

Table 20. *Hohi Ceramic Assemblages: weight, NISP, MNV*

Assemblage	Weight (g)	NISP	MNV
1	1303.8	482	58
2	187.6	60	14
3	105.4	51	13
4	38.8	12	4
5	9.6	2	2
Total	1645.2	607	91

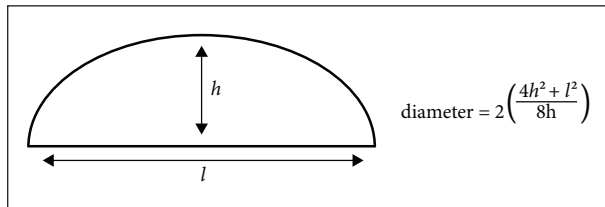


Figure 63. Formula and method for calculation of ceramic rim diameters

semblage meant that this was often not possible, however.

The majority of the fragments were from Assemblage 1. No maker's marks or even almost complete vessels were found, and most of the fragments are very small, but useful information was still able to be gathered from the sherds.

Vessel Forms

Identifying the ceramic sherds to vessel type was often not possible due to the small size of many of the fragments but the information that was able to be gathered (Table 21) showed that plates were the dominant vessel form (53%). Three sizes of these were present. Four large serving platters were identified, although it was not possible to determine their rim diameters. There were also large dinner plates with rim diameters between 220 and 260 millimetres, and smaller examples, presumably side plates, at around 160 millimetres. Most, but not all, of the plates have footrings.

With the hollow-ware items it was impossible in most cases to distinguish between cups and bowls so almost two thirds of the items were classified as 'bowl or cup'; together these items form the most second most common category (21%).

Other vessel forms identified include at least five jugs (including one small creamer), four chamberpots, a teapot and at least one storage vessel.

Ware Types and Decoration

The Hohi ceramic assemblage is dominated by earthenware, with whiteware and creamware most common, along with small quantities of semi-vitrified whiteware, coarse earthenware and tin-glazed ware (Table 21). Whiteware is

Table 21. *Ceramic Wares and Vessels (MNV)*

WARE AND VESSEL FORM	ASSEMBLAGE					TOTAL
	1	2	3	4	5	
Earthenware						
whiteware						
plate	16	3	–	–	–	19
plate or bowl	1	–	–	–	–	1
bowl	1	–	1	–	–	2
bowl or cup	8	1	2	–	–	11
cup	2	–	–	–	–	2
cup or jug	1	–	–	–	–	1
jug	3	–	–	–	–	3
chamber pot	2	–	–	–	–	2
unidentified	1	–	1	–	1	3
Subtotal	35	4	4	–	1	44
creamware						
plate	8	7	6	3	–	24
plate or bowl	1	–	–	–	–	1
bowl	2	–	–	–	–	2
bowl or cup	–	–	–	–	1	1
cup or jug	–	–	1	–	–	1
jug	2	–	–	–	–	2
chamber pot	2	–	–	–	–	2
Subtotal	15	7	7	3	1	33
semi-vitrified whiteware						
plate	1	–	–	–	–	1
unidentified	–	1	–	–	–	1
Subtotal	1	1	–	–	–	2
pearlware						
plate	1	–	–	–	–	1
tin-glazed earthenware						
unidentified	–	1	–	–	–	1
coarse earthenware						
unidentified	–	1	–	1	–	2
Total	52	14	11	4	2	83
Porcelain						
Cantonware						
plate	3	–	–	–	–	3
bowl	1	–	–	–	–	1
total	4	–	–	–	–	4
hard-paste porcelain						
unidentified	–	–	1	–	–	1
Total	4	–	1	–	–	5
Stoneware						
salt-glazed						
storage vessel	1	–	–	–	–	1
unidentified	–	–	1	–	–	1
Subtotal	1	–	1	–	–	2
black basalt						
teapot	1	–	–	–	–	1
Total	2	–	1	–	–	3
TOTAL MNV	58	14	13	4	2	91

most common, closely followed by creamware. Five porcelain vessels are represented, four of which are a type of Chinese export porcelain known as ‘Canton’ ware. Three sherds from three different stoneware vessels were also found at the site.

Just under half of the Hohi ceramic vessels are undecorated (Table 22). Of the decoration styles represented, underglaze transfer printing is by far the most common, with hand-painted items also reasonably numerous.

4.8.1 Assemblage 1

This assemblage is by far the largest and consists of 482 sherds representing an MNV of 58. Almost all of the fragments are earthenware, with the exception of 39 pieces of porcelain and two of stoneware.

EARTHENWARE

Whiteware accounts for the largest number of vessels in this assemblage (Table 21) but there are also a relatively high number of creamware vessels. Both ware types are represented by decorated and plain fragments.

Whiteware

The majority of the whiteware fragments from Assemblage 1 are decorated in one of three styles; under-glaze transfer printed (UGTP), shell-edged, or annular.

Underglaze Transfer Print

This is the most common form of decoration in the assemblage, occurring on 22 vessels. Blue is the only colour present, in a number of different shades, ranging from a deep, cobalt blue to much paler hues. Several vessel types were found with this style of decoration, of which plates were the most numerous (MNV = 8), but which also included bowls (1), bowl/cups (7), cups (2), chamberpots (2) and a small creamer.

Two patterns were able to be identified; Willow and Wild Rose. Willow was present on the most vessels, a typical characteristic of assemblages from this period in time (Woods 2011:66). A total of seven vessels were decorated with this pattern, none of which appear to be from the same set as the quality, shade of blue and some of the pattern details differ (Figure 64a-d). A sherd which appears to be from one of these vessels (a Willow pattern bowl) was found in Area 2 (Assemblage 4). Wild Rose was identified on one bowl/cup fragment (Figure 64f). This was another extremely popular pattern at this time and similar sherds were recovered from the Te Puna mission site (Middleton 2008:207).

The other sherds are decorated with a range of different motifs, but most seem to include floral border designs and scenic elements, more specifically rather British looking scenery. One plate is decorated with a cityscape consist-

Table 22. Ceramic Decoration Styles (MNV)

Style	Assemblage					Total
	1	2	3	4	5	
plain	20	7	8	4	1	40
underglaze transfer print	22	4	4	–	1	31
hand painted	7	3	–	–	–	10
shell-edged	4	–	–	–	–	1
industrial slip	2	–	–	–	–	2
moulded	2	–	–	–	–	2
salt-glazed	1	–	1	–	–	1
Total	58	14	13	4	2	91

ing of traditional Tudor style houses (Figure 64e), while another sherd shows the heads of two deer (Figure 64g), which were commonly depicted in the foreground of rural scenes which included British stately homes (Coysh & Henrywood 1982:105). These design motifs were most common between ca. 1815 and 1840 (Samford 1997:9), so the vessels decorated in this style would probably have been brand new and very much in vogue when they arrived in Hohi.

Shell-edged ware

Rim fragments from four shell-edged plates were also found in and around the school house. All have a scalloped rim and impressed, curved lines but each is subtly different (Figure 65). This decorative technique was inspired by the 18th Century Rococo movement and was at the height of its popularity when Hohi was occupied (Woods 2011:62–3). At this time it was some of the cheapest decorated tableware available (Miller 1991:6).

Industrial Slip Wares

Fragments of two jugs decorated with different forms of industrial slip (Brooks 2005:36, 40) were found in Area 1. One has a combination of engine-turned bands and the characteristic Mocha dendritic pattern and a colour scheme of earthy browns, green, black and blue (Figure 66). The other has reddish-brown and black banding. These decorative styles were most commonly used on cheap, utilitarian vessels, and at their peak of popularity between 1790 and 1830 (Woods 2011:69).

Undecorated

Only four plain whiteware vessels, all plates, were represented in this assemblage (Figure 67). This is unusual for a New Zealand historic site, but is not surprising for a settlement dating prior to 1830, as at this point in time creamware was still common, as discussed below.

Creamware

Almost half (49%) of the ceramic fragments in this assemblage are creamware. This ware is often difficult to

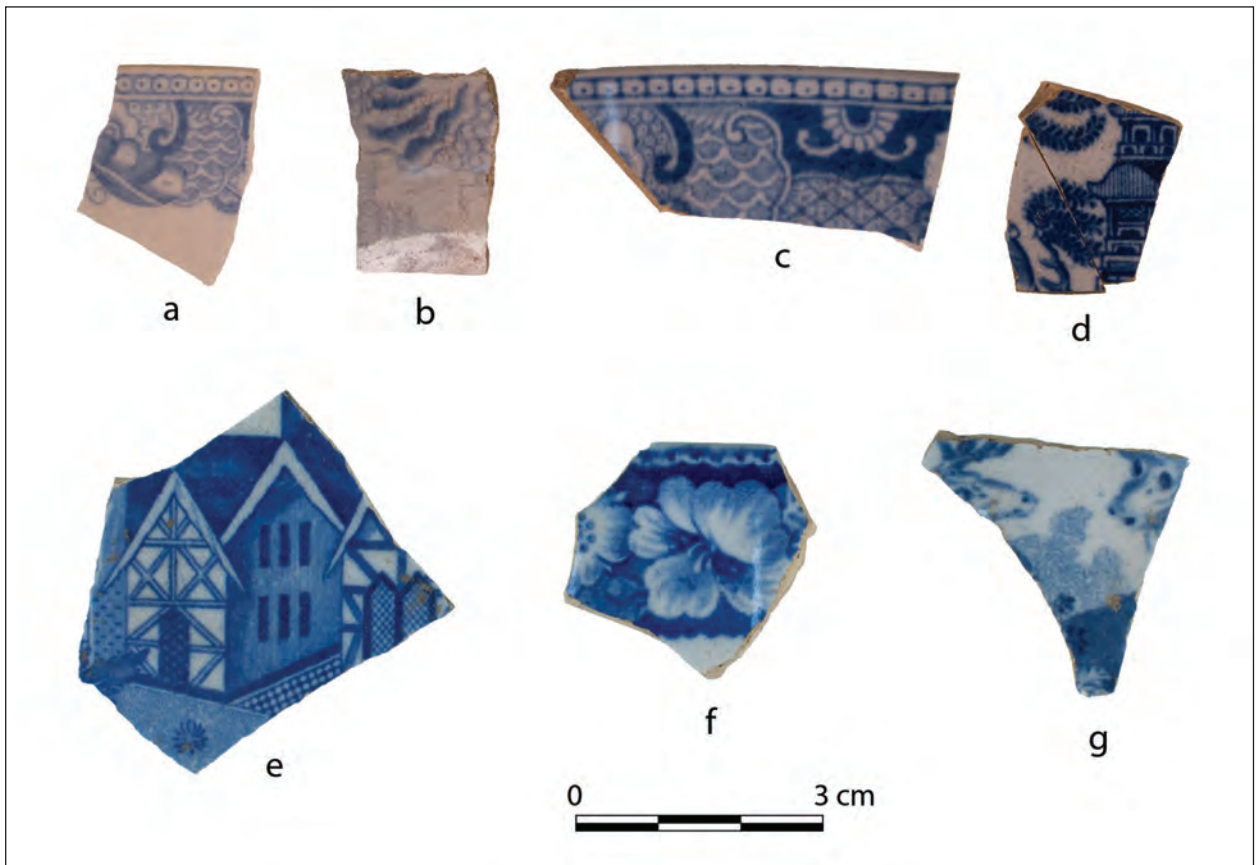


Figure 64. Selected underglaze transfer printed vessel fragments from Assemblage 1

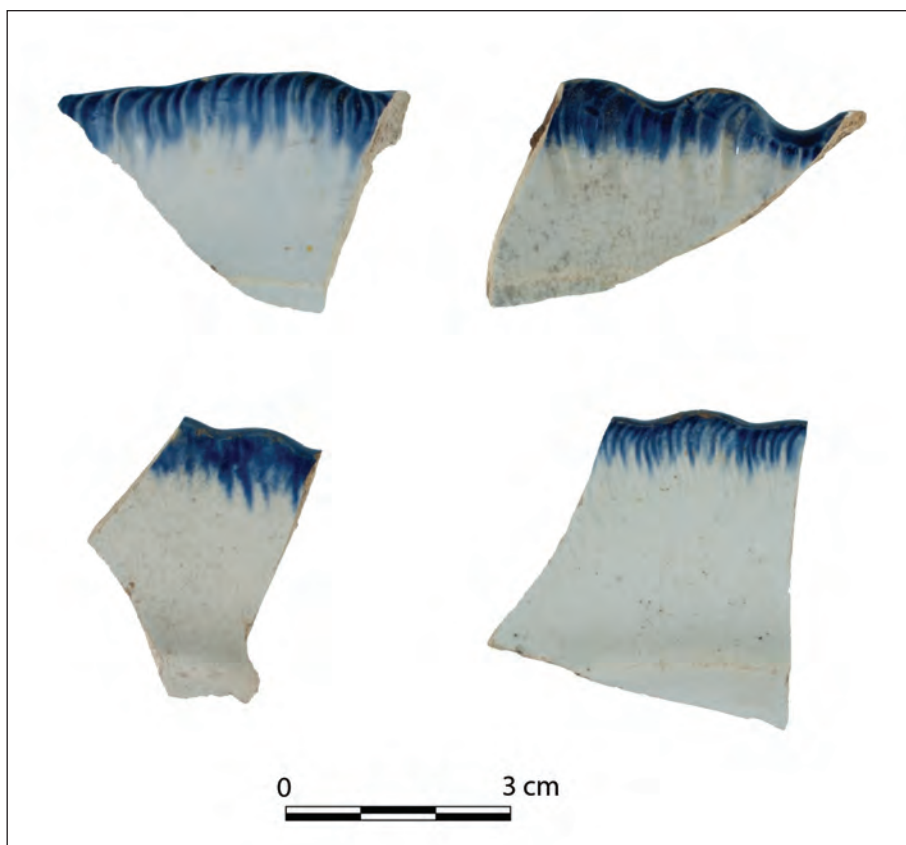


Figure 65. Shell-edged ware from Assemblage 1

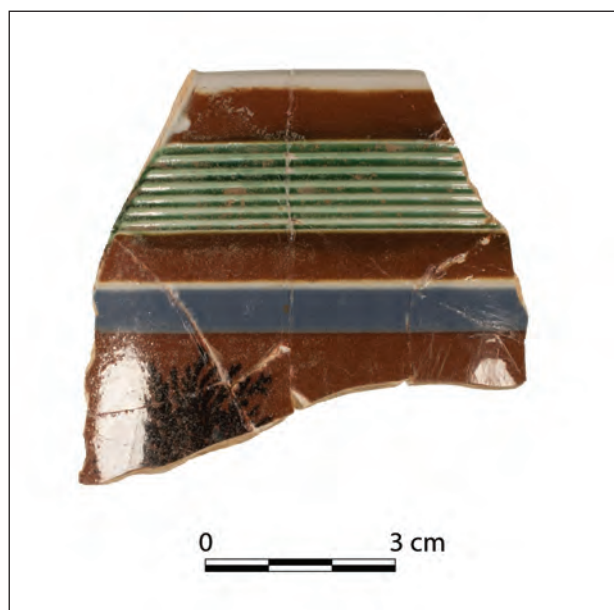


Figure 66. Industrial slip ware from Assemblage 1



Figure 67. Undecorated whiteware from Assemblage 1

distinguish from early whiteware (Brooks 2005: 29; Miller 1980: 2), a problem that is particularly acute in sites from the early decades of the 19th century which saw the demise of cream coloured ceramics and the rise of whiteware. The former did not disappear over night, instead becoming steadily paler until it was no longer cream in colour, thanks to advances in ceramic technology and the availability of new, paler clays (Miller 1991: 5). In addition, whiteware is prone to discolouration after extended periods of time under the ground, making it difficult to identify which sherds are truly cream and which are white (Brooks 2005: 29). These issues do not usually arise in New Zealand historic sites, as by the time organised settlement began in the 1840s creamware was already very rare and much less popular than whiteware. Hohi, however, is early enough that the occupants would have had ample access to cream coloured ceramics, while white bodied wares would have been relatively scarce and more expensive.

Decorated

Several fragments from an unusually decorated creamware vessel were found across Area 1. They were all able to be refitted but not enough of the vessel is present to positively identify it to form, although it seems likely to be a jug or vase. It appears to have been hand-decorated although the exact method used is unclear. The black decoration consists of a thick band above a repeating pattern that resembles fish scales (Figure 68a). This piece is unusual because creamware is very rarely decorated and the pattern is not a familiar one. It is also interesting to note that different taphonomic processes have clearly been acting within Area 1, as the state of preservation for the joining sherds is variable.

Undecorated

The remaining 225 sherds of creamware, representing at least 15 vessels, are undecorated. This category includes a range of vessel types, mostly plates (Figure 68b-d), but also two small bowls, two jugs and two chamberpots (Figure 68e). These would probably have been the vessels that were used every day and were certainly those which cost the least (Miller 1980: 3).

Pearlware

Three sherds, all from a single plate exhibit the bluish-tinted clear glaze that characterises 'China glaze' or pearlware (Figure 69). This colouration was achieved by the addition of cobalt to the glaze, and was introduced by Staffordshire potters about 1775 to mimic the appearance of Chinese porcelain (Miller & Hunter 2001). It had a brief period of popularity which was over by 1830 (Brooks 2005).

STONEWARE

Only two pieces of stoneware were found in this area, representing two different vessels. One sherd is of black basalt ware while the other is salt-glazed.

Black basalt

One piece of black basalt, from the base of what appears to be a teapot, is included in this assemblage (Figure 70a). It is a very fine-grained stoneware that has cobalt and manganese added to the clay mix to give the end result a distinctive black colour (Miller 1991: 10). This particular piece displays the typical moulded decoration associated with this ware (Brooks 2005: 27). At the time of occupation at the Hohi mission station, this type of teaware was some of the most expensive available, so this would probably have been a highly prized piece (Miller 1991: 22).

Salt-glazed

The other stoneware sherd is a fragment of a grey bodied, salt-glazed vessel (Figure 70b). It has a typical brown

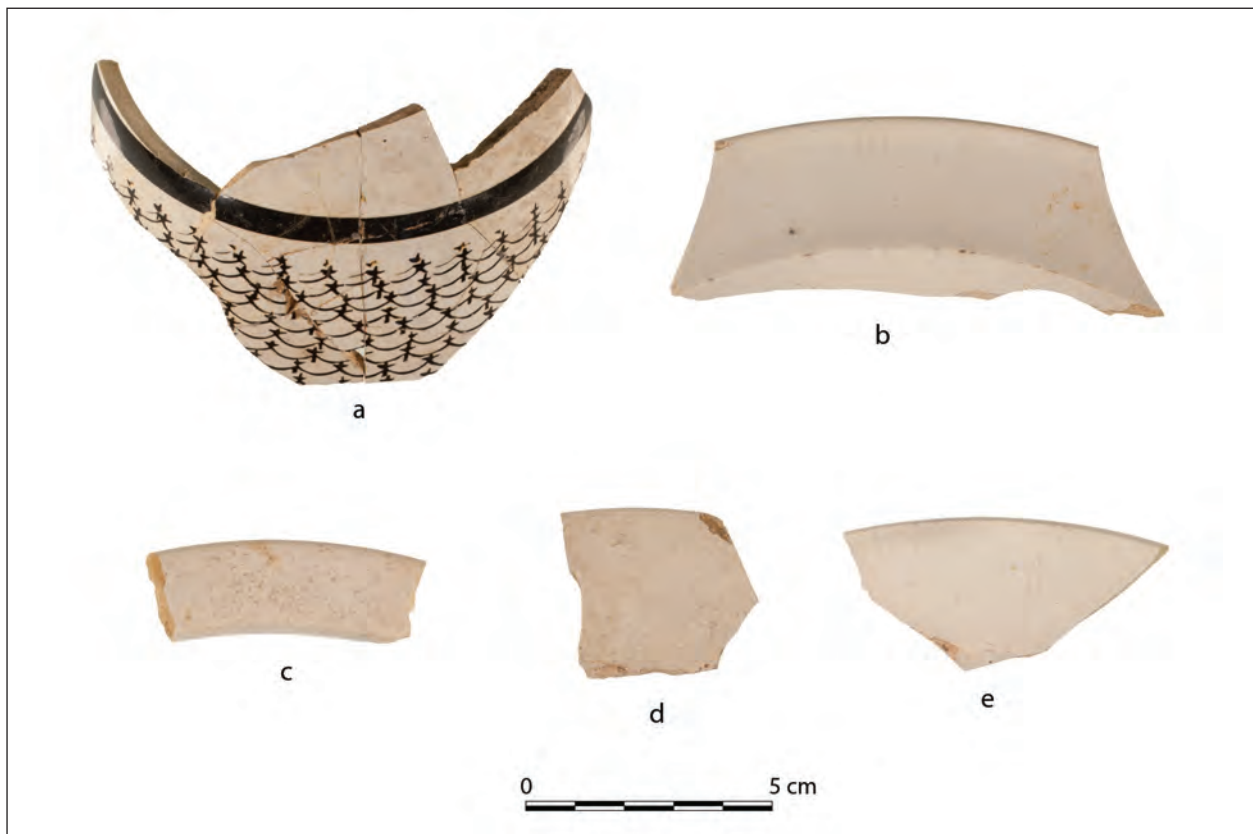


Figure 68. Creamware from Assemblage 1

coloured glaze and is most likely from a very utilitarian storage vessel.

PORCELAIN

Canton ware

Four vessels in this assemblage are a Chinese export porcelain known as 'Canton' ware. This ware has a date range of *ca.* 1785–1853 (Madsen & White 2011: 101). All are blue and white and very oriental in appearance. The three plates have slightly scalloped rims and a border pattern comprised of a blue lattice pattern and an inner band of wavy lines (Figure 71a–c), also known as a 'rain and clouds' border (Mudge 1962: 140). The central scene, which is typical of this ware, incorporates distant mountains with a small house (tea house), arched bridge and a boat in the foreground which resembles a Chinese junk. It is difficult to be sure due to the size of the fragments and the variable nature of the hand-painted design, but it appears that these plates represent a set with the same scene painted on each vessel. The ceramic body itself has a slight blue tint and the glaze is of questionable quality, a characteristic of mass produced Chinese export porcelain (Staniforth & Nash 1998: 26). A fragment from one of these plates was found in the lower layer of Area 2 (Assemblage 4) but is counted here for minimum number purposes.

The hand-painted bowl is slightly different (Figure 71d–f). It has a much whiter body but has the same 'rain and clouds' pattern around the inside of the rim as the plates have on the marly. Only small pieces of the design remain but it seems to depict several small houses and more junk-



Figure 69. Pearlware from Assemblage 1

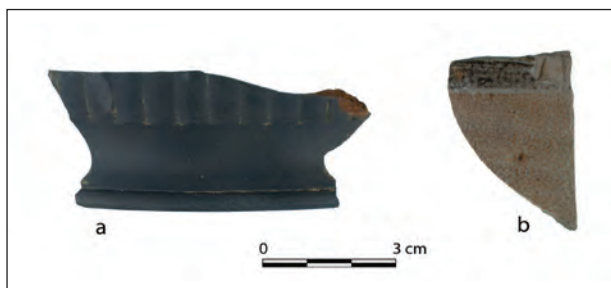


Figure 70. Stoneware vessels from Assemblage 1: a. black basalt teapot; b. salt-glazed jar/bottle

like boats, again very similar to the plates but clearly done by a different hand.

Canton wares, and the very similar Nanking ware, were extremely popular Chinese export porcelains (Mudge 1962:139). While the central patterns were not standardised and could vary considerably between sets and artists, these wares can be easily identified and distinguished by their border designs. As already noted, Canton wares have a 'rain and clouds' border, while Nanking wares have a 'spearhead' pattern (illustrated in Madsen and White 2011:102, Fig 4.70B). They were the cheapest export porcelain available and were of a reasonably low quality (Beurdely & Beurdely 1974: 260); nevertheless they enjoyed great popularity in places such as America and Australia (Leath 1999; Madsen & White 2011:103; Mudge 1962; Staniforth & Nash 1998). It is probably safe to assume that the Hoho plates and bowl were sourced through Australia.

4.8.2 Assemblage 2

Assemblage 2 contained 60 sherds which represent at least 14 vessels.

EARTHENWARE

All fragments from this assemblage were earthenware, but of several different types, with whiteware, creamware, tin-glazed and coarse earthenwares all present.

Whiteware

All of the whiteware sherds from this assemblage were decorated, one fragment by hand and the remainder through transfer printing.

Under-glaze transfer printed

Four UGTP vessels were identified in this assemblage, three plates and one bowl/cup. All the plates were decorated with Willow pattern and the bowl with an unknown design. Blue is, again, the only colour present and the design motifs are similar to those from Assemblage 1, but there do not appear to be any matching or joining pieces.

Semi-vitrified whiteware

The assemblage contained one fragment of semi-vitrified whiteware that resembles stone china (Figure 72a). It has blue hand painted decoration consisting of a band and dots, and is such a small sherd that it is not possible to extract any more information about the vessel or design.

Creamware

At least seven creamware plates were able to be identified in this assemblage, one with a very thick base suggesting that it was a large serving platter. Of the other vessels only one had a rim fragment large enough to enable the rim

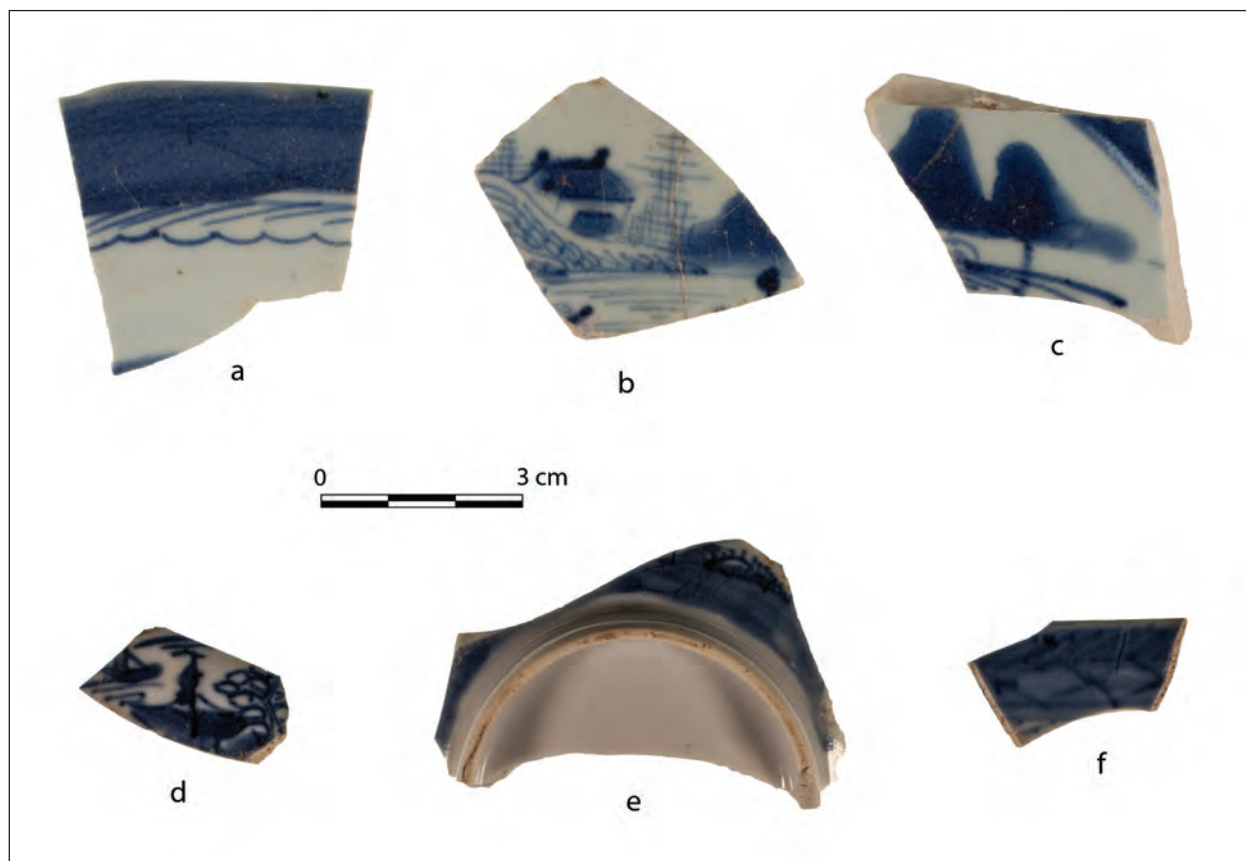


Figure 71. Canton ware vessels

diameter to be calculated, giving 164mm, making it a small side plate. One of the sherds has what appears to be the remnant of black paint around the rim (Figure 72b), although its state of preservation is poor so it is difficult to distinguish this from discolouration or a result of burning. No other evidence of decoration is apparent on any of the fragments.

Tin-glazed earthenware

The single tin-glazed fragment has a thick, buff coloured body and an opaque pale blue glaze (Figure 72c). There is also some darker blue hand-painted decoration but not enough of the vessel is present to make any comments on the design. This type of earthenware was rare after the turn of the 19th century (Brooks 2005:35), so this vessel was probably already reasonably old when it was brought to Hohi.

Coarse earthenware

Two pieces of red-bodied, very coarse-grained earthenware were included in this assemblage (Figure 72d). They are unglazed and do not appear to be of very high quality, although they are relatively thin, at around three millimetres. It is not clear what type of vessel they originate from.

4.8.3 Assemblage 3

This assemblage contained 59 fragments of ceramic, representing at least 13 vessels. The majority of the sherds were earthenware, along with one piece of stoneware and one of porcelain.

EARTHENWARE

Most of the earthenware from this assemblage is undecorated creamware, with only one undecorated and eight decorated fragments of whiteware.

Whiteware

Under-glaze transfer printed

Three UGTP vessels are represented, one a bowl and the other two either bowls or cups. The bowl fragment is decorated with a floral pattern on the exterior surface and the head and shoulders of a female figure on the inner surface (Figure 73b). One of the bowl/cups is represented by a rim fragment with a floral pattern on the inside and part of a landscape on the outside (Figure 73a). The remaining sherds have similar floral motifs and print qualities to the UGTP whiteware in the other assemblages.

Undecorated

One small sherd of undecorated whiteware was found at this level. The vessel form could not be identified

Creamware

The creamware component of Assemblage 3 comprised 41 sherds representing at least six plates and one cup or jug. All were undecorated. Three of the plates had large enough fragments present to allow the rim diameter to be calculated, showing that two were dinner plates and one was a smaller side plate. The cup or jug was represented by part of its handle.

STONEWARE

One sherd from a brown salt-glazed stoneware vessel is included in Assemblage 3. The vessel form is not identifiable.

PORCELAIN

One small piece of porcelain is included in this assemblage. It is a small body sherd with part of a blue transfer-printed design visible (Figure 73c), and is of a much higher quality than the 'Canton' vessels. It is not possible to identify the vessel to form but it is probably a teaware item.

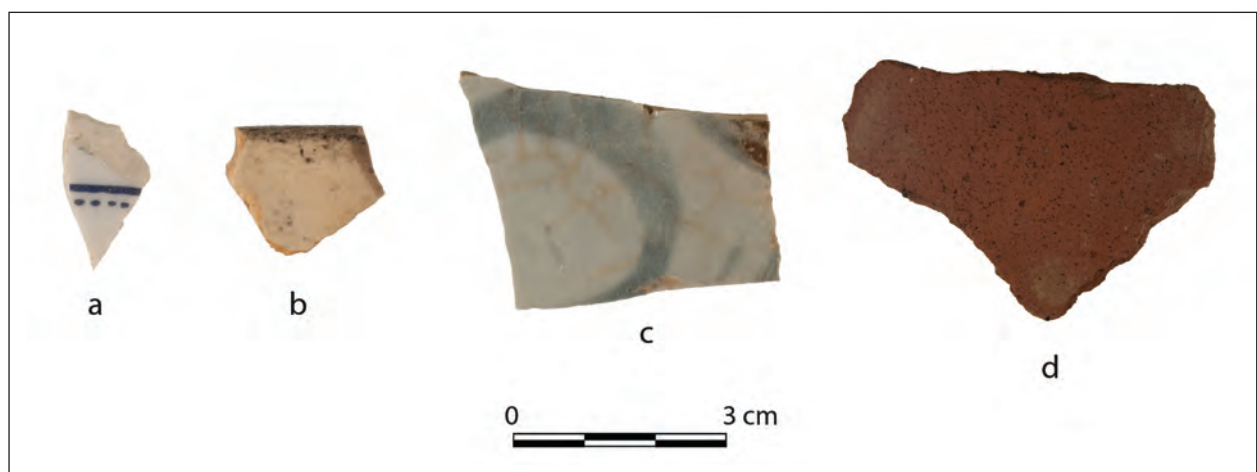


Figure 72. Selected ceramics from Assemblage 2

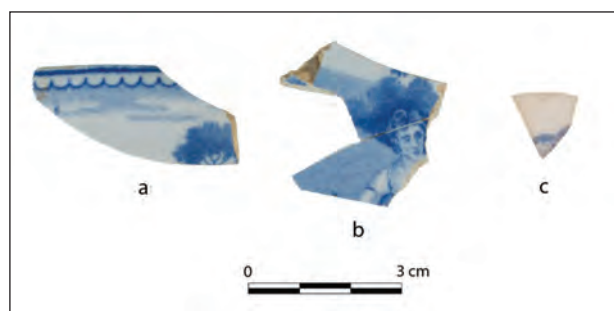


Figure 73. Selected ceramics from Assemblage 3

4.8.4 Assemblage 4

There were only 12 ceramic fragments in this assemblage, all of earthenware with the exception of one sherd of porcelain. The latter item, and one of the earthenware sherds match with vessels already counted in Assemblage 1, so are not included in the minimum number count here. The remaining sherds represent four vessels.

EARTHENWARE

Whiteware

The one sherd of whiteware in Assemblage 4 matches with the fragments from a Willow pattern cup or bowl previously discussed in Assemblage 1, and for minimum number purposes has been counted there.

Creamware

Nine undecorated creamware sherds are included in this assemblage and represent at least three plates. No data on rim diameter or other vessel characteristics was able to be extracted from the fragments, but none of the rim sherds at least appear to be from any of the vessels recorded in the other assemblages.

Coarse earthenware

One fragment of coarse earthenware was also found here. It appears to be terracotta and is glazed on the inner surface. It is not clear what type of vessel this piece is from.

PORCELAIN

A sherd from one of the Canton ware plates from Assemblage 1 is present in this assemblage.

4.8.5 Assemblage 5

The test pit was dug under the intended position of the spoil heap yielded two ceramic fragments; one rim sherd from a creamware bowl or cup, and a small piece of blue UGTP whiteware.

4.8.6 Discussion

The ceramics were strongly concentrated in Area 1 which yielded almost 80% of all fragments, and 64% of identified vessels. These were mostly in layer 1, with clusters west of the fireplace and east of the drain (Figure 74). Layer 2 material was concentrated along the northern wall of the structures, and in the pebble paving east and west of structure 2. As already noted, joining and matching sherds from individual vessels show that there was some degree of intermixing between these clusters, but this seems to have been confined to two of the cantonware vessels and one willow pattern plate, indicating that these, at least, derived from the earliest phase of occupation.

Even in the absence of any complete vessels or manufacturer's marks, the Hohi ceramic assemblage can tell us a great deal. The majority of the fragments are from table or teaware vessels, the only other identified vessel types being chamberpots. The absence of vessels associated with food preparation and storage suggests that neither structure in this area had a kitchen. Instead these were places where food was served, presumably after preparation in the kitchen of one of the nearby houses. Both the school house and structure 2, or the activity area west of it, could have been used as places for communal meals.

The lower terrace (Area 2) contained relatively few ceramic sherds, but what it did contain was very similar to Assemblage 1. Within the material retrieved from the lower layers of the terrace fill (Assemblage 4) were fragments which matched vessels from Assemblage 1. This is evidence that the lower terrace was extended after the school house was built and had been in use long enough for ceramic vessels to be broken and scattered downslope, presumably onto an area subsequently mined for terrace construction fill. Material gathered from the upper layers of Area 2 (Assemblages 2 and 3) is very similar to that from Area 1, with no examples of notably later ceramics, so the construction, or extension, of the lower terrace and subsequent activity there all seem to have happened in a relatively short period of time.

Within the Hohi ceramic assemblage there is a certain amount of variation in value. A large proportion of the vessels are examples of the most affordable wares at the time, especially the creamware and shell-edged ware (Miller 1980:3–4). Contrasted with this is the selection of transfer-printed vessels. This style of decoration was some of the most expensive earthenware at the time and the types of designs and motifs present are characteristic of the time at which Hohi was occupied, suggesting that these vessels were new and very fashionable when they were brought to the settlement. Also present are some very high value pieces of teaware. A small fragment from a transfer-printed porcelain vessel that is likely to have been a tea cup and part of the base of a black basalt teapot were found, both wares being very expensive. This pattern of spending more on teaware than tableware has been noted elsewhere (Miller 1991:5). It seems likely that there were

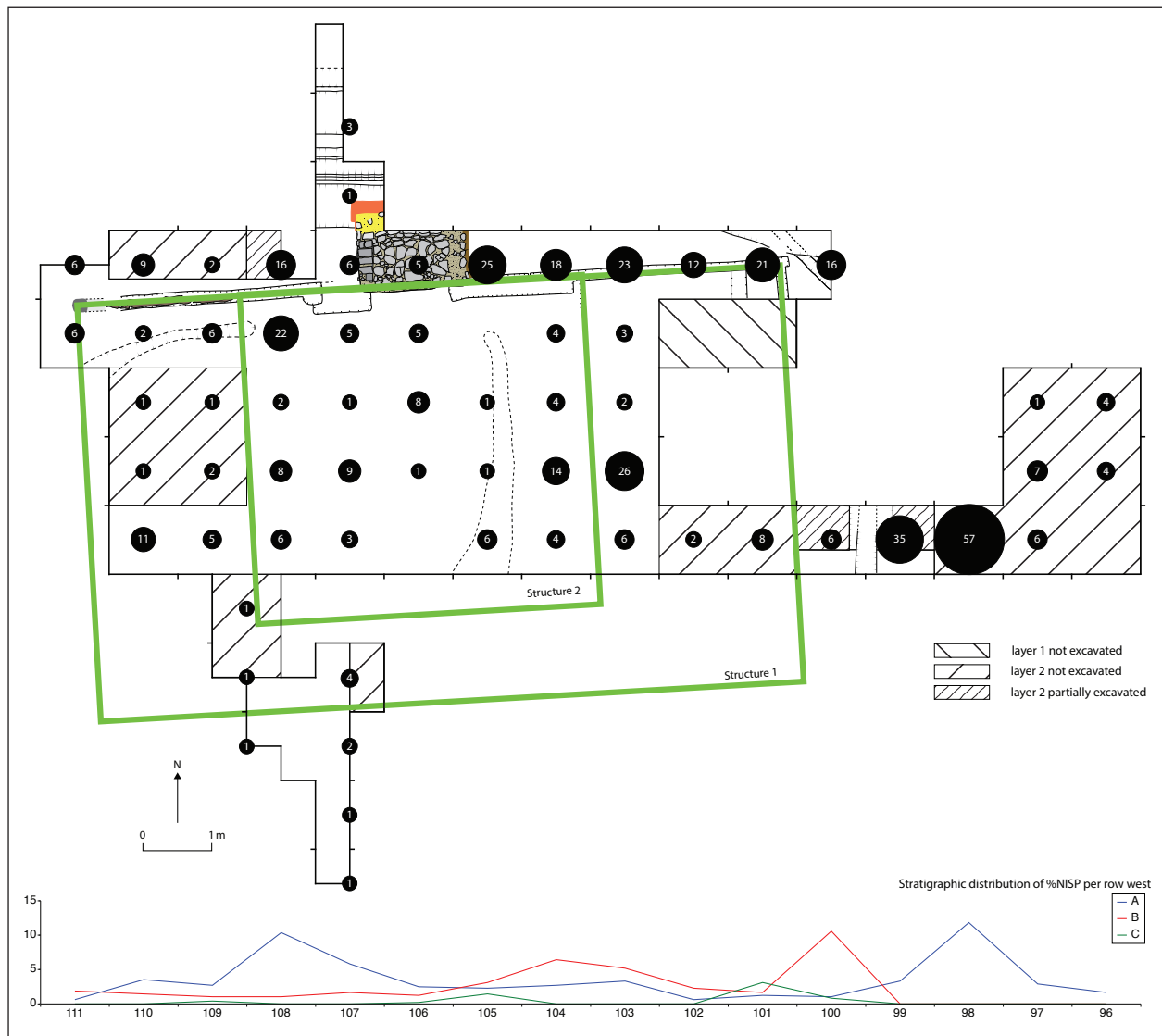


Figure 74. Distribution of ceramic vessels in Area 1. Circles on the plan represent NISP per m²; the graph shows %NISP by stratigraphic assemblage

other valuable items present on the site, but these were probably highly prized and taken away when families left Hohi rather than abandoned and incorporated into the archaeological record.

It is also possible to see interactions between Hohi and at least one other contemporary New Zealand site in the ceramic assemblage, as well as links with Australia and Britain. Britain was undoubtedly the place of manufacture for the virtually all ceramics at the site. Many of these are likely to have arrived as part of the household goods of the mission families, and the presence of British landscape scenes on several of the under-glaze transfer printed vessels must have provided them with reminders of home. Further supplies of ceramics almost certainly arrived via Australia, and this is the most likely source for the Chinese made Canton ware porcelain. The presence of this ware at a contemporary site on Stewart Island hints at the interactions taking place between some of the very first permanent European settlers of New Zealand. Two almost identical plates were found during the 1994 excavations

of William Cook's shipbuilding site at Port Pegasus, Stewart Island, but were incorrectly identified as earthenware (McGovern-Wilson & Bristow 1994; Woods 2011: 29–30). It is even possible that these are from the same set as the Hohi plates, as the people responsible for that settlement are known to have stopped in the Bay of Islands while Hohi was occupied (1826), William Cook himself having been in the area since 1823.

4.9 Glass Vessels

The Hohi glass vessel assemblage was, like the other artefact assemblages, extremely fragmented. A total of 895 fragments of glass represented at least 35 vessels (Table 23). More than 90% of the glass fragments were from Assemblage 1, and none were recovered from Assemblage 4.

Glass was examined and recorded following standard Otago procedure (Smith 2004), with fragments sorted by colour and portion of vessel, and minimum numbers calculated from the most common repeating element. For

Table 23. *Glass vessel assemblages*

Colour	Weight (g)	NISP	Minimum Numbers of Vessels					
			bottle	jar	lantern	vase	unident.	total
Assemblage 1								
olive green	1680.33	470	6	–	–	–	–	6
dark green	567.61	160	5	–	–	–	–	5
clear	240.37	81	3	–	1	1	–	5
light green	123.02	88	1	1	–	–	–	2
aqua green	45.86	18	4	–	–	–	–	4
emerald green	2.90	3	–	–	–	–	2	2
opaque white	0.27	1	–	–	–	–	1	1
Total	2693.71	821	19	1	1	1	3	25
Assemblage 2								
olive green	99.45	42	2	–	–	–	–	2
dark green	0.54	4	2	–	–	–	–	2
aqua blue	1.12	1	1	–	–	–	–	1
clear	0.13	1	–	–	1	–	–	1
Total	131.19	48	5	–	1	–	–	6
Assemblage 3								
olive green	69.05	14	1	–	–	–	–	1
dark green	8.07	10	1	–	–	–	–	1
clear	3.70	2	–	–	1	–	1	2
Total	80.82	26	2	–	1	–	1	4
Total Site	2905.72	895	26	1	3	1	4	35

bottles this was almost always base fragments, although several were represented solely by body shards. Rim and base diameter was calculated from fragments using the same simple formula as with the ceramics. As it was not possible to positively identify any vessel types, colour was used as the main descriptive category.

Colour presents several difficulties, especially in distinguishing between shades of olive green. Glass of this colour ranges from light through to very dark olive green, the latter often referred to as 'black', depending fundamentally on the thickness of the glass (Lindsey 2012), with individual bottles often appearing olive green in the body but very dark where glass was thickest at the base and lip (e.g. Figure 75). Because almost all of the olive green glass from Hohi was in tiny pieces, it was decided not to distinguish between dark and light shades. Olive green glass, in its various shades, was produced in huge quantities at the start of the 19th Century, with many different bottle forms and contents (Jones 2010:95), so it is unlikely much useful information is being passed over by grouping all the fragments of this colour glass together in this case.

4.9.1 Assemblage 1

This assemblage contains the vast majority of the glass fragments and almost three quarters of overall MNV. Olive was by far the most common glass colour, making up over half the assemblage (Table 23). Various other shades of green were also present in smaller quantities (dark, light, aqua and emerald). The clear glass fragments were mostly

lantern glass and there is one shard of an opaque white colour.

Olive

Olive green was the dominant glass colour in this assemblage. At least six bottles of this colour were represented by base fragments. Four top fragments were also present, including the most complete specimen recovered during the excavation (Figure 75).

At least two of the olive green bottle bases had rounded heels and domed base profiles, but rim diameters were not able to be measured for any of these vessels. Rounded heels were identified on two other bases, one with a flat base and the other with a parabolic profile and a diameter of 99 mm. One fragment from an abrupt heeled and another from a bulged heeled bottle with a base diameter of about 80mm were also found.

Two out of the four top fragments had a curved down top profile with a skirt which were applied in one piece (Figure 76a, b). Neither was complete enough to allow any rim diameter calculations but one had enough present to identify a bulged-in bore profile and a convex neck shape. The other two had convex necks and curved-down finishes which were applied in two pieces, one with a skirt and the other with a square band (Figure 76c). The skirted example has a straight bore while the other has a bulged out profile.



Figure 75. This olive green bottle from Assemblage 1, was the most complete vessel found at Hohi

These bottles were probably, initially at least, filled with alcohol. Commonly known as 'black beer' bottles because of the darkness of the glass, they were able to protect the beer or other alcoholic beverage inside from being spoiled by sunlight (Lindsey 2012). In New Zealand, far away from the British glass factories, these bottles were valuable containers and reused multiple times, not necessarily with the originally intended contents.

Dark Green

This colour accounted for around a fifth of the glass from Assemblage 1. At least five bottles are represented by base fragments and four tops were also found.

None of the base portions were complete enough to calculate the diameter but it is possible to make some comments on form. At least two bottles with rounded heels were identified, one of which has part of the kick-up present and has a domed base profile. Abrupt heels were found on another two bottles. One vessel is square or rectangular in shape and has a dished and curved base profile, while the other is round with a flat base. The last bottle identified is represented by both top and base fragments. It has a bulged heel shape and a curved down skirt type top profile (Figure 76d), which was applied in one piece. The rim diameter for this vessel was able to be calculated (about 36 mm).

Three other top fragments were also identified. All had the same profile shape as the top previously mentioned (Figure 76e–g) and all have rim diameters of around 33mm. Two had a flared and the other a straight bore profile. One of the flared bore tops had enough of the neck present to identify it as convex, while the other showed evidence of manufacture in the form of wrench marks. These marks are caused by the twisting action of removing the bottle from the blow pipe.

Light Green

Whilst 88 fragments (123.02g) of light green coloured glass were found, it is only possible to count two vessels as there are almost no diagnostic portions. A jar is definitely represented by both a base portion and part of the top, while some of the thicker body shards presumably belong to a more substantial vessel.

The jar base has a rounded heel and a diameter of around 60mm while the top, which seems to have a similar diameter, although not enough is present to make accurate calculations, has a flanged profile.

Aqua Green

At least four aqua green vessels are present in this assemblage, three rounded bottles represented by base portions

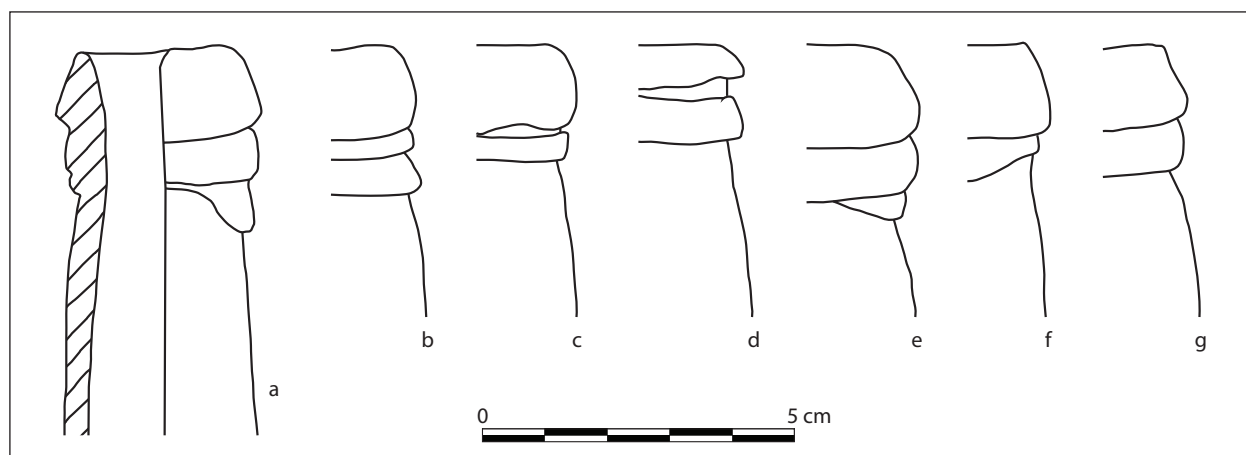


Figure 76. Bottle top profiles from Assemblage 1: a–c, olive green; d–g, dark green

and one square bottle just by body fragments.

Two of the bottle bases are very similar in form, having a rounded heel and blow pipe pontil marks present, but the slightly larger of the two (with a rim diameter of around 60 mm) has a domed base profile while the smaller (40 mm) bottle's profile is bell-shaped. The other base is not complete enough to make any comments on other than it has a rounded heel.

Emerald Green

Three fragments of emerald green glass were found in Assemblage 1. One is a darker shade than the other two so it appears there are two vessels represented. It seems from the rim of the lighter green vessel, which has a straight profile and rounded edge, that it is some sort of dish or bowl. Not enough of the rim is present to calculate the rim diameter.

Clear

Colourless glass makes up about 9% of this assemblage by weight (Table 23). At least three types of vessel are represented by this colour: three bottles, at least one lantern and a vase.

Three fragments from the bases of three different round clear bottles were found, one complete and the other two by small fragments. The complete base has a diameter of 67mm, with an abrupt heel and a dished and curved base profile. No seams are visible. This base has some flake scarring and five small flakes were found in the immediate vicinity, but it does not appear to be intentional flaking. The other two base fragments are not complete enough to calculate diameter but appear to be from smaller bottles. Only the heel shapes were able to be identified: one rounded and the other abrupt.

Fifty eight pieces of lantern glass are included here. This glass is relatively thin and rim fragments have a straight profile and rounded edge. Very little valuable information

can be gathered from these fragments as they are very small and it is not possible to distinguish between individual lanterns.

Also present is the base of what appears to be a decorative vase. It has a base diameter of about 70mm and moulded decoration consisting of vertical radial ridges (Figure 77).

Opaque White

One fragment of an opaque white glass was also found. It has a dimpled surface and poor state of preservation. It is probably not Milk Glass, as this was not widely used until the late 19th Century (Lindsey 2012), so the opaque appearance may be caused by taphonomic processes.

4.9.2 Assemblage 2

This assemblage contains a much more restricted array of glass in terms of quantity, colour and vessel form (Table 23).

Olive Green

Again, this was the most common glass colour. Diagnostic portions were scarce, with only one base fragment which not complete enough to indicate anything other than that

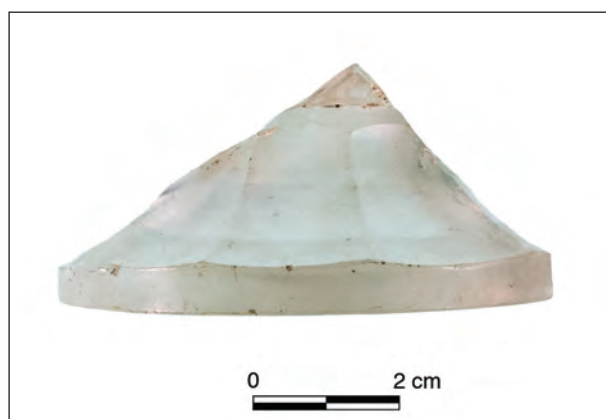


Figure 77. Glass vase from Assemblage 1

it was from a round bodied bottle. Fragments of body glass indicate that a square or rectangular sectioned bottle was also present.

Dark Green

None of the dark green bottle glass fragments were from diagnostic portions, but there were both round body and square/rectangular shards, suggesting at least two vessels are represented. A neck fragment is also present, with a straight profile and wrench marks visible.

Aqua Blue

The only shard of aqua blue vessel glass at the site was found in Assemblage 2. It is a very pale shade of blue, almost colourless and appears to be from the shoulder of a small bottle or other vessel.

Clear

The one piece of clear glass from this assemblage is a fragment from a lantern.

4.9.3 Assemblage 3

Twenty-six fragments of vessel glass were found at this level (Table 23). Olive green was the most common colour, and all 14 shards could have derived from a single round bodied bottle. The only diagnostic portion of this was part of its top which had an applied one piece finish, with a curved down and skirted profile. Similarly, all ten fragment of dark green glass may have been from a single round bodied bottle. The two clear glass fragments included one fragment of lantern glass, and another for which vessel form could not be identified.

4.9.4 Flaked Glass

Just over 7% of the bottle glass fragments appeared to have been deliberately flaked, presumably with the intention of using the removed flakes as tools (Table 24, Figure 78a). Another 3% exhibited characteristics of intentionally detached flakes, such as a bulb of percussion, striking platform, stress lines (Figure 78 b, c).

Trampling or other post-depositional disturbance causing bottle fragments to shatter in a flake-like way is one potential explanation for the presence of these items, especially for material found within and adjacent to the pebble paving that was laid around the structures in Area 1. Allen (2008: 87) highlights the importance of recognising 'non-artefacts' such as these, and one almost certain example was encountered at Hohi. A clear bottle base with flake scars and five small flakes lying around it were found in pebbles just outside the northeast corner of the school house. The flakes all appear uneven, and the fact that they were all found alongside the base adds weight to the argument that they were dislodged when the base was already in or on the ground.

For the remainder of the items, deliberate flaking seems a more likely explanation. This has been documented at early colonial sites elsewhere, such as Port Essington in Australia, where the indigenous communities used glass bottle bases as both cores and tools in their own right (Allen 2008: 79), but has seldom been reported from New Zealand. At Hohi it is notable that amongst both the olive and dark green items, there are significantly greater numbers of items bearing flake scars than there are flakes, suggesting that flakes were being removed from the area. The concentration of flaking on these colours may have been influenced by their similarity to obsidian. Only one of the flaked glass items shows evidence of deliberate retouching (Figure 78a), which parallels the situation with obsidian artefacts in New Zealand.

4.9.5 Discussion

The Hohi glass vessels were extremely fragmented, limiting our ability to recover some of the information often gathered from such assemblages. Only a small number of vessels were identified, mostly bottles, and none of these could be attributed to specific types, although most were of the olive green colour typical of alcohol bottles in the early decades of the 19th century. The few diagnostic pieces do show that all the identifiable bottles were free-blown.

Table 24. *Flaked glass (NISP)*

Glass colour	Items	Assemblage			Total
		1	2	3	
olive green	with flake scars	30	5	3	38
	flakes	4	1	–	5
dark green	with flake scars	20	–	2	22
	flakes	8	1	2	11
light green	with flake scars	2	–	–	2
	flakes	6	–	–	6
clear	with flake scars	4	–	–	4
	flakes	5	–	–	5
Total	with flake scars	56	5	5	66
	flakes	23	2	2	27

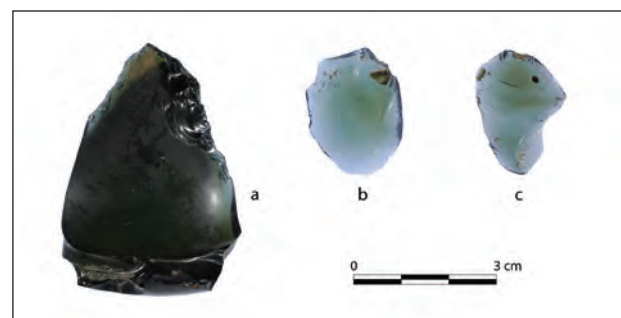


Figure 78. Flaked bottle glass
a – bottle base with flake scars; b & c – flakes

None had the distinctive seams of mould manufacture, two had pontil marks and all the finishes had clearly been applied. This is consistent with the known period of occupation at Hohi.

Three factors may have contributed to the relatively low bottle count. Glass containers are likely to have been valuable commodities in the Bay of Islands when Hohi was occupied and are likely to have been curated and reused. Middleton (2005a:69) suggests that John and Hannah King took a supply of bottles with them when they relocated from Hohi to Te Puna, thereby removing them from the record at this site. Second, as already indicated by ceramic vessels, neither excavated area appears to have been a location used for food preparation, which might indicate that bottles and other glass vessels were generally kept elsewhere. Thirdly, there are indications of systematic removal of diagnostic bottle parts, through Maori use of thick glass fragments as a substitute for stone in flake pro-

duction. Some caution is needed in measuring the extent of this third factor, however, as the almost perfect flaking qualities of the glass, which presumably made it attractive to Maori, also make it incredibly difficult to distinguish between deliberate flaking and accidental damage caused by trampling or other taphonomic processes.

Trampling is also likely to have moved glass fragments spatially, especially when redeposited in pebble paths, kicked under buildings and washed into drains. Nonetheless the distribution shows major concentrations in the topsoil above the pavement west of structure 2, and in the multiple layers of paving and drains along the northern wall of structure (Figure 79), suggesting that the former may derive from the second phase of occupation, while the latter accumulated while the school building was standing. There are no obvious differences in the contents of these two clusters, not unexpectedly given their close proximity in time.

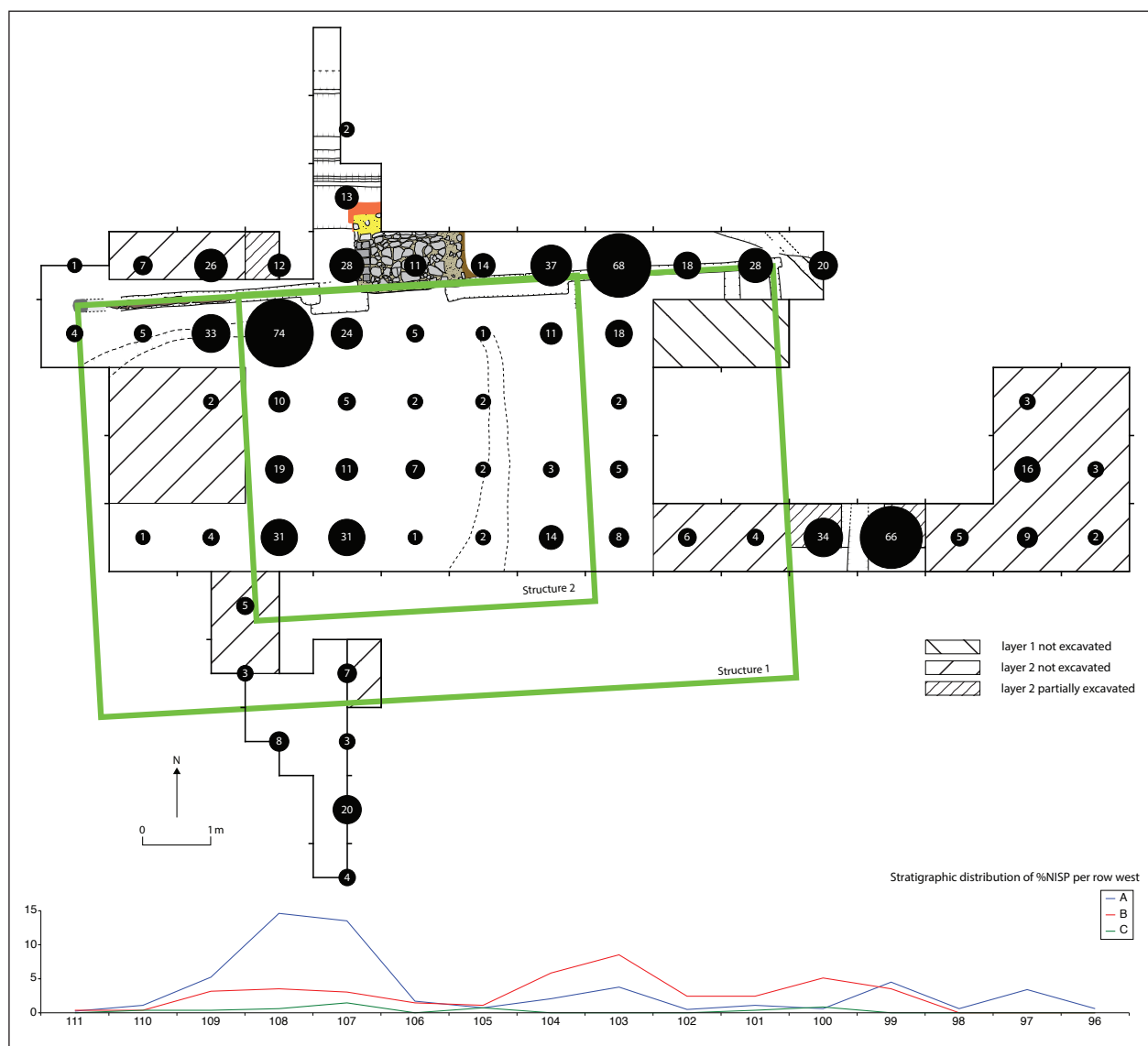


Figure 79. Distribution of glass vessel fragments in Area 1. Circles on the plan represent NISP per m²; the graph shows % NISP by stratigraphic assemblage

4.10 Munitions

Evidence of armaments at the site consist of 4 stone and 12 metal items, all from Assemblage 1 (Table 25).

Table 25. *Munitions, Assemblage 1*

Item	weight (g)	NISP	MN
gunflints	28.73	4	4
ammunition	214.76	12	12
Total	243.49	16	16

4.10.1 Assemblage 1

Gunflints

Gunflints were a key component in flintlock weapons until the second half of the nineteenth century, when first the percussion cap, then cartridge-based shot became more common. They were a crucial part of the sparking mechanism necessary to ignite the gunpowder that fired the charge, but wore out with use, requiring replacement. The form of gunflints became more standardised through the 18th and 19th centuries, with varieties made to fit flintlock weapons ranging from small arms, such as pistols, to carbines and muskets. Gunflints in the Hohi assemblages were identified and described using information from both New Zealand and international sources (Allen 2008; Best 2002; Best 1995; Kenmotsu 1990; Lotbiniere 1984).

There are two main methods for the manufacture of gunflints; the creation of spalls, or blades. The former involved the removal of 'individual flakes (spalls) from flint nodules or prepared cores through direct percussion' (Kenmotsu 1990:98). These flints are known as gunspalls, identifiable from their distinctive wedge shape, and were relatively common until the latter decades of the eighteenth century (Best 2002; Kenmotsu 1990). This form was largely replaced by blade manufactured gunflints from the 1780s onwards, as blade technology became more widely used. This method involved the creation of long blades which were then sectioned to produce individual gunflints, allowing for a much higher rate of production than the gunspall method, which was fairly time and labour intensive. All of the gunflints found at Hohi are blade manufactured gunflints, although one has a prominent bulb of percussion and wedge, rather than prismatic, shape and was initially identified as a gunspall. This was later revised, as the form is closer to blade manufactured gunflints than to that of a gunspall, particularly those which are made from the proximal end of a blade, thus including the bulb of percussion (Kenmotsu 1990).

Four gunflints were recovered from Hohi, all in Assemblage 1. Two of these were made of a dark grey, almost black, stone which, when coupled with their square, flat top shape, indicates that they were most likely Brandon flints (Figure 80a, b), which became increasingly common after 1790 (Kenmotsu 1990). Brandon flints are among the most

well-known 19th century English flints, manufactured from a 'very dark, nearly black, translucent fine grained flint' mined from quarries in Suffolk, England (Kenmotsu 1990:95). The two found at Hohi are what is known as platform, prismatic or blade flints, a form usually considered standard for items of English origin (Clarke, cited in Allen 2008; Lotbiniere 1984). There is, however, variation within the type. One has a rectangular platform (also called the 'back'), contributing to a shallower slope on the heel and working/firing edge (Figure 80a), while the other has a broader, square, platform and steeper slopes, making it difficult to differentiate between the heel, sides and working/firing edge (Figure 80b). This may have also impacted the effectiveness of the gunflint while in use (Kenmotsu 1990).

Both gunflints have demicones (bulbs of percussion) (Allen 2008; Lotbiniere 1984) visible on opposing sides of the platform and show evidence of use, although this is more prominent on the rectangular platformed flint. Flake scars are visible on the working edge of the flint, which has been chipped away to form a curved rather than straight edge. There is also some scarring on the underside of the heel, although it is unknown whether this is a result of the flint being turned and used upside down or simply due to post-depositional damage. Kenmotsu notes that for best results, gunflints ought to have a straight, uniform, edge so that the force from the frizzen is distributed evenly, allowing for a greater quantity of sparks. Historically, the average number of uses for a single gunflint was twenty shots, suggesting a high discard rate of flints with worn working edges, such as this one (Kenmotsu 1990). The evidence of usewear on the square platformed flint, on the other hand, is less prominent, but there is a relative density of very small flake scars on both sides of the working edge, suggesting that it was used, albeit less than the other. The ventral surface has also been flaked, and one corner of the flake has also been struck off, but this is likely to have occurred after deposition.

The third gunflint identified was made from a lighter coloured stone and is relatively square in shape (as opposed to the rounded wedge shape of a gunspall), has no platform, only a single dorsal ridge, and a clear bulb of percussion on the ventral surface (Figure 80c). Very little usewear was visible, with only a few small flake scars on the sides and some very small microflaking on the edge of the heel and working surface. The latter is more likely to have occurred post-deposition than as a result of use or retouching. There is some confusion in published discussions over the origins of this form as French or English. It is commonly associated with French manufacture in archaeological literature from New Zealand and Australia (Allen 2008; Best 2002), but is included in Lotbiniere's (1984) four types of English gunflint under the label 'the common gunflint' (Lotbiniere 1984: 207).

Both the Brandon flints and the common gunflint are similar in size (respectively $31.37 \times 28.14 \times 8.51$ mm; $27.7 \times 26.08 \times 10.62$ mm; $26.94 \times 26.46 \times 8.11$ mm), and closest to the size parameters identified for muskets (*ca.* 33

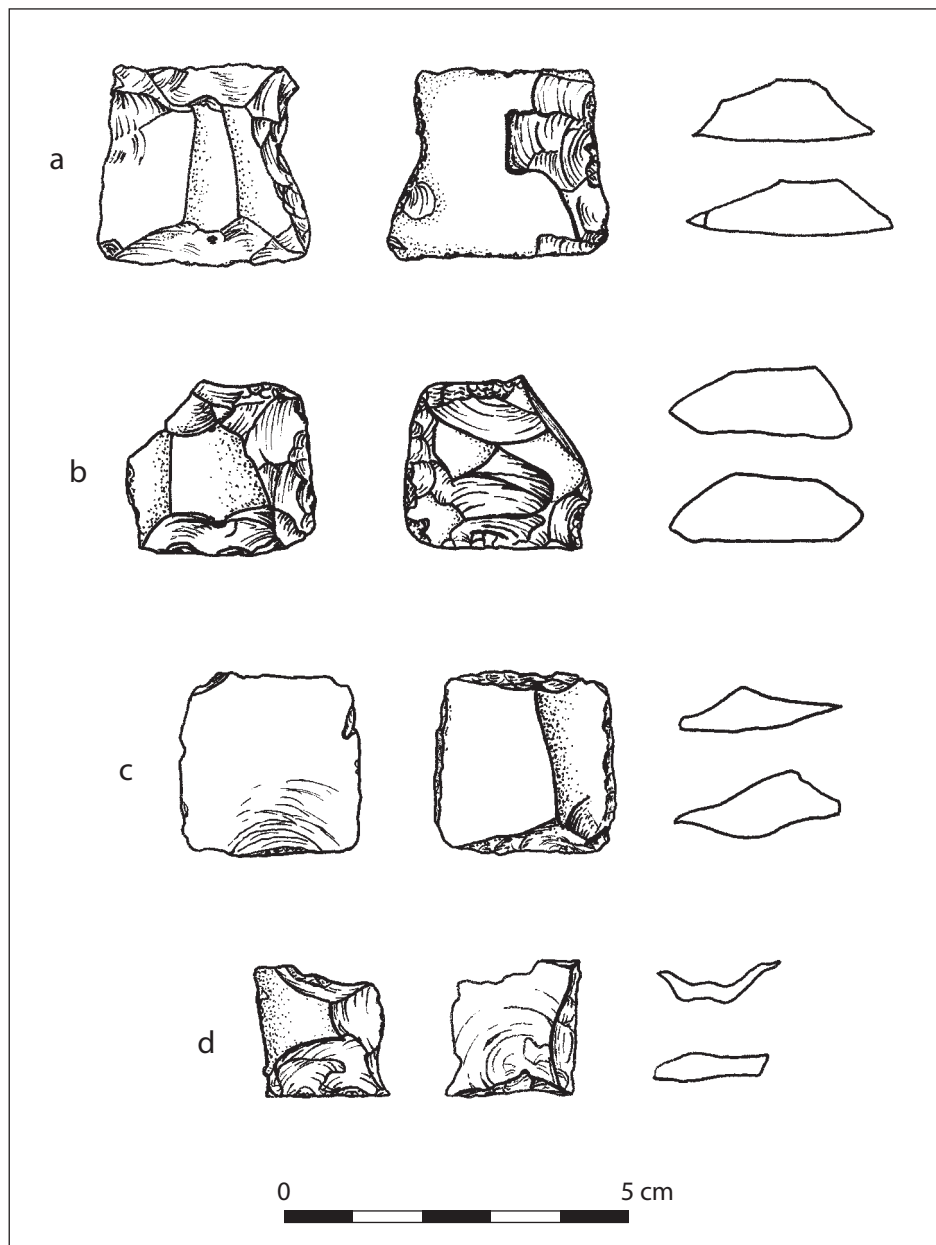


Figure 80. Gunflints

$\times 27 \times 12\text{--}13$ mm) and carbines (*ca.* $30.5 \times 25 \times 6\text{--}7$ mm), although these are guidelines rather than absolutes (Lotbiniere 1984). Ammunition which may have been used for both of these weapons types was also found in Assemblage 1.

A fourth stone artefact was classified as a gunflint, albeit less definitively than the other three (Figure 80d). Although made of a similar stone to the Brandon flints, this item is smaller and closer in shape to the common gunflint. There is a prominent positive bulb of percussion on the ventral surface, and a shallow, but crude, dorsal ridge. Some flake scars are visible on the dorsal surface, but not on what would be normally be identified as the working edge. The smaller size indicates that this may have been used in a smaller weapon, such as pistol or revolver, which used the same flintlock mechanism as the larger guns. Lotbiniere (1984) suggests that the optimal size for a pocket

pistol gunflint would be $19 \times 16.5 \times 5$ mm. The Hohi example measures $18.36 \times 18.24 \times 5.93$ mm.

Ammunition

Nine lead musket balls and two pieces of what appears to be lead shot were recovered during excavation at Hohi, all from Assemblage 1 (Figure 81). Four of these are *ca.* 18 mm in diameter which identifies them as shot for a 'Brown Bess' musket (Sivilich 1996:103). The term 'Brown Bess' covers several styles of 18th to early 19th century government issue muskets including the British Long Land pattern (standard issue from 1722–1740), Short Land pattern (1740–1797) and India pattern (1790–1839). At this time the British military attempted to standardise their arms by producing a template for arms makers to use, hence the term 'pattern' (Guttman 2011: 23). As they all used the



Figure 81. Musket balls and lead shot

same calibre of musket ball, it is not possible to tell which exact model the Hohi balls are from, but the India pattern seems the most likely as it fits in with the date of the site. The same calibre balls were found at Rewa's Pa in Russell (Best 2002:76) and the one musket ball found at Te Puna appears to be a similar size, although the exact measurements are not given (Middleton 2005a).

Three of the other musket balls measure *ca.* 16mm in diameter which is the size usually used by smaller arms including French Charleville muskets, British Fusil and Dragoon carbines (Sivilich 1996:103). The remaining two are somewhat smaller, measuring between *ca.* 12 and 13 mm. It is not known what type of gun these would have been used for. The two pieces of lead shot were each *ca.* 4 mm across.

Several are not perfectly round but have 'tails' which are remnants of the manufacture process (e.g. Figure 81d). Seams from casting moulds were also visible on four of the projectiles. Most show reasonable amounts of corrosion which makes identifying whether they were fired or not difficult, but some interesting surface features are notable. One has multiple parallel grooves running around the circumference (Figure 81e), but is unclear whether this is evidence of firing or not. A few have some degree of surface pitting, but this could be caused by them impacting each other during storage.

The single brass cartridge case found in the topsoil clearly derives from post-occupation activity at the site.

4.10.2 Discussion

The Hohi munitions were nearly all found in the topsoil, with only 3 of the items below this, on the top of the clay surface under structures 1 and 2. Almost half the items were found along the eastern side of Structure 2, with the remainder distributed around or just under its western

side, making it likely that they derive from the second phase of activity in Area 1 (Figure 82). The gunflints, musket balls and lead shot are all in forms common for the period of occupation at Hohi. The gunflints are most likely to be of English manufacture, although an origin in France cannot be ruled out.

Gunflints occur quite regularly at sites from the first half of the 19th century. While only one was identified at Te Puna (Middleton 2005a), nine were recovered from the Rewa's Pa excavations at Kororareka (Best 2002), eight of which were identified as English and one as French (closer in form to a gunspall than the possible French example from Hohi). Port Essington in Australia, at a slightly later time period (1838–1849) yielded five gunflints, one of which is very similar in form to the square platformed flint found at Hohi (Allen 2008). The four gunflints found at the much earlier site of Captain Wilson's 1783 camp on Ulong Island, Palau (Clark 2005), are much closer in form to examples of gunspalls than anything found at Hohi thirty years later, suggesting that Kenmotsu's (1990) North American chronology of flint manufacture has merit in an Antipodean context as well.

The nine musket balls at Hohi is considerably more than the single example recovered from Te Puna (Middleton 2008:173), and equals that from Port Essington in Australia, a military site (Allen 2008:98). The size range of the Hohi specimens supports historical accounts of both muskets and smaller arms including a pistol at the site (McLennan & McLennan 2012:16, 41).

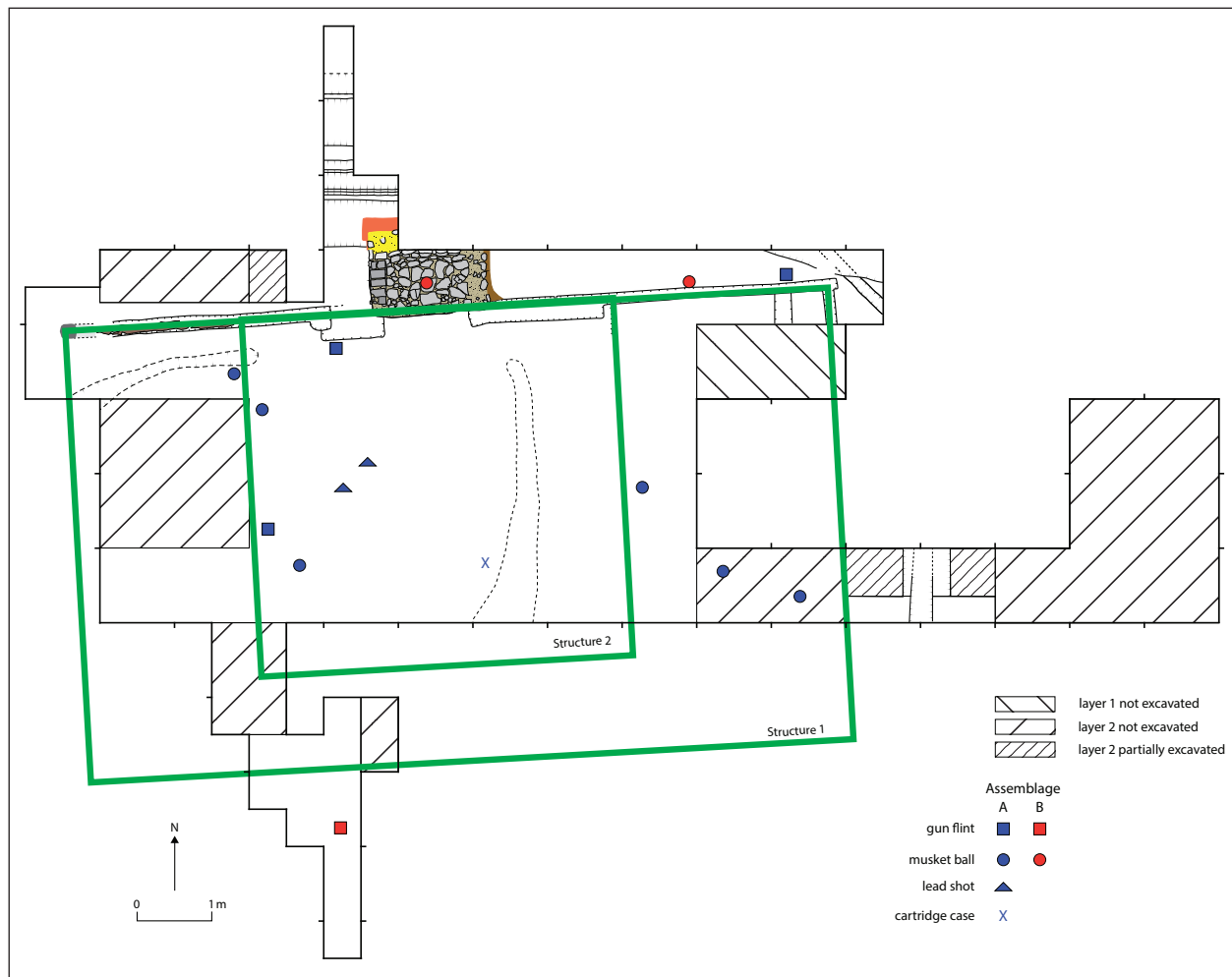


Figure 82. Distribution of munitions in Area 1

4.11 Tools, Hardware and Miscellaneous Metal Items

Metal items other than fasteners, personal items and munitions were sorted by material and form and identified where possible to artefact type, or as items of uncertain function, if it was considered that an identification might be possible. Other materials were categorised as sheet,

strip or 'other' using criteria set out by Watson (1998). With many of the ferrous items heavily accreted positive identification was frequently impossible.

4.11.1 Assemblage 1

The majority of metal items were recovered from Assemblage 1 (Table 26).

Table 26. Tools, hardware and miscellaneous metal in Assemblage 1

	ferrous		copper alloy		cu/fe		lead		?		Total
	Wt	NISP	Wt	NISP	Wt	NISP	Wt	NISP	Wt	NISP	MN
chisel	368.6	2	–	–	–	–	–	–	–	–	1
hinge	148.8	2	–	–	–	–	–	–	–	–	2
key	90.6	2	–	–	–	–	–	–	–	–	2
cutlery	25.8	4	–	–	–	–	–	–	–	–	2
pot?	103.1	2	–	–	–	–	–	–	–	–	1
uncertain	203.2	6	13.7	34	7.3	1	–	–	0.3	1	8
sheet	1524.5	55	109.5	7	–	–	–	–	–	–	~
strip	272.1	31	–	–	–	–	–	–	–	–	~
other	753.6	155	–	–	–	–	1.7	2	–	–	~
Total	3490.2	259	123.2	41	7.3	1	1.7	2	0.3	1	16+

Chisel

A large chisel measuring 185 mm in length was found in the topsoil beneath Structures 1 and 2 (Figure 83). The blade and shaft are one piece of iron, the top is flattened where it would be struck, and the cutting blade is 26 mm wide and fairly blunt. Together these characteristics indicate that this is likely to have been a cold chisel, a tool used by a blacksmith to cut cold metal, rather than a wood working chisel. As noted in Chapter 2, several blacksmith's workshops operated at the Hohi mission station.



Figure 83. Chisel

Hinge

Part of what appears to be a butterfly hinge was found in the lower fill of the F3 drain east of the school. Only the cylinder and one side of the flat attachment pieces are present and the state of preservation is relatively poor (Figure 84). A second possible hinge fragment was found in the upper fill of F3.



Figure 84. Hinge

Keys

Two iron keys were found close to each other, one in and the other just above the pebble paving west of Structure 2. In each case only the shaft and teeth survive (Figure 85).



Figure 85. Keys

Possible cutlery and cooking pot

Three items that could possibly be fragments of cutlery were recovered. Two pieces found in the upper fill of the F3 drain are almost certainly from a small spoon. One appears to be the end of a handle *ca.* 13 mm in width (Figure 86a), while the other has a dish-shaped profile indicating that it is from the opposite end of a spoon (Figure 86b). The third item, found alongside the surviving wooden foundations in F5, is an iron fragment 52 mm in length and 15 mm wide with a triangular section, suggesting that it might be a knife blade (Figure 86c), although this identification is by no means certain. Two iron fragments with a curved profile suggesting that they might be from a cast-iron cooking pot (Figure 86d) were located in the topsoil east of Structure 2.

Objects of uncertain function

An object made of very thin copper alloy sheet which appeared to be wrapped around a wooden backing (Figure 87) was found in the upper layer of soil immediately west of the fireplace. It was not able to be removed from the ground without disintegrating, and we are uncertain as to what it had been. This also applies to a small piece of a shiny, silvery metal with a rolled edge (Figure 88) that was found on the clay surface beneath Structures 1 and 2.

Other objects include a semi-circular shaped piece of copper alloy with an iron backing; a circular iron disc, heavy with accretions; a wedge-shaped piece of iron with a nail hole, still containing a nail head; a curved piece that may be iron piping; and two 'hook-like' objects that may simply be bent nails.



Figure 86. Cutlery and cooking pot: a - handle; b - spoon; c - knife blade; d - fragment of iron pot



Figure 87. Copper alloy artefact in situ

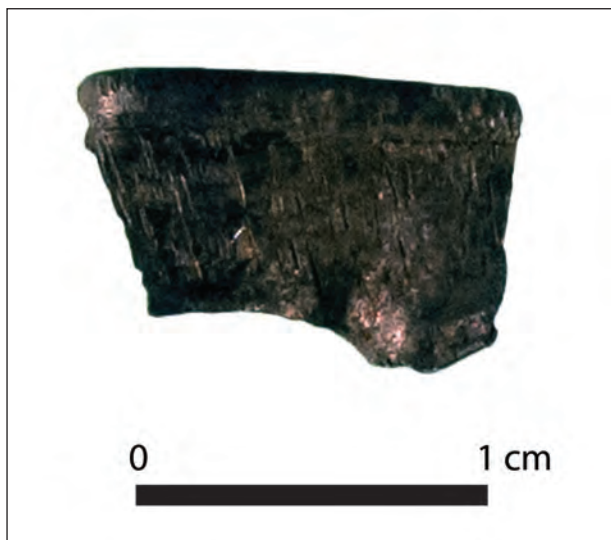


Figure 88. Silvery object

Sheet, Strip and Other Items

More than half of the weight of metal items in Assemblage 1 was made up of fragments of sheet or strip metal, predominantly iron. Three of these items were quite large pieces of cast iron 9–10 mm thick which were, at least in part, deliberately shaped (Figure 89a–c), although for what purpose is not clear. Remaining pieces of sheet iron were much smaller and thinner, averaging *ca.* 2.8 mm. Strips of iron were of similar thickness, and ranged from 22.5 up to 45 mm in width. At least some of the latter may have been fragments of hoop iron.

One piece of *ca.* 3.3 mm thick copper alloy sheet had been cut to form a rectangle 90 × 69 mm, and had nail holes at each corner (Figure 89d). This was presumably a patch, perhaps for a boat. The remaining pieces of copper sheet were much thinner, averaging 0.7mm, and one was curved with a small nail hole, suggesting that it had been attached to the rim of a wooden object.

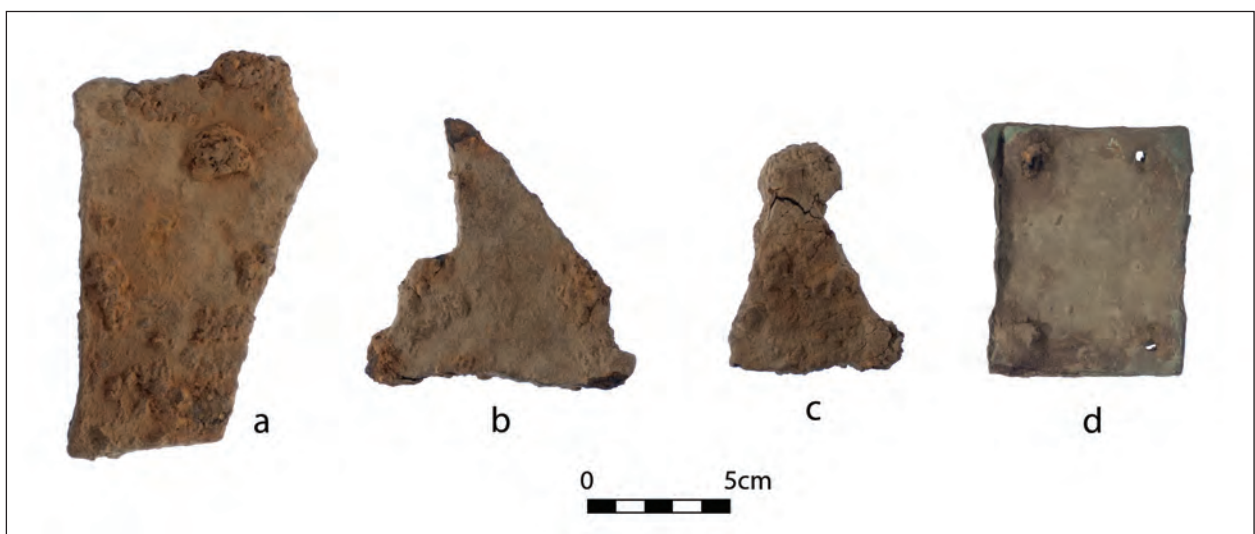


Figure 89. Unidentified metal objects.

The remaining metal items were predominantly amorphous lumps so heavy with accretions that it was impossible to tell what they had been. It is suspected that many were fragments of fasteners. In addition there were 2 'drip-like' fragments of lead that may be waste from manufacture of items such as musket balls or fishing weights.

4.11.2 Other Assemblages

Metal objects were relatively scarce in Area 2 (Table 27). Assemblage 2 contained a copper alloy strip bent into an oval shape, two fragments of *ca.* 3 mm thick sheet iron, another 'drip' of lead, along with amorphous lumps of iron. Assemblage 3 had two curved iron fragments similar to those in Assemblage 1 that were suggested to be from a cooking pot; two pieces of iron sheet, one *ca.* 10 mm and the other *ca.* 3 mm; and five lumps. Assemblage 4 contained just a few iron lumps.

4.11.3 Discussion

More than half of the miscellaneous metal items were found in the topsoil, with a cluster just west of the fireplace and another above the pebble paving east of structure 2 (Figure 90). Items in Assemblage B were concentrated just east of the fireplace. With many of these highly fragmented, and the majority unidentified it would be unwise to read too much into this pattern.

The chisel reflects the historically known blacksmithing activity at Hohi, and the hinge and keys are not unexpected in the vicinity of two structures. Perhaps the most significant observation that can be drawn from this suite of material is that the tentatively identified cooking pots provides the only items of food preparation equipment recovered during our excavations. These appear to have been 'goashore' pots, similar to more complete examples found at Te Puna (Middleton 2005c:115–118). The probable cutlery items are too incomplete to make comparisons meaningful.

4.12 Stone Tools

In addition to the slate pencils and tablets, gunflints and pounamu pendants discussed above, eleven stone artefacts were excavated at Hohi (Table 28). These included flakes, a core, and two large pieces of sandstone, one of which was recorded and left in situ. The artefacts were identified to material using the Otago Archaeological Laboratory reference collection, with pXRF sourcing of selected items, and examined under magnification for signs of manufacture, use-wear and retouching. Artefact form and description follows definitions outlined in Andrefsky (1998).

4.12.1 Assemblage 1

Stone artefacts in Area 1 consisted of a core, four flakes and two fragments of chert, and one obsidian flake. The chert items were all of a mottled grey colour that's found widely throughout Northland (Moore 1977). The core is multidirectional, with flakes removed from multiple striking platforms, and has cortex present on at least one surface (Figure 91a). So far as can be determined, the flake scars indicate both feathered and stepped flakes were removed. The four chert flakes had clear striking platforms, bulbs of percussion and a dorsal ridge, identifying them as conchoidal flakes (e.g. Figure 91b). They ranged from 8 to 21 mm in length, 8–17 mm in width, and 2–6 mm in thickness. None had been retouched.

The single obsidian flake in Area 1 (Figure 91c) had flake scars on both dorsal and ventral surfaces, obscuring the bulb of percussion and striking platform. The flake tapers at the distal end and is relatively small, measuring 24.2 × 21.4 × 8.9 mm. Sourcing by pXRF analysis indicates that this item derives from Kao (M. McCoy pers.com.).

A large piece of sandstone uncovered in layer 2 in squares N102/W100–101, bore three deeply incised grooves (Figure 92). Although this was located very close to the corner of the school building, it is much higher in the stratigraphic

Table 27. *Miscellaneous metal in other Assemblages*

	ferrous		copper alloy		lead		Total MN
	Wt	NISP	Wt	NISP	Wt	NISP	
Assemblage 2							
uncertain	–	–	0.4	1	–	–	1
sheet	19.5	7	–	–	–	–	~
other	53.5	22	–	–	1.2	1	~
Total	73.0	29	0.4	1	1.2	1	3+
Assemblage 3							
pot?	118.0	2	–	–	–	–	1
sheet	96.1	2	–	–	–	–	~
other	48.0	5	–	–	–	–	~
Total	262.1	9	–	–	–	–	1+
Assemblage 4							
other	90.3	10	–	–	–	–	~

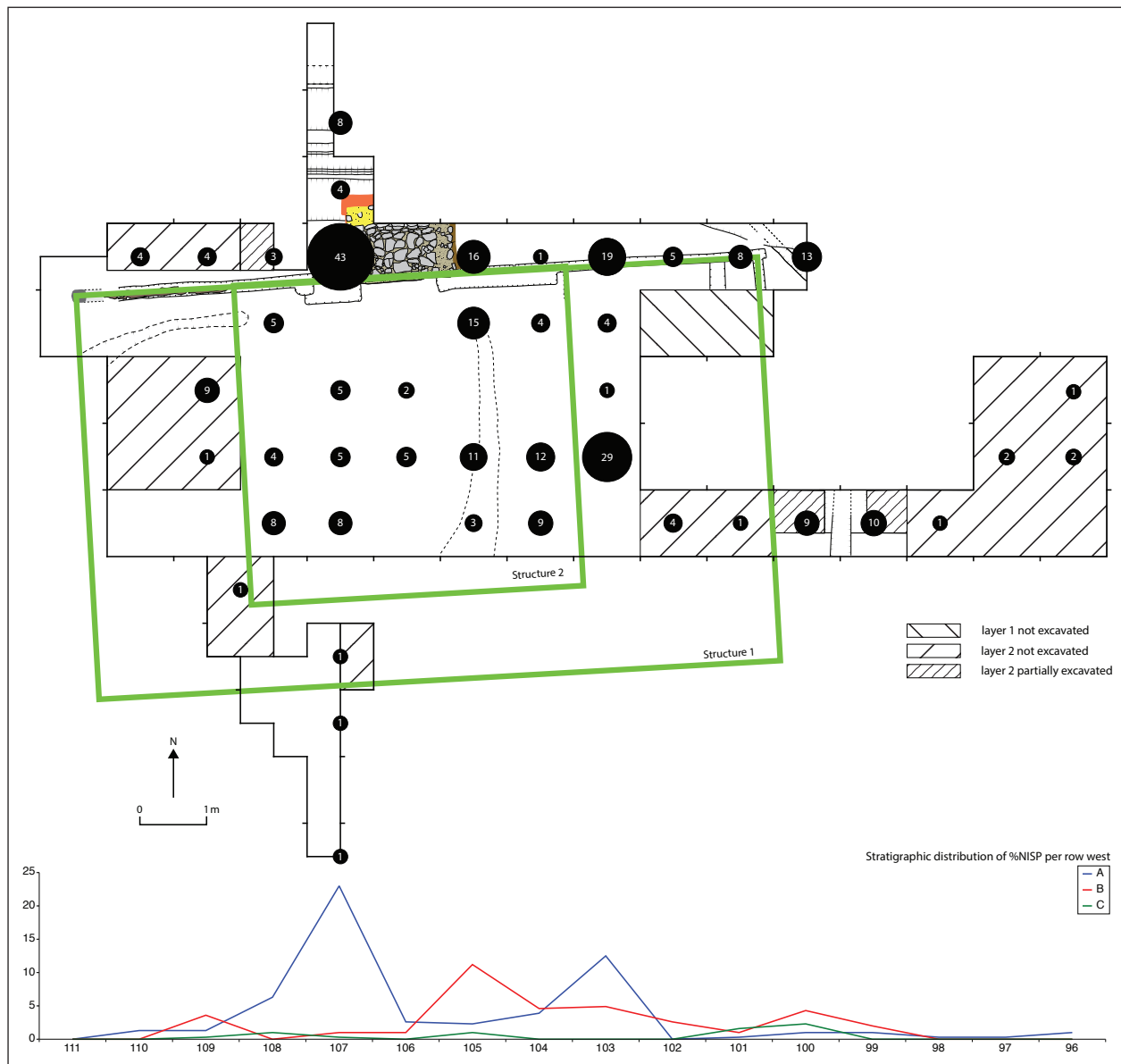


Figure 90. Distribution of Other Metal artefacts in Area 1. Circles on the plan represent NISP per m²; the graph shows % NISP by stratigraphic assemblage

profile than the buildings foundations, making it unlikely that there is any direct relationship.

Table 28. Stone Artefact Assemblages

	Weight (g)	NISP	MN
Assemblage 1			
chert core	407.67	1	1
chert flakes	2.99	4	4
chert fragments	1.43	2	2
obsidian flake	4.55	1	1
Total	416.64	8	8
Assemblage 2			
chert fragment	11.14	1	1
obsidian flake	3.69	1	1
sanstone item	1611.49	1	1
Total	1626.32	3	3

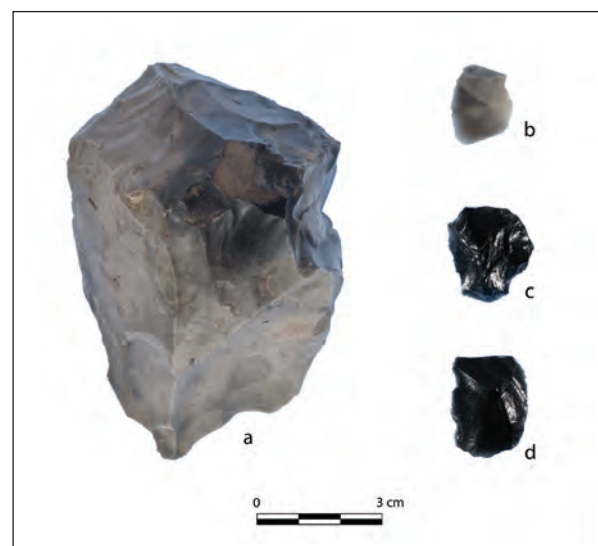


Figure 91. Stone tools



Figure 92. Incised sandstone in Area 1

4.12.2 Assemblage 2

Stone artefacts from Assemblage 2 consisted of an obsidian flake, a large piece of sandstone and a chert fragment. The obsidian flake was $26.1 \times 19.0 \times 8.9$ mm, with a clear bulb of percussion and striking platform (Figure 91d). Some flake scarring was visible on the dorsal surface, but far less than was evident on the obsidian found in Area 1. Sourcing by pXRF analysis indicates that this item derives from Kaero (M.McCoy pers.com.).

Unlike the sandstone found in Area 1, the piece from Area 2 displayed no marks, but was fairly flat, with a trapezoid shape. It was found in the drain at the northern boundary of the Area 2 excavation. The chert was similar in colour to the Area 1 specimens.

4.12.3 Discussion

The stone artefacts were all recovered from contexts that place them within the period of missionary occupation at Hoho. The flakes and core are typical of pre-European Maori technology, and demonstrate that this was practiced at the mission station. As noted in section 4.9.4 this same technology was extended to bottle glass.

4.13 Fauna and Flora

Three animal bones and three fruit stones were the only faunal and floral remains recovered during the excavation (Table 29).

Bone

Three poorly preserved pieces of bone weighing a total of 41.8 grams were recovered from the site, two in Assemblage

Table 29. Faunal and Floral Remains

	Weight (g)	NISP	MN
Assemblage 1			
bone – mammal ?sp	9.29	2	1
peach stone		1	1
Assemblage 2			
sheep R. radius	32.51	1	1
peach stone		1	1
Assemblage 4			
peach stone		1	1

blage 1 and one in Assemblage 2. Both fragments from Assemblage 1 were mammal bone, but could not be identified to species. One of these was burnt white and was found near the fireplace in Area 1, so may have spilled from there. The other was from the deposit of pebbles and clay that accumulated along the northern edge of Structures 1 and 2.

The specimen from Assemblage 2 was the right radius of a sheep (*Ovis aries*). This showed considerable weathering and was recovered from the topsoil of Area 2, so almost certainly post-dates missionary occupation of the site. Both sheep and cattle are known to have been pastured on the site during the 20th century.

Fruit Stones

Three pieces of fruit stones were found at the site and all appear to be peach (*Prunus persica*). Assemblage 1 contains a small fragment of a stone, found just outside the wall of the school building. In Area 2, another small piece was found in the stone-lined hearth (Assemblage 2). This fragment appears to have been burnt. Deeper in Area 2 (Assemblage 4) there was an almost complete stone, also blackened from burning.

The missionaries introduced a range of fruit trees to New Zealand, and peaches were reported growing at Hoho in 1824 (Sharp 1971:111). While the Bay of Islands is located within the range of latitude (30–45 degrees) in which *P. persica* can be cultivated (Bielenberg *et al.* 2009:225), winters there may not be cold enough to produce good harvests of fruit, which usually requires between 100 and 1000 hours below seven degrees (Hancock *et al.* 2008:265). The archaeological presence of peach stones provides clear demonstration that fruiting was achieved.

4.14 Plastic

Several scraps of plastic were recovered from the topsoil Area 1 and a plastic whistle was found while removing the turf from Area 2. These modern artefacts act as reminders that the site has continued to have been visited and used by people long after the missionaries moved on.

Chapter 5: Discussion and Conclusions

Hohi is a foundational site for the nation, analagous in status to Wairau Bar as the best known major settlement of first-generation settlers in each of the two main waves of migration that have shaped New Zealand. Unlike Wairau Bar, Hohi has been unknown archaeologically until now. It also operated on a frontier of cultural interaction, a challenge not faced by Maori first settlers. Our excavations located the school, a key locus for these interactions within the mission.

Area 1 disclosed compelling evidence of the first of two schools built on the site. The high concentration of slate pencils and writing tablets found around and under the earliest structure there make it clear that this was a school, and it is similar, although not identical to the reported dimensions of the building that opened in August 1816. We have been able to deduce a reasonably tight historical timeline for this structure. It operated as a school from its opening until December 1818, then again from September 1823 for about five months. In between it was used as the mission store for a year, until the main body of the mission shifted to Kerikeri at the end of 1818, then left in disrepair until its brief reopening. This was cut short by damage sustained during a taua muru in April 1824, and the building was demolished soon after.

Material reflections of Maori presence at the school can be found in a handful of flakes struck from chert, obsidian and bottle glass; chert and bottle glass cores; and in two pounamu pendants. With one of the latter broken at the attachment, and the other well under the floor of the house, it is intriguing to speculate that these might have been lost during one of the fracas recorded there in 1824. So too for the musket balls, although the only recorded instances of gunfire were earlier, either from conflict within the mission community or when they were in fear of Maori attack (McLennan & McLennan 2012:16, 41).

Perhaps the most compelling evidence of identity within the assemblage is that of children. The slate pencils were held in the fingers of children, both Maori and Pakeha, during acts of learning that would shape their futures. Some of the pencils were personalised with marks or decorations. Toys were also represented by a clay marble, and

the brass model of a carronade. The bracelet would have been a personal adornment, whether for a child or adult.

Although a second school was opened at the mission, this was elsewhere on the site, and not the second structure identified archaeologically in Area 1. The latter was built soon after demolition of the first school. It is centred on the original fireplace but may not have re-used this, judging by the height of the new foundations. Some of the artefacts found around this building were rounded fragments in the pebble paving, making it likely that they derive from earlier, when the school was in operation. However, one of the major artefact concentrations was above the paving on the west side side of Structure 2, indicating that this was a focal point of activity during the second decade of occupation at Hohi. Judging by the concentration of clay pipes here, adults played a part in these activities, although children's toys were among the personal items that also clustered here. There is little in the artefact assemblage that points strongly to food preparation or cooking in this building, although the ceramics suggest that food was served. Perhaps communal meals were shared in this activity area.

While this leaves some uncertainty about the function of Structure 2, we can be reasonably confident of identifying it in Earle's 1827 painting of Hohi. This shows three buildings on the upper terrace: the nearest with smoke rising from the chimney, and presumably a house; farthest away, a large building with its ridge line of its roof perpendicular to the long axis of terrace; and between these two and just to the left of a tree by the fence, a small structure with roof line parallel to the long axis of the terrace (Figure 93). This last building appears to be of the right size and in the correct position for what we recorded archaeologically as structure 2. The large building beyond this is the most likely candidate in Earle's painting, for the Chapel which had been built between 1822 and 1824 (see Chapter 2.4.3), while the house on the nearer side seems likely to have been occupied by the Shepherds after their return to the mission in 1826. The other missionary family present in 1827 were the King's whose house is presumed to be one of the two side by side on the lowest terrace on the hillside, along with the second school which had been built 'con-



Figure 93. Detail from Earle's 1827 painting (see Figure 6) with arrow indicating 'Structure 2'

venient to Mr King's dwelling' in 1825 (Chapter 2.4.2). The very small structure behind these may be an outhouse.

It is notable that the Earle painting does not appear to show any buildings in the vicinity of the middle terrace where our Area 2 was located. The small terrace found at the base of our excavations there must have been an open surface when ceramics were smashed around the school, possibly in 1824. Fragments from two plates found there way downslope before this area was extended, making a new terrace that would have been big enough to accommodate a substantial house. However the only detectable structure on this new surface was small and appears to have been earthen-floored with a stone-lined hearth in traditional Maori form. The virtual absence of nails, window glass or other structural materials also demonstrates that there was no European style structure built there. Ceramics and clay pipes found in and around the floor of this whare appear to be contemporaneous with Area 1 suggesting that this structure was built during the second decade of the mission, and on the evidence of Earle's painting, after 1827. It is also possible that the whare was not built until after abandonment of the mission in 1832, although the artefacts indicate that it could not have been much later.

The material culture assemblage from Hohi is of particular interest because of its association with the very first generation of Pakeha settlers. It shows that they brought with them examples of ceramic wares – tin-glazed earthenware, creamware and pearlware – that would fall out of fashion by the time formal colonisation began in the 1840s. Another 'early marker' is the coarse earthenware, closely similar to sherds found in two Dusky Sound sites of the 1790s and two in Foveaux Strait established in the 1820s – wares perhaps of Australian origin (Smith in press). Likewise, the Chinese export porcelain, that is known to have reached Australia by 1797 (Staniforth & Nash 1998) and is known elsewhere in New Zealand only from one of those Foveaux Straits sites (Bone 2012). However the majority

of their ceramics were transfer-printed whitewares, which are particularly common in later New Zealand sites. Interestingly, all the transfer prints at Hohi are in blue, whereas later assemblages typically include other colours, which only became available after *ca.* 1825 (Samford 1997: Table 5). In 1814, when most of the Hohi ceramics probably arrived, transfer prints were among the most expensive vessels, and are material expressions of the 'cult of domesticity' that underpinned many of the social interactions within the mission (Middleton in press). After 1840 these wares became cheaper, and thus come to dominate all mid to late 19th century New Zealand ceramic assemblages. As far as we can tell from their fragmentary remains the glass bottles were all freeblown, and are remarkable perhaps most by their scarcity, at least in the site areas investigated to date. The nails were predominantly wrought, but also include the earliest documented presence of cut nails in New Zealand.

The assemblages excavated at Hohi in 2012 are not, at least directly, from missionary households. They are from public areas: a school, and subsequent public gathering area in Area 1; and a Maori whare in Area 2. These are all settings in which Maori can be expected to have been regular and reasonably numerous participants. The pounamu ornaments and flakes of obsidian, chert and glass will all have been made by Maori hands, but what is most notable is the overwhelming predominance of European artefacts, which make up 98% of the items (NISP) recovered. The material world of the mission was predominantly an imported one, despite the political world around it being predominantly indigenous. One consequence of this is that many of the items made in imported materials were used predominantly by Maori people – the slate pencils at the school, the food service vessels around the meeting area, and the clay pipes there and around the whare. These 'entangled objects' (Thomas 1991) are perhaps the most important material relics of this site, which witnessed the first sustained European cohabitation in the Maori world.

Appendix:

Burials at Hohi Mission

This list of burials at Hohi was collated from a range of sources, primarily the lists previously compiled by Marie King (n.d.) and Ruth Ross (n.d.), along with information extracted from additional sources. Both the King and Ross lists were derived indirectly from the same informant, Ernest William Beddgood, son of John Beddgood blacksmith/wheelwright at Waimate Mission, but differ in some details. Ruth Ross states that Beddgood had copied the

list from the King family Bible. Additional sources include the journals of missionaries John King (n.d.-c), William Hall (McLennan & McLennan (2012), James Shepherd (n.d.) and James Kemp (n.d.) and of visitor Richard Cruise (1957), along with the letters and journals compiled by Elder (1934) and the archives compiled for the King family (Berry 1981) and Hansen family (Evans 1989).

Name	'Abode'	Date	Details	Buried by	References
Sarah Shergold	Oihi	26 July 1816	Wife of John Shergold (sawyer)	Kendall?	10:18
Thomas Holloway King	Oihi	12 Nov 1818	3 yrs; King's 2nd son	Kendall	1; 2; 6:142
? Brown	On board <i>Dromedary</i>	29/05/1820	Daughter of Sergeant Brown, 84th Regiment; buried 'in King's garden'	Butler	5: 29/05/1820; 7:104
Mr. Wilson	Chief mate on the <i>Indian</i>	24/08/1820	?	?	1; 6:226; 10:67
William Kemp	Seaman on the <i>Arab</i>	1/11/1821	30 yrs	Kendall	1; 2; 10:75
Silas West	Seaman on the <i>Indian</i>	14/02/1822	45 yrs; buried 'in Hall's garden'	Kendall	1; 2; 7:226; 10:77
John Sutherland	From the <i>Vansittart</i>	17/04/1822	19 yrs; in Hall's garden?	Butler?	1; 2; 10:77-8
Jonathan Baker	From the <i>Vansittart</i>	17/04/1822	23 yrs; in Hall's garden?	Butler?	1; 2; 7:226; 10:77-8
Thomas Kinghorn	From the <i>Mary</i>	7/12/1822	30 yrs; in Hall's garden	Butler	1; 2; 10:82
Joseph King	Oihi	24/11/1826	3 yrs; King's 5th son	Kendall	1; 2; 8:4
Harriet Shepherd	Oihi	16/11/1828	3 yrs; Shepherd's daughter	?	1; 2; 4:206
Mary King	Oihi	12/04/1831	10 days; King's 4th daughter	no service as child not baptised	1; 2; 6:259; 8:5
Hannah King	Te Puna	27/11/1851	60 yrs; wife of John King	H. Williams	1; 2; 6:259; 8:17
John King	Te Puna	6/05/1854	67; husband of Hannah	?	1; 2; 6:259; 8:18
John Grey Baker	Russell	5/11/1855	3 months; possibly child of Amy (nee Hansen) & William Baker	R. Davis	1; 2
Mary Eliza King	Te Puna	14/12/1860	19 yrs; wife of John King jnr; daughter of Charles Baker; died in childbirth	R. Davis	1; 2
Elizabeth Hansen	Te Puna	25/03/1867	69 yrs; wife of Thomas Hansen jnr.	E.B. Clarke	1; 2; 9
Jeremiah Letheridge	Te Puna	4/02/1867	2nd husband of Hannah King Letheridge (nee Hansen)	E.B. Clarke	1; 2; 9
Samuel Leigh King	Te Puna	14/01/1871	49 yrs; King's 6th son	E.B. Clarke	1; 2; 8:4
Thomas Hansen	Te Puna	?	Son of Capt. Hansen	?	1; 2; 9
James King	Spring Bank (near Kerikeri)	?	7th son of Kings	?	1; 2; 8:4

Continued overleaf

Appendix: *continued*

Name	'Abode'	Date	Details	Buried by	References
Other possible burials					
Thomas Perryman	From the <i>Rochester</i>	28/12/1823	24 yrs	Kendall	2; [1 indicates buried at Matauwahi Bay]
Child of Browns (CMS)	Oihi	4/07/1830	Stillborn	–	4:219
Child from pa (dismembered)	Rangihoua	4/06/1819 (1/8/1819)		S. Leigh / J. King	3

1–King, M. n.d.; 2–Ross n.d.; 3–King, J. n.d.-c; 4–Kemp n.d.; 5–Shepherd n.d.; 6– Elder 1934; 7– Cruise 1957; 8– Berry 1981; 9– Evans 1989; 10– McLennan & McLennan 2012.

Marie King reported that:

Mr. George Hansen of Purerua told me that there were two separate burial grounds. He mentioned the graves of 'nine sailors' but the records are too incomplete and faulty to check this. (Mr. Hansen said he remembered the sailors' burial grounds being quite plain to see, to the east of the King plot. There is now no trace of it.)

This is consistent with the representation of what appear to be two sets of graves adjacent to each other in a 1926 survey plan (SO14028), detail from which is reproduced in Figure 95. The 'area of graves' shown in Figure 14 includes both of these along with a margin to allow for errors inherent in geo-referencing old survey plans.

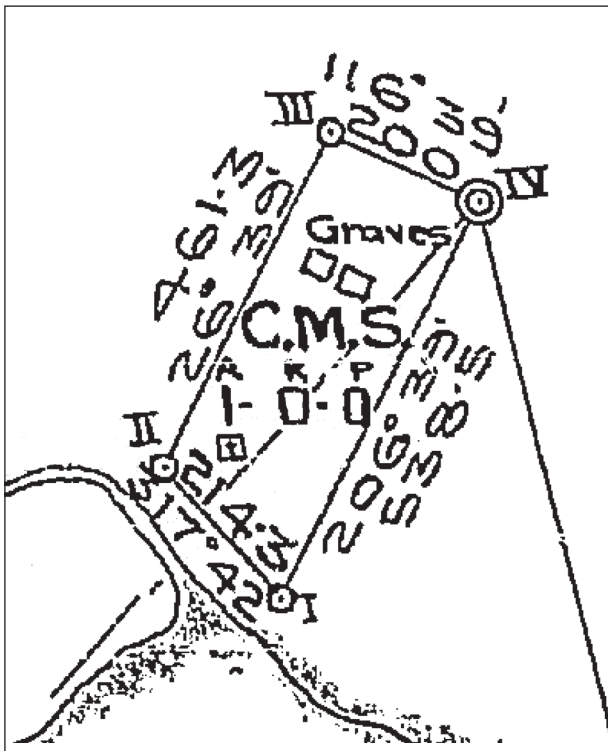


Figure 95. Detail of 1926 survey plan (SO14028) showing two sets of graves.

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