Excavations at the Oashore Whaling Station

(M37/162) Banks Peninsula January-February 2004

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Introduction

Oashore is the westernmost bay on the south coast of Banks Peninsula (Figure 1) and one of the smallest. No more than 250m wide at its entrance and only 600m long, it has steep rocky cliffs on each side with a sand and boulder beach at its head. Facing southwest, it is exposed to prevailing winds and heavy seas, but nonetheless provides the closest safe landing place to the Canterbury Plains. Behind the beach is a narrow valley (Figure 2), about 50m wide and 120m in length, hemmed in by hills that rise steeply to about 200m above sea level, making overland access to the rest of Banks Peninsula difficult, but just one steep climb to the Canterbury Plains. These hills have an igneous basaltic bedrock mantled with greywacke loess. At the time of European contact they would have been covered in tussock grassland, with remanants of podocarp forest confined to the head of the valley (Soons *et al.* 2002, Whyte 2002).

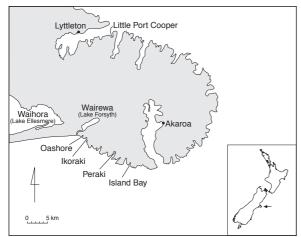




Figure 1 Banks Peninsula, showing the location of Oashore and other shore whaling stations

Figure 2 Oashore viewed from the southeast in January 2004

There is no traditional information available concerning early Maori use of the bay. Its close proximity to the cluster of settlements around the outlet of Wairewa (Lake Forsyth) including Ngutu Piri, Oruaka and Te Mata Hapuka (Taylor 2001:11), make it likely to have been visited regularly for harvesting fish, shellfish and sea birds. An 1841-2 Maori map shows it as *Oiho* (Maling 1969: 109), while *Oihoa* was given before an 1843 land commissioner (Waitangi Tribunal 1991: X) and *Oahoa* is used today by the Wairewa runanga. These are just three of at least 21 names that have been used for this bay — Goashore, Ihoa, Ihowa, Koahoa, Koahua, Oahua, Oashaw, Oashore, Oauhau, Ohahoa, Oihowa, Oisho, Oishore, Oishou, Orsha, Orsho, Orshaw, Oysho. Andersen (1927:135-6), who collected most of these names, makes a case for *Go-ashore* being the original European name, with many of the variants being either attempts by Maori to say this, or attempts by Europeans to spell the Maori forms. *Oashore* was established as the official name by the Geographical Board in 1982 (Ogilvie1994: 214).

Shore whaling began at Oashore in 1839 with the peak year of production probably in 1844, when four boats and 35 men were employed, and continuing until at least 1849. The layout of the station was recorded by surveyor Octavius Carrington in that year (Figure 3) on behalf of George Rhodes who had purchased the station in 1848, incorporating it into his Kaituna sheep run.

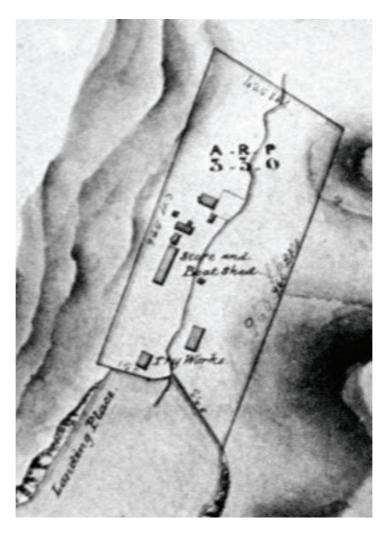


Figure 3 Detail from plan of "Oihowa" Whaling Station, surveyed by Octavius Carrington, 1849 (*Canterbury Museum Archives*)

Whaling operations were conducted by Kaituna station hands during their winter off-season for several years. This appears to have ceased by the mid-1850s, at which time Thomas Kennedy's family were living at Oashore while he worked at Kaituna¹. When the Rhodes Brothers' partnership was dissolved in 1875 the Oashore block was purchased first by James Bell and Edmond Ensor, then in 1879 by the Buchanans who added it to their Kinloch station. Soon after this a road was constructed down the western slopes of Oashore valley (Figure 4), traces of which are still visible today. When Kinloch was broken up for closer settlement in 1906 a fence line separating blocks 14 and 15 was placed along the valley floor, dividing the former whaling station in two. During the early decades of the 20th century at least two makeshift fishing huts were constructed just above the beach (Taylor 1937:, Ogilvie 1994: 217) while visible remnants of the station included parts of the tryworks structure (Figure 5) and the capstan (Ogilvie 1994:217).

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¹ It can be inferred from the memoirs of his daughter, Amelia Sullivan, that the family lived at Oashore during one of the whaling seasons (possibly 1848), and again after living at Long Bay, Peraki and Ikoraki, the last of which they left before it was purchased by J.D. Buchanan (Sullivan n.d.: 3) which occurred in 1857. Regarding the second period at Oashore she notes "...this bay had also been a whaling station...there were large pots still on the beach..." (ibid.: 4).



Figure 4 Detail of 1881 Survey Plan (SO2922) showing road into "Oihoa" Bay (*LINZ Digital Cadastral Plan Database*)



Figure 5 Remnants of the tryworks at Oashore, 1924. W.A. Taylor photograph (*Canterbury Museum 4473/1/2*)

Previous Investigations

Archaeological remains were first reported at Oashore in 1961 by Tony Fomison (NZAA Site Record Form S94/13 [M37/28]), who described a layer of mussel shell midden in one bank of the stream crossing the beach flat, and a layer of whale bone in the opposite bank. He commented that "it is possible that both strata belong to occupation of the bay as a shore whaling station in the 1840s", and noted definite evidence of that period in the form of a trypot on the beach.

Following a visit in 1990, Jacomb submitted a site record for the whaling station (SRF M37/162) noting that the apparent site of the tryworks "overlies Maori midden at the beachfront", thereby subsuming the previously recorded site. He also recorded remains of the walls and chimneys of stone buildings on flat land further up the valley and produced a tape and compass plan of the site (Jacomb 1998: Fig 8). A small excavation was undertaken in the vicinity of the tryworks which had recently been damaged by a bulldozer in 1989.

Investigations in 2004

The investigations described here were carried out between 19th January and 14th February 2004 under NZHPT Authority No 2004/118. Selected areas of the site were cleared of long grass with a weed-eater and the visible features and surface topography mapped in detail using plane table and electronic alidade (Figure 6). Because the tryworks were known to have been damaged, attention was focussed on the more intact features further up the valley. Nearly all of these were located on a terrace 10-15 m wide that ran along the western side of the valley, separated by a scarp from sloping ground falling gently to the stream. Four excavation areas (2, 4, 5 and 7) were laid out on the highest, flattest part of the terrace, and another (1) on a slightly lower portion to the north. The two remaining areas (3, 6) were on the slope above the stream. The excavations were oriented on a grid aligned to a north-south baseline down the centre of the valley, and each metre square was labelled in terms of its distance south and either east or west of the grid origin.

Excavation followed standard archaeological procedures. Turf was removed either by spade, or by hand trowel where there was surface stone, and stockpiled. Wherever possible, the underlying deposits were excavated by hand trowel following observable stratigraphy, or by 10 cm spits within deeper strata. However, prolonged drought had made the fine-grained loess deposits covering much of the site extremely hard, requiring careful excavation by spade in places. All significant artefacts and faunal reamins were plotted on record sheets and bagged separately, while other materials were extracted by screening excavated soil through 6.4 mm sieves, and bagged by stratigraphic layer and square. All excavation areas were drawn in plan and photographed, and stratigraphic profiles were also drawn.

Area 1

Area 1 was laid out around a partially collapsed rectangular stone structure. This comprised four walls, each approximately half a metre in width and standing to similar height, although the highest section in the north-west corner of the building reached over 1m. They were constructed of basalt, locally available in the valley, and packed with a yellow loessic clay mortar. Both large boulders and small stones were used in the walls, and many similar items lay strewn across the surrounding area. A total of 56 m² units were completely or partially

excavated both inside and outside the building (Figure 7). This disclosed four primary stratigraphic layers, two of which could be subdivided into discrete contexts (Figure 8).

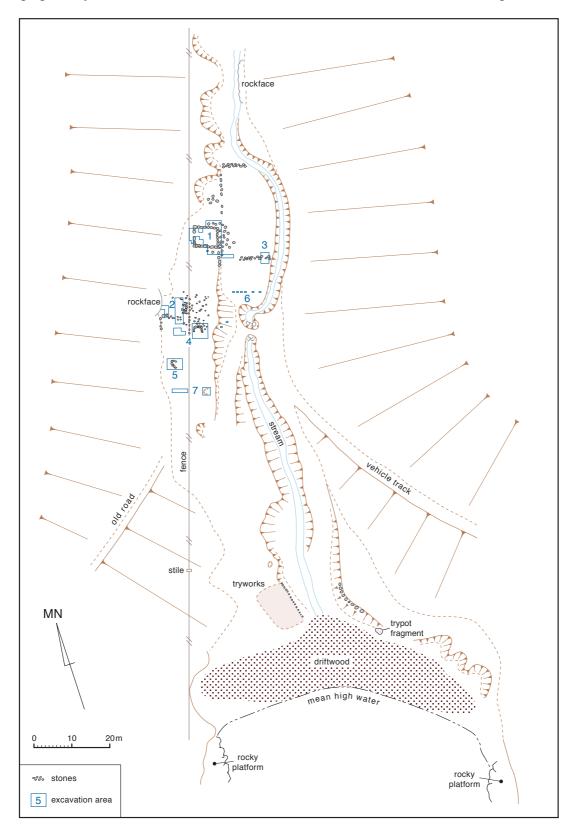


Figure 6 Oashore Excavations, 2004

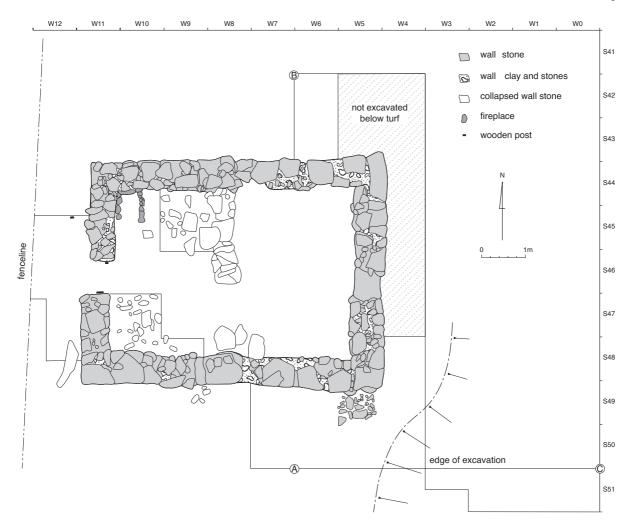


Figure 7 Area 1: plan of excavations

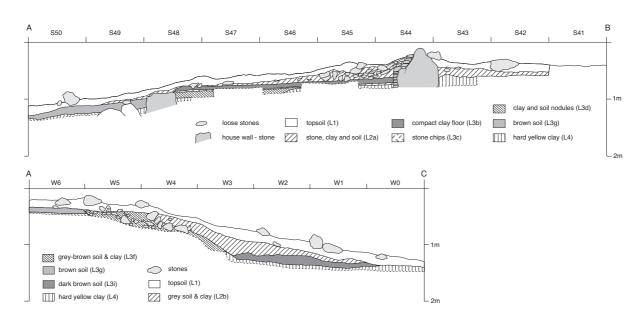


Figure 8 Area 1: south-north (above) and west-east (below) profiles

Layer 1 was a light grey loam, up to 20 cm in depth, but thinning to nothing where the ground was very stony. This recent topsoil contained most of the skeleton of sheep, some brown glass and a plastic button, along with older items derived from the layers below.

Layer 2 was made up of two components relating to the collapse of the structure. Over most of the area was a grey soil containing stone rubble and varying amounts of yellowish clay (layer 2a) which clearly derived from the stones and mortar of collapsed walls. South of the building mortar from the collapsed walls had washed over a small scarp and mixed with grey soil (layer 2b). Both components contained artefacts and faunal remains.

Layer 3 comprised various deposits and features from the construction and use of the building. Layer 3a denotes a stove feature in the northwest corner (see below). About three quarters of the interior of the structure was excavated, revealing a floor of compact yellow-brown clay (layer 3b) up to 10cm in depth. Testpits through the floor showed that it lay on top of a thin lens of stone chips (layer 3c). In the northern half of the structure this lay directly on layer 4, but in the south these were separated by a deposit of clay and subsoil (layer 3d). Outside the southeastern corner of the building a rectangle of stones formed what appeared to be a sump (layer 3e), and grey-brown soil, clay and large stones (layer 3f) had been used to level up the ground surface along the edge of the scarp. The latter partially overlay a brown soil (layer 3g) which appeared to be a remnant of the original topsoil at the time of occupation. Only a very thin grey-brown soil (layer 3h) could be detected outside the western end of the building. Below the scarp southeast of the building was a dark brown soil (layer 3i) that will be discussed further in conjunction with area 3. Artefacts and fauna were recovered from all except the two sub-floor components (3c, 3d).

Layer 4 was a very hard yellow clay.



Figure 9 Part of north wall of Area 1 house, viewed from inside (left) and above (right)

The structure in Area 1 was a substantial house. The surviving lower courses of its walls averaged 0.6 m (two feet) in thickness and had been been constructed from very large boulders that would have required more than one man to manoeuvre into place, along with carefully laid and clay-mortared small stones (Figure 9). Exactly how high these originally stood can only be guessed at: we suspect that they may have reached 1.5 - 2.0 m. The ground surface within the walls had been flattened by filling the southern side with soil and clay (layer 3d) cut from the slightly higher northern side. Many of the larger wall stones were roughly dressed during construction, producing a thin scatter of stone chips over the interior

(layer 3c), and the floor was completed with a layer of local loessic clay compacted into a hard flat surface (layer 3b). Previous observers had reported what seemed to be an interior wall (e.g. Jacomb 1998: 72-3), but our excavations showed that this was part of the collapsed external walls, making the building a single large room measuring 5.52 m (ca 18 ft) long and from 3.66 to 3.96 m (12 to 13 ft) wide.

The doorway was located at the western end of the building, formed by a 0.72 m wide gap in the stone wall with remanants of two wooden posts still in place at each side. The 1849 plan shows a small protrusion from this end of the building which seems likely to have been a porch, and fragments of timber in verticle position just north of the doorway could be remnants of a supporting post.

The house did not have the substantial chimney and open fireplace typically found in 19th century dwellings. Remains of a small iron stove were located in the northwest corner of the building (Figure 10). Constructed of rivetted iron plates, it appears to have originally comprised an enclosed square or rectangular firebox supported on stones set into the house floor, and presumably connected to a chimney pipe exiting through the roof. At some later stage remnants of this were reused with a top plate supported on a second course of stones, with fire set below the bottom plate. A large number of iron and copper alloy nails recovered from the fill this feature (layer 3a) presumably derive from pieces of wood used as fuel.

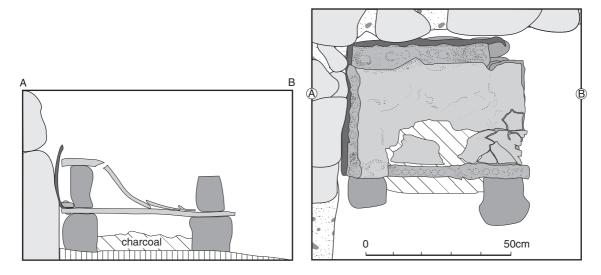


Figure 10 Remnants of iron stove in Area 1: profile (left) showing reused upper plate, and plan (right) with upper plate removed. Drawn from successive plans and photos.

Metal, glass and ceramic artefacts were scattered across the interior of the house with particular concentrations in squares S47 W8-9 and S45-6/W7-8. Just over half of these were recovered from the wall rubble (layer 2a), with most of the remainder from the floor (layer 3b) and lesser amounts from layer 1. Conjoining pieces of eight separate ceramic vessels were recovered from each of these layers, demonstrating that there was significant mixing of artefactual material during the collapse of the building. A smaller cluster of artefacts in the porch area included a horseshoe that may once have hung above the door. The other main concentration was on and above the scarp at the southeast corner of the house, where the majority of artefacts were securely associated with layer 3. These included more than 40% of all the clay tobacco pipes recovered on the site, suggesting that this was a popular place to sit and smoke.

Area 2

Area 2 encompassed the tallest surviving remnants of a chimney on the site, and a flat terrace about 5 m x 5 m extending to the base of the hill (Figure 11). The southern end of the terrace was demarcated by a rough line of large stones protruding from the turf, while a low scarp formed its northern and north eastern edges. The chimney base stood 1.4 m high and was constructed of roughly dressed basalt packed with clay mortar (Figure 12). Its side walls diverged slightly so that the fireplace was wider at the front (ca 90 cm) than the back (ca 75 cm). A total of 20 m² units were partially or completely excavated, revealing four layers (Figure 13).

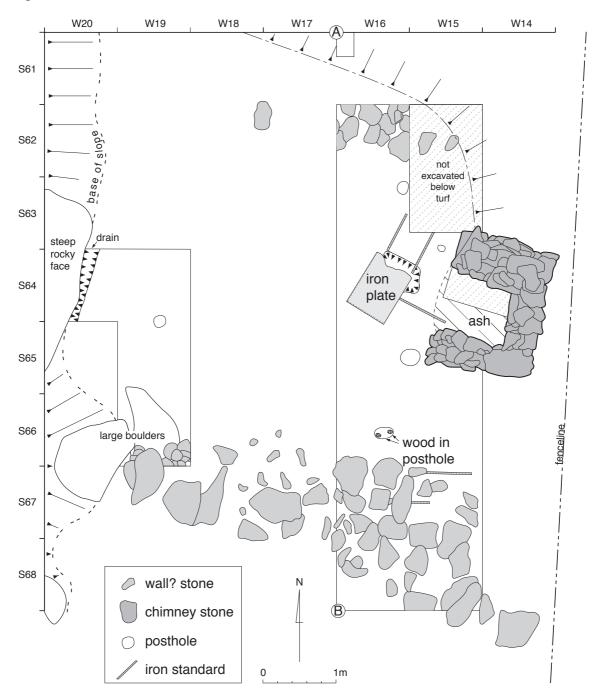


Figure 11 Area 2: plan of excavations



Figure 12 Chimney base, Area 2. Loose stones and soil have been removed, revealing charcoal from recent fires. The original fireplace was 35 cm below this level

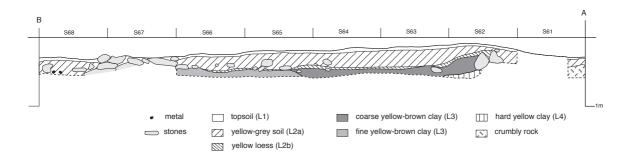


Figure 13 Area 2: north-south profile

Layer 1 comprised a turf and brown topsoil, nowhere more than 8 cm deep. It contained two clusters of material. Near complete skeletons of two sheep were found amongst a jumble of fallen stones and loose soil within the fireplace, and parts of another sheep skeleton were located in squares S64/W19-20. Artefacts were scarce, consisting mostly of unidentifiable fragments of iron.

Layer 2 was a compact yellow-grey loess-derived soil that averaged 15 - 20 cm in depth. Over most of the area the lower 2-5 cm comprised a distinct band of compact yellow loess that appeared to have flowed over the underlying surface, perhaps as slope-wash from the adjacent hill. The layer was excavated in two spits. The upper 10 cm (layer 2a) was virtually devoid of fauna and artefacts, although two iron fencing standards were recovered at 8-10 cm depth in S66-7/W15. In the lower part of the deposit (layer 2b) there was a cluster of items, especially iron fragments, immediately in front of the fireplace, and similar items were present in the the equivalent level of the fireplace fill (layer 2c).

Layer 3 was a hard yellow-brown clay, finer and lighter in colour towards the southern end, and coarser and darker to the north, where it reached a depth of about 20cm. Metal, glass and ceramic artefacts were abundant on the surface and in the upper few centimetres, especially

in the squares in front of the fire, and the ashy fill of the fireplace contained remnants of a cast iron firegrate. Three iron fencing standards and a large iron plate lay on the surface in front of the fire. Partially beneath the plate was an irregularly shaped cavity, 25 cm deep, into which some artefacts had spilled. Four post holes, one of which contained remnants of wood were encountered at the eastern end of the area, and a fifth near the western end. Beyond this was a shallow drain along the base of the slope.

Layer 4, a hard yellow clay, was encountered only in S62/W16. A testpit north of this in S61/W16 encountered a layer of crumbly rock which may be the base material from which this clay derives.

The structure in this area was clearly less substantial than that in Area 1. The row of stones along the southern edge of the terrace appear to have formed a low wall. A similar feature was encountered in S62/W16 at the northern end, and probing suggested that this continued northwestward along the top of the scarp. However it is not clear whether these were house walls, or simply defined the perimeter of the terrace. Three of the postholes align with the front edge of the fireplace, indicating the line of the eastern end wall, while the one in S64-65/W19 is presumably from the western end wall. The remaining example could be from the northern wall, although if the stones formed the base of this wall, it must have been from an internal structure. While the posts clearly indicate structural use of wood, nails and spikes were relatively scarce, suggesting that that the building is unlikely to have been clad in wood. Sheathing tacks and flathead nails were the most common types of fasteners, and could have been used to secure canyas.

Area 3

Carrington's 1849 plan (Figure 3) shows an enclosure east of the largest house, and our ground survey revealed discontinuous stone rows delineating an area of stone free ground east of Area 1 (Figure 6). Area 3 was laid out across part of the southern stone row, which excavation showed to be a drystone wall about 50 cm high. Three stratigraphic layers were encountered (Figure 14).

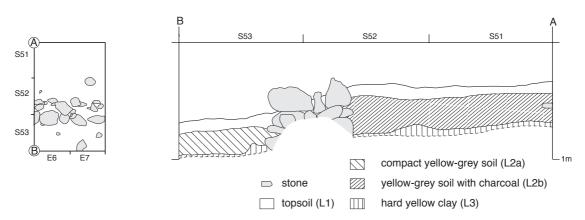


Figure 14 Area 3: plan (left), and north-south profile (right)

Layer 1 was a brown topsoil about 5 to 10 cm in depth.

Layer 2 was a yellow-grey soil. South of the stone wall (layer 2a) it was a compact subsoil, about 20 cm deep. North of the wall (layer 2b) it was slightly browner in colour, flecked with

charcoal and 30-35 cm deep. Both components contained metal, ceramic and glass artefacts and faunal remains.

Layer 3 was a hard yellow clay.

The stone walls are likely to have been constructed for stock management, either to create a pen to keep them in, or in order to fence them out of a garden area. The latter appears to be the more likely explanation, as the greater depth of soil within the enclosure provides a strong indication that it had been dug over. Both the darker colour and presence of charcoal in the soil within enclosure suggest the addition of organic matter to improve what must have been a relatively poor soil. Even stronger evidence of this was found in the dark brown soil encountered in the south eastern corner of Area 1, where it extended down a scarp into the western edge of the enclosure (see Figure 8, layer 3i).

Area 4

Area 4 was laid out to investigate a concentration of stone rubble in squares S69-70/W9-12, and the flat, stone-free ground to the south and west (Figure 15). This corresponded to the location of a rectangular building with a substantial protrusion on its northern side shown in the Carrington plan. Clearing the rubble revealed an intact chimney base, constructed of dressed stone with walls about 0.6m thick. As in Area 2, the side walls diverged so that the fireplace was wider at the front (2 m) than back (1.5 m). Three stratigraphic deposits were encountered (Figure 16).

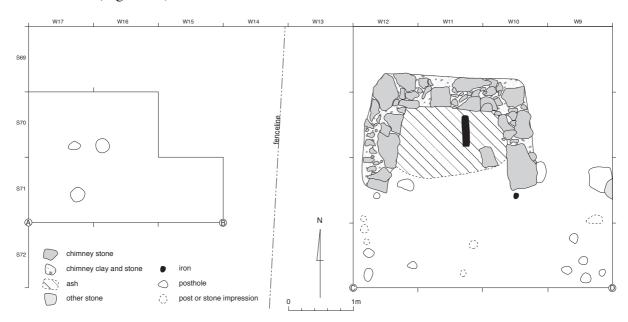


Figure 15 Area 4: plan of excavations

Layer 1 was a brown turf and topsoil. Over most of the excavated squares (layer 1a) it reached up to 8cm in depth and contained a few fragmentary artefacts and a cluster of rabbit bones. In the squares with stone rubble (layer 1b) the topsoil was only 2-5cm deep but contained a slightly greater number of artefact and bone fragments.

Layer 2 was a yellow-grey loessic soil that ranged from 12 to 42 cm in depth. The upper 10 cm (layer 2a) was virtually sterile, while below that (layer 2b) both artefacts and fauna were

abundant. They were also common in the compact ashy fill of the fireplace (*layer* 2c). A large rectangular iron object within this fill was probably an andiron (firedog).

Layer 3 was a hard yellow clay. The boundary between this and layer 2 was indistinct, and a the small number of artefacts and bones ascribed to this layer were recovered from the interface zone.

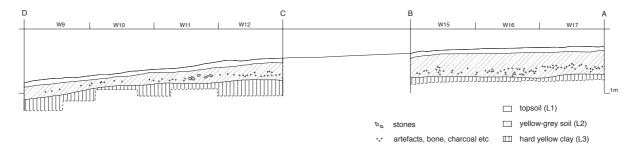


Figure 16 Area 4: west-east profile

Sixteen postholes were encountered in layer 2b, with depths ranging from 10 to 28 cm, taking them down into the basal clay. The most substantial examples were the two immediately east of the fireplace and the two in S70/W16-17. Comparison with the Carrington plan suggests that these delineate the north wall of the structure. With a modern fenceline running along the W13 row it was impossible to test for wall posts immediately west of the fireplace. The three postholes at the west end of Area 4 appear to define the northwestern corner of the structure. Working from this, and dimensions of ca 8.0 x 3.6 m estimated from the Carrington plan (see below), the large posthole beside the baulk in S71/W9 would have been the northeastern corner, and the south wall would have extended from S74/W9 to W17.

All the remaining postholes are within this perimeter, making it likely that most of them held piles that supported a wooden floor. This is also suggested by the absence of any compact level surface that could be defined as an occupation floor. It is possible that some of the shallower, irregularly shaped features encountered during excavation were also from some kind of floor supports. A different function may be suggested for the postholes immediately in front of each side wall of the chimney. The eastern specimen contained an upright 20 cm length of iron pipe, 7.62 cm (3 in) in diameter, while the western specimen, of matching dimensions had traces of rust visible in the fill. It seems likely that these supported some sort of iron structure in front of the fireplace. This fireplace was considerably wider than any of the others excavated at Oashore, raising the possibility that this building served a communal function.

Most of the artefactual and faunal material recovered from Area 4 derived from either the fill of the fireplace, or the deposit that had accumulated under the floor of the structure (layer 2b). The latter included the most complete item of whaling gear recovered from the site, a harpoon head with a section of intact shaft.

Area 5

Area 5 was focussed on a crescent-shaped cluster of rounded beach cobbles on an otherwise stone-free terrace that sloped gently from west to east. Excavation demonstrated that the crescent of stones were the uppermost surviving courses of a chimney mound, which had been buried by up 60 cm of loess-derived soil (Figures 17, 18). The chimney mound was constructed of stacked boulders packed with clay and smaller stones. Although not

completely excavated, its outer perimeter appeared to describe a broad semicircular arc, while the inner margins formed a rectangular fireplace with a depth of 0.8 m, and width of 1.25 m at the back and 1.4 m at the front. Three layers were identified.

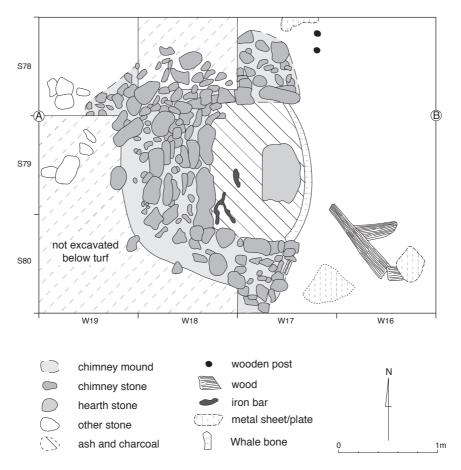


Figure 17 Area 5: plan of excavations

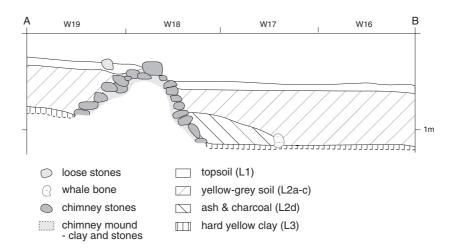


Figure 18 Area 5: west-east profile

Layer 1 was a turf and brown topsoil up to 10 cm in depth. A few fragments of metal and glass were found in the base of the turf.

Layer 2 was a yellow-grey soil up to 60 cm in depth. It had a high loess content and was very compact and difficult to excavate. It was removed in three components. The upper 10 cm (layer 2a) contained only two bones and a few fragments of metal and glass. Artefacts and fauna were more common in the second 10 cm (layer 2b), but most abundant below that (layer 2c) especially at the interface with layer 3. Artefacts were also recovered from the ash and charcoal within the fireplace (layer 2d).

Layer 3 was a hard yellow clay. Two small wooden stakes were embedded about 12 cm into the clay.

Only a small part of the house in this area was excavated, due to the depth of very compact soil that had buried it. The hardness of this soil and its similarity in colour to the underlying clay made it difficult to identify a discrete occupation floor, but the level at which this must have occurred was defined by the concentration of artefacts in layer 2c. This coincides with the level at which the front of the fireplace is defined by a whale rib, cut to size, serving as a fender at the front of the hearth. A large flat stone set within the fireplace presumably served as a pot warmer, and numerous fragments of iron, some square in section, are probably remains of a grate or some other fireplace hardware.

With only two posts identified, the archaeology provides little evidence for the size and shape of this house. However, comparison with the Carrington plan (see below) shows that these posts are likely to have been part of the western wall of a rectangular building approximately 5 m by 2.6 m, with its northern wall running from \$76/W16 to \$76-77/W14 and the southern wall from \$81/W17 to \$81-82/W14. What this structure was made of is not clear, although remnants of three wooden planks lying horizontally over the material of the floor may have derived from the roof or walls. These lay adjacent to two concentrations of folded metal sheet, probably crushed remains of large storage cans, which may indicate that the building collapsed at the end of its life.

Area 6

Area 6 refers to two groups of test pits south of Area 3 – six located on the S60 line, and the others at S69/W3 and S70/W5 (see Figure 6). These were ca 0.3 m squares excavated by spade to test for the presence of subsurface cultural deposits. All showed a similar stratigraphic profile, with a turf and brown topsoil overlying a yellow-grey subsoil of varying depths which graded into a hard yellow clay. Five of the six testpits at S60 yielded single fragments of glass, ceramic or stone artefacts. No artefacts or fauna were recovered from the remainder, and no further investigations were undertaken in these areas.

Area 7

Area 7 was opened to transect the area marked on Carrington's plan as "store and boat shed". Investigations were initially focussed on a shallow hollow in the ground surface in S86-87/W9-10, then extended to S86/W15-18, and cleaning down the exposed face of a scarp at W7 (Figure 19). Four layers were identified.

Layer 1 was a turf and brown topsoil about 5 to 10 cm in depth.

Layer 2 was a yellow-grey soil that reached a maximum depth of 70 cm at the western end of the excavation. It was very compact, with a high loess content, and in places contained distinct lenses of yellow loess that presumably had accumulated in hollows in former ground

surfaces. The upper 20 cm of this deposit (*layer 2a*) in S86-7/W9-10 contained fragments of iron hoop along with two earthenware fragments, a piece of bottle glass and a clay pipe. In the lower part of the deposit (*layer 2b*) glass bottle fragments were found in S86/W18.

Layer 3 comprised four components. Layer 3a was a lens grey soil containing pieces of charcoal and bands of ash as well as pieces of copper sheet, bottle glass and fragments of bone. Within this were two vertical timber slabs that had been set into a narrow trench dug into the underlying clay. This deposit was up to 45 cm deep in S86/W18 but thinned rapidly east of the timber slabs. Layer 3b was a thin lens of white ash concentrated immediately east of layer 3a in S86/W17, but encountered discontinuous in W15-16. It lay on top of a greybrown soil (layer 3c) 10-15 cm deep that contained two large iron artefacts. Layer 3d was a brown soil that was encountered in S86-7/W9-10 and in the W7 section.

Layer 4 was a hard yellow clay.

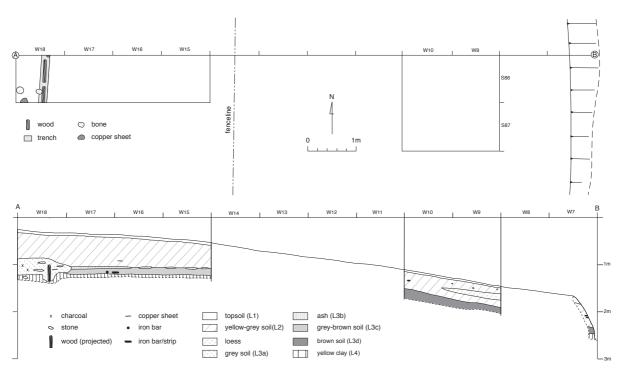


Figure 19 Area 7: plan (above) and west-east profile (below)

The trench and timber slabs located in S86/W18 are clearly remnants of a wall, and their position matches closely the western side of the 'store and boat shed' shown in the Carrington plan (see below). The eastern wall is likely to have been about 5 m distant, in W 13. The squares excavated further east were therefore outside the structure, and layer 3d is likely to be the original topsoil at the time the boat shed was constructed. Layer 3c, which forms the floor within the structure, appears to be a stained derivative of this soil. Layer 3a is material that accumulated outside the western wall, spilling over the edge of the floor, perhaps through gaps between the wall slabs, or after the collapse of the building. Layer 3b appears to be a thin wash of ashy material derived from layer 3a.

Discussion

Detailed comparison of our site plan with that made by Carrington demonstrates that the latter is not an entirely accurate representation of the layout of the whaling station. The most obvious feature in common is the large stone house in Area 1, and when the 1849 depiction is enlarged to the same scale and overlayed on our plan it matches this building closely in width, but over-represents its length by about 35%. Conversely, it shows the stone walled enclosure as only about 60% of the length apparent on the ground, and the coastline about 25 m inland and rotated westward of its true position. There is, however, a good match between the two plans with respect to the buildings in Areas 4, 5 and 7. Rescaling and rotating the plan slightly, protrusions from two of the buildings can be overlayed on the chimneys excavated in Areas 4 and 5 (Figure 20). This places walls of those buildings directly over postholes excavated in Areas 4 and 5, and one of the walls of the boat shed over the timber slabs in Area 7. If this part of Carrington's plan can be relied upon for accuracy, it suggests the presence of another small rectangular structure at the foot of the slope immediately northwest of Area 4. As long as this is not a misplaced depiction of the Area 2 chimney, it may be inferred from the absence of anything in the latter area that there was no longer a house standing there by 1849.

One of the most surprising observations during excavation was the depth of soil that had built up over the archaeological features. Loess-derived yellow-grey soil formed a compact layer ranging from 20 cm to 70 cm deep over almost all the surfaces associated with occupation of the whaling station. It was also noted that the modern ground surface along most of the terrace where the main excavations took place had the same flat profile as the underlying occupation surfaces. This suggests that main contributor to soil buildup was airborne loess rather than colluvium which would have gradually increased the west to east slope of the terrace. Small fans of slope-wash were evident in the vicinity of Areas 5 and 7, indicating that local processes contributed to the deepest areas of soil buildup, but it seems likely that agricultural development on the Canterbury Plains was the major source of the deposits burying the whaling station. It can also be suggested that the soil buildup was predominantly a nineteenth century phenomenon. Area 1 stands out as having relatively little overburden, and as will be seen in Chapter 6 there is a strong likelihood that this house was still standing at the beginning of the 20th century.

A significant proportion of the archaeological contexts investigated at Oashore were located deep within or buried beneath the buildup of overburden. With few exceptions, items found in these contexts will have derived from occupation of the whaling station. Substantial assemblages of artefacts and/or fauna were recovered from several of the deep contexts in Areas 2, 4 and 5 (Table 1). Large assemblages were also recovered from a variety of shallower contexts including most of those in Area 1, and the upper part of the soil overburden elsewhere. While it is probable that most material from these will be from the whaling station, there is a greater likelihood that items from later activity at the site may also be incorporated, suggesting that caution will need to be excercised in their interpretation. This applies even more strongly with the *surface* deposits where it was noted for Areas 1 and 2 that the majority of faunal remains were from recently deceased animals. However, earlier material was also present, at least in Area 1, as demonstrated by the conjoining of ceramic vessel fragments layer 1, 2a and 3b. The implications of these observations will be considered in a forthcoming monograph (Smith and Prickett n.d.). This will incorporate the results of analysis of artefacts recovered during the excavations, which have been described in detail elsewhere (Harris 2005, Harris and Smith 2005).



Figure 20 Outlines of structures from Carrington's plan overlayed on archaeological features in Areas 2, 4, 5 and 7

Table 1 Summary of Archaeological Contexts at Oashore (substantial assemblages are denoted in bold)

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7
I surface	1	1	1	1a, 1b	1	1	1
II shallow	2a, 2b 3a, 3b, 3c, 3d,3e, 3f, 3g, 3h	2a	2a, 2b	2a	2a	2	2a
III deep	3i	2b, 2c 3a , 3b, 3fp		2b , 2c 3	2b, 2c, 2d		2b 3a, 3b, 3c, 3d

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