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A MIDDEN (R27/91) ON MATIU/SOMES ISLAND, WELLINGTON HARBOUR

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Background

The hospital building on Matiu/Somes Island was built in 1918 on a site in the vicinity of a traditionally known pa named Haowhenua (Best 1918). In 1915 Elsdon Best saw a midden near this location and listed the shell and other faunal contents (Best 1918:88). Currently, the only surviving archaeological remains at the ground surface near the hospital building is a small deposit of midden recorded as R27/91 (Walton 1997:25). The original ground surface at the hospital building site has been extensively modified and the nature and status of any occupation is hidden by the earthworks of the cut and fill terrace on which the building sits, and by the building itself.

The hospital building is a typical New Zealand bungalow of the period. The piles under the building had deteriorated and when work began to replace them, shell midden was discovered. The author, accompanied by Richard Nester (Wellington Conservancy, DOC), made an assessment of the newly discovered deposits on 26 February 1999. It was determined that the re-piling would likely result in some damage to an *in situ* deposit buried under the front of the building terrace but that most of the midden encountered had been re-deposited in 1918. The issue was discussed with Wellington Tenth's Trust and an authority (1999/29) was obtained from the New Zealand Historic Places Trust which required monitoring of the digging of the piles.

Richard Nester and Vanessa Tanner (contract worker, Science & Research Unit, DOC) did the monitoring required under authority (1999/29) during two visits in March. Midden material from the holes was sieved and any bone retained for identification. Material from the pile holes could not be securely assigned to

layers and was retained as one sample from each visit (designated here as "piles, sample 1" and "piles, sample 2").

This report describes the stratigraphy and the nature of the faunal material recovered as a result of these brief investigations.

Stratigraphy

The hospital building is about 12 m long and 9 m wide. It sits on a cut-and-fill terrace, which was apparently specifically formed to accommodate it (Fig. 1). The rear part of the terrace is cut into the subsoil and any archaeological deposits that once existed there have been re-deposited as fill to build up the front of the terrace.

The preliminary investigation centred on two test pits. Test Pit 1 (300 x 300 mm) was dug 3.2 m from the north-east corner of the building and 200 mm out from the east wall. Test Pit 2 was dug 2.3 m from the south-east corner of the building and 200 mm out from the south wall. The test pits confirmed the presence of undisturbed deposits below the fill. The 1918 surface, with undisturbed deposit below, was found at a depth of 650 mm in Test Pit 1 and at 230 mm in Test Pit 2.

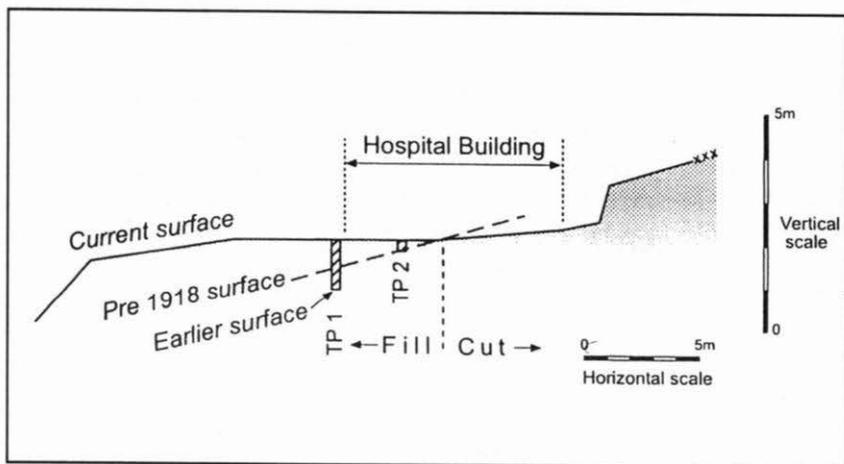


Figure 1. Profile of hospital building terrace showing lateral positions of Test Pits 1 & 2. Crosses indicate remnant in situ midden deposit at ground surface. Note vertical exaggeration.

Five layers were encountered in Test Pit 1:

	Depth (mm)	Material	Interpretation
1	0-210	Yellow subsoil with greywacke lumps and inclusions of shell and charcoal.	Redeposited subsoil material formed by cutting and filling to make the terrace for the hospital building in 1918.
2	210-450	Shell and bone in grey-black soil matrix. Two small pieces of glass and a piece of metal indicate deposit is a mixed one.	Redeposited midden material formed by cutting and filling to make the terrace for hospital building.
3	450-650	Yellow subsoil.	Redeposited subsoil material formed by cutting and filling to make the terrace for hospital building.
4	650-1020	Deposit of soil containing oven rake-out and pockets of midden (shell, fishbone, birdbone) and sizeable chunks of greywacke.	Occupation debris accumulated on slopes immediately below a living area. The top of the deposit was the ground surface when the hospital terrace was cut in 1918.
5	>1020	Yellow subsoil, with inclusions of other material.	Disturbed subsoil.

In summary, Layers 1-3 are redeposited material created by cutting and filling for the building terrace. Layer 4 is an *in situ* deposit containing midden material in places. It is composed of soil, oven rake-out, midden, and stones (examples excavated included one 140 mm x 80 mm and one 210 mm x 200 mm). All of this material has washed out or rolled down from above. This part of the midden deposit probably sat on the side of the ridge near the top of the slope.

Faunal Remains

Material handled on all three visits was put through one of two sieves: one with a 3 mm mesh and one with a 4 mm mesh. The faunal material recovered consisted of whole shell or fragments of a number of species and also fish, bird,

and dog bone. Tuatara was represented by a single part of a jawbone recovered from a pile hole (Sample 2). The identification was confirmed by Dr Charles Daugherty of Victoria University of Wellington. The presence of this bone confirms two historical records that report tuatara on the island in the 19th century (e.g. Best 1918:87).

Faunal material was collected to identify species in the midden and for comparison with Best's (1918:88) list of the contents of a midden seen near this location in 1915. Best (1918:88) reported that the midden he saw contained *Mytilus canaliculus* and *M. edulis* (most numerous); *Amphibola crenata* (numerous); *Evechinus* (fairly numerous); *Turbo smaragda*, *Haliotis iris*, *Cominella maculata*, *Astraea sulcata*, *Monodonta aethiops*, *Mesoderma ventricosum*, *Ostrea*, *Turritella*, *Thais succinta*, *T. haustrum*, and *Helcioniscus* (few). He noted that the midden also contained fish and bird bones.

Shellfish identified and relative frequencies were:

Common Name	Scientific Name	Frequency
cat's eyes	<i>Turbo smaragda</i>	Numerous
mudsnail	<i>Amphibola crenata</i>	Numerous
common marine mussel	<i>Mytilus canaliculus</i>	Fairly numerous
paua	<i>Haliotis iris</i>	Rare
kina	<i>Evechinus chloroticus</i>	Traces only

There are some differences in the relative frequencies of the shellfish found and those reported by Best and this is probably a reflection of variable composition across the deposit or deposits. As Best (1918:88) noted, the nearest source of mudsnail was probably the estuary of the Hutt and Waiwhetu Rivers.

Much of the fishbone recovered consisted of unidentifiable spines or vertebrae. Overall, only about 10% of the fishbone was identifiable to taxa or species level. Fishbone was identified by Dr Ian Barber (New Zealand Historic Places Trust) based on the usual five paired cranial bones and other special bones. Fishbones identified were:

Element	No: Side	Taxa	Context
inferior pharyngeal cluster	1	labrid	L4
erectile spine	1	leatherjacket	L4
premaxilla	1 right	moki	L4
dentary	1 right	red cod	L4
maxilla	1 left	snapper	L4

premaxilla	1 right	snapper	L4
premaxilla	1 right	barracouta	L1-3
dentary	1 right	labrid	L1-3
inferior pharyngeal cluster	1	labrid	L1-3
premaxilla	1 left	labrid	L1-3
erectile spine	1	leatherjacket	L1-3
dentary	1 left	mackerel	L1-3
articular	1 left	snapper	L1-3
dentary	1 left	snapper	L1-3
premaxilla	1 right	snapper	L1-3
maxilla	1 left	kahawai	piles, sample 1
premaxilla	1 right	labrid	piles, sample 1
quadrate	1 left	labrid	piles, sample 1
dentary	1 right	snapper	piles, sample 1
dentary	1 left	snapper	piles, sample 1
premaxilla	1 left	snapper	piles, sample 1
premaxilla	1 right	tarakihi	piles, sample 1
premaxilla	1 left	labrid	piles, sample 2
superior pharyngeal cluster	1 right	labrid	piles, sample 2
premaxilla	1 right	snapper	piles, sample 2
quadrate	1 left	snapper	piles, sample 2
premaxilla	1 right	tarakihi	piles, sample 2
superior pharyngeal cluster	1	labrid	spoil heap

Bird bone was identified by Dr Rick McGovern-Wilson (Bay of Plenty Conservancy, DOC) and checked by Alan Tennyson (Te Papa Tongarewa/Museum of New Zealand). Minimum numbers were calculated by Dr Colin Miskelly (Wellington Conservancy, DOC) based on the probably reasonable assumption that the samples are independent and that the bones of a single individual are not present in more than one sample. He notes that this is the first record of parakeet from the island, but red-crowned parakeet would be expected on an island of this size and location. Fluttering shearwater and diving petrel both probably represent former breeding colonies on Matiu, as the nearest known colonies are on islands in outer Marlborough Sounds and there is no local source for this material other than beach wrecks. These are the two petrel species most likely to have bred on Matiu. Penguin and spotted shag still breed on Matiu, and the bones confirm their historical presence on the island.

Bird bone	MNI	Context
Blue penguin (<i>Eudyptula minor</i>)	2	L4/piles sample 2
?Fluttering shearwater (<i>Puffinus cf gavia</i>)	1	piles, sample 1
Diving petrel (<i>Pelecanoides</i>)	1	piles, sample 2
Spotted shag (<i>Stictocarbo punctatus</i>)	3	piles, sample 2
Red or yellow crowned parakeet (<i>Cyanoramphus</i> sp.)	1	piles, sample 2

Artefacts

Two artefacts were recovered from Test Pit 1. A piece of worked bone (108 mm long and maximum 12 mm wide, tapering) was recovered from Layer 2. The bone is tentatively identified as being from a large, but not a flightless, bird on the basis of the thinness of the shaft wall. A piece of obsidian (21 mm x 8 mm) was recovered from Layer 4. It is olive green in transmitted light and Mayor Island is the likely source.

Dating

There are no definite clues to the age of Layer 4. Maori occupation of Matiu/Somes ended in about 1840. No modern items (glass, metal) were found in the undisturbed layers and the deposit has been sealed since 1918.

Conclusions

A large part of a midden was dug up and re-deposited nearby in 1918. A small part of the midden, which was buried under the front of a building terrace, was identified as being intact. The information that could usefully be obtained was limited to identification of some of the faunal contents of the midden. The investigation nonetheless provides a glimpse of prehistoric subsistence patterns on the island, although the age of the deposits has not been determined.

Acknowledgements

For identification of faunal remains I thank Dr Rick McGovern-Wilson (now at New Zealand Historic Places Trust), Alan Tennyson, Dr Charles Daugherty, and Dr Ian Barber (now at University of Otago). Dr Colin Miskelly calculated minimum numbers for bird bone and provided comments on the ecological relevance of the data.

Richard Nester, Richard Anderson (Wellington Conservancy, DOC) and Vanessa Tanner assisted with the fieldwork.

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