

Archaeological investigation of Aotea Estate Lots 29 and 30, Aotea

report to
Cooney Vosper Trustees Ltd
and
JG and LJ Tarbutt

Warren Gumbley and Jaden Harris
April 2006

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Introduction

Archaeological investigations were carried out on the 27th of March 2006 on Lots 29 and 30 of the Aotea Estate subdivision, Aotea Harbour. The investigation was carried out on behalf of the Cooney Vosper Trustees Ltd (Lot 29), and JG and LJ Tarbutt in accordance with the conditions of Authority 2005/273 granted by the New Zealand Historic Places Trust on 21 October 2005. The purpose of the investigation was to identify and record any archaeological features close to the pa (site R15/170) and to assess the possible impact on other archaeological remains of any future building activity on the Lots. The two sections are located immediately below the main part of the pa site, on its northern side, and it was expected that archaeological deposits related to the pa would be encountered, particularly in the parts of the Lots adjacent to the defences of the pa.

Method and Results

Lot 30

The main area focus of the investigation was along the boundary fence on the southern side of Lot 30, adjacent to the pa. Two trenches, approximately 1 m apart, were excavated parallel to the fence (Figure 1), with the topsoil being removed by mechanical excavator (Figure 2). In the lower trench a small patch of midden mixed into the lower topsoil (250–300 mm thick) was found, but did not continue across the width of the trench. In the upper trench the midden was more substantial; it covered a larger area and was also denser, and was roughly continuous for about 5 m (Figure 3). To determine the extent and depth of the deposit the trench was widened in this area with the aid of the excavator.

The midden was composed primarily of shellfish (some of them burnt) mixed with small pieces of oven-stone and charcoal. From general observation it was apparent many of the shells were very small. The midden had a varied consistency, with areas of sparse shell in the topsoil matrix alternating with more concentrated shell deposits. The base of the midden deposit was trampled into the clay subsoil (Figure 4). From about the 4.6 m mark (see Figure 3) the midden became decidedly more dispersed and faded away with a very thin scatter around the 6.5 m mark.

Lot 29

Two smaller trenches running down the hill in Lot 29 (Figure 2) did not reveal archaeological features. However, some shell midden was found at the upper end of the trenches. This was mixed into fill and was not in situ but, almost certainly, came from the midden exposed in the bank of the road a few metres away.

The small amount of midden uncovered in Lot 30 has limited archaeological value, providing some information about the economy of the pa's occupants, and about the local estuarine environment. The mixed nature of much of the midden may indicate that it represents a secondary deposition of the material, possibly through Maori earthworks associated with the construction of the defences. Samples of the midden were taken for analysis and this is discussed below.



Figure 1. Aerial photograph showing Lots and locations of the investigation trenches. Photograph K Jones, Department of Conservation.



Figure 2. Photomontage showing the archaeological investigations underway on Lots 29 (left) and 30 (right).

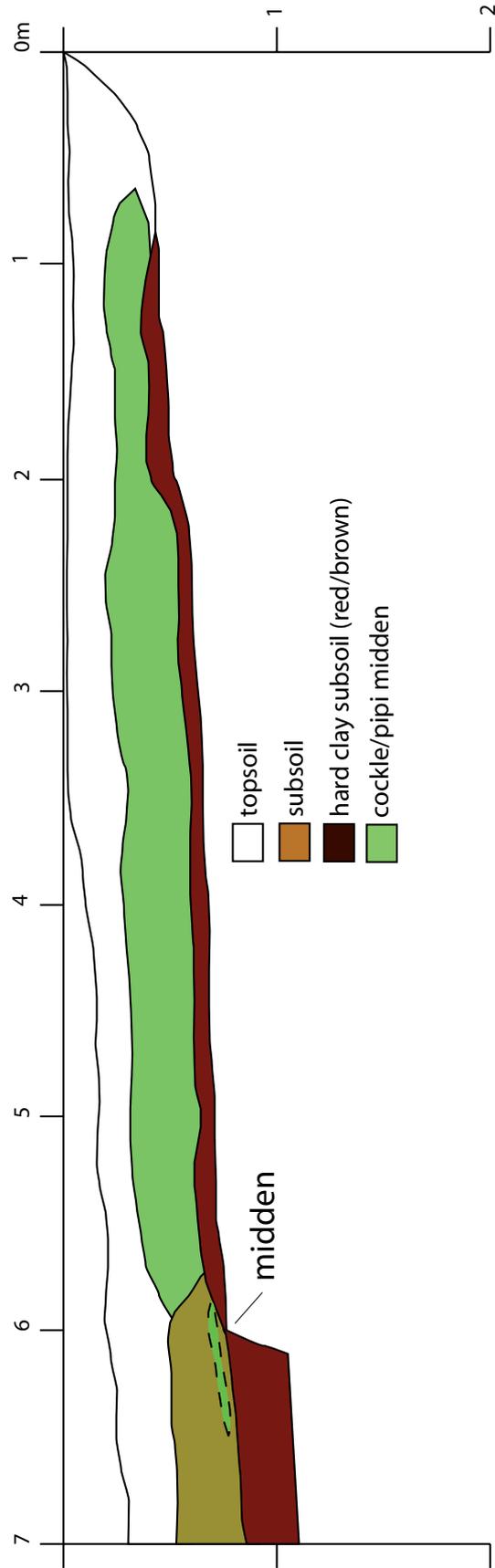


Figure 3. Photomontage drawing and profile of midden in upper trench, Lot 30.



Figure 4. Detail of midden profile. Note shell pressed into the clay subsoil.

Midden Analysis

Two samples of midden were recovered from the upper profile of the trench closest to the pa. In the field it was clear that the midden was composed almost exclusively of shellfish, primarily cockle (*Austrovenus stutchburyi*) and pipi (*Paphies australis*). Much of this shell was loosely dispersed with only a few minor concentrations. Small samples from two of these concentrated patches were collected.

The samples were sieved and then sorted according to species. Cockle, pipi and an insignificant number of small snail-like gastropods were the only species present. For bivalve species whole hinges were counted and this figure then divided by two to obtain an MNI (Minimum Number of Individuals). Further analysis involved measuring the maximum width of whole valves with callipers, to determine both the size range of the shellfish in question and the average size. MNI figures for the gastropods were determined by counting the number of whole or nearly whole shells and diagnostic portions such as the columella. No fish or other bone was identified.

Table 1. Shell fish counts and summary size statistics for midden samples.

	No. of valves	MNI	Size range (width) (mm)	Average size (mm)
Sample 1				
Cockle	479	240	9–26	18
Pipi	86	43	26–48	36.5
Small gastropods		15		
Sample 2				
Cockle	66	33	13–36	22
Pipi	147	74	27–29	38.7
Small gastropods		1		

All of the gastropods were very small, and so probably represent an incidental catch. Generally the midden was dominated numerically by cockles, approximately twice as many as pipi. However, while all of the shells (both cockle and pipi) may be described as small the cockles are noticeably small. The size of the shells suggests a less selective form of collection was used, such as a dredge.