

**Archaeological investigations of site Q07/1148,
Kowi Lakes, One Tree Point, Ruakaka:
final report**

**report to
Kowi Lakes Ltd
and
Surveyors North Ltd**

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Introduction

On 9 January 2006 an archaeological investigation was undertaken at site Q07/1148, a midden at the Kowi Lakes subdivision, One Tree Point, Ruakaka, under authority 2006/78 issued by the New Zealand Historic Places Trust under section 14 of the Historic Places Act 1993. The site had been recorded in May 2000 by Dianne Harlow as a 12 x 14 m deposit under pasture on the western side of a dune, extending down into the swale; it was not observed by her on the top or upper slopes of the dune. She located it by probing with a steel gum spear. The original intention was to protect the site as an 'island' in a storm water retention pond within a drainage reserve but during earthworks to excavate the pond the site was unintentionally damaged. During a site inspection in May 2005 only a surface scatter of shell was observed (Campbell 2005a) and it seemed probable that the site had been almost completely destroyed. The entire development site (Lot 1 DP 320790 and Lot 3 DP 327945) was surveyed in June 2005, with the ground probed with steel gum spears at 5–10 m intervals; no further archaeological sites were detected (Campbell 2005a).

Because of the level of damage to the site it was decided through consultation between Matthew Campbell, Surveyors North, the New Zealand Historic Places Trust and the Patuharakeke Trust Board that there was little point in retaining the island in the pond—a better course of action was to investigate the remaining midden, rescue the archaeological information and compile a damage and investigation report. Accordingly an authority to do so was sought from the Historic Places Trust. This work is reported here.

Methodology

As the site was so badly damaged the excavation strategy was designed to assess just what level of damage had occurred: ascertaining how much material remained in situ through shovel test-pitting and probing across the undisturbed top of the dune; exposing any remaining in situ midden material with a backhoe; mapping and photographing in situ material; recording the damage to the site; and sampling the midden for standard midden analysis and radiocarbon dating (in fact, so little remained (see below) that the process was greatly simplified—test-pitting was limited and backhoe stripping was unnecessary). The results would then be compared to other excavated middens from One Tree Point.

Results

Q07/1148 is one of many midden sites recorded at One Tree Point and around the Whangarei Harbour (Figure 1). Recent residential subdivision at One Tree Point has seen many of these sites subject to destruction, with the result that they have been investigated under various Historic Places Trust authorities (Bickler et al. 2005; Phillips and Harlow 2001; Plowman et al. 2006). Not all of these investigations have been fully reported yet, and it is too soon to attempt a comprehensive overview of the archaeology of the Point, but some patterns are emerging.

Essentially, the dune on which Harlow had recorded the site¹ had been trimmed down on all sides, leaving only the flat top, roughly 20 x 11 m, intact. (Figure 2). The midden recorded by

¹ The grid reference given by Harlow on the original site record form is incorrect, it should read E 2642000 N 6595960, i.e., 1000 m south of the grid reference given.



Figure 1. Archaeological sites recorded in the vicinity of One Tree Point, showing the location of Q07/1148.

Harlow had all been destroyed. Three shovel test pits, each approximately 600 mm deep, were dug on the western side of the dune top above where some scattered shell could be seen on the machine trimmed slope; no midden was found in the pits and the soil profiles showed no sign of any disturbance, only clean yellow sand beneath the topsoil. Rather than dig more unproductive test pits the whole top of the dune was probed with a 1.2 m steel gum spear on a close, ~1 m, grid. A midden measuring approximately 5 x 4 m was found on the eastern side of the dune top, close to the surface on the eastern edge, but up to 1 m deep towards the centre of the dune (Figure 2). The relationship between this small midden and the one recorded by Harlow is not clear and cannot now be recovered: they are very close together and may originally have been one deposit, separated by erosion of the shifting dune sand; or they may be two separate deposits. For the sake of convenience, both are recorded with the one site record number. The site was mapped by tape and compass (Figure 2).

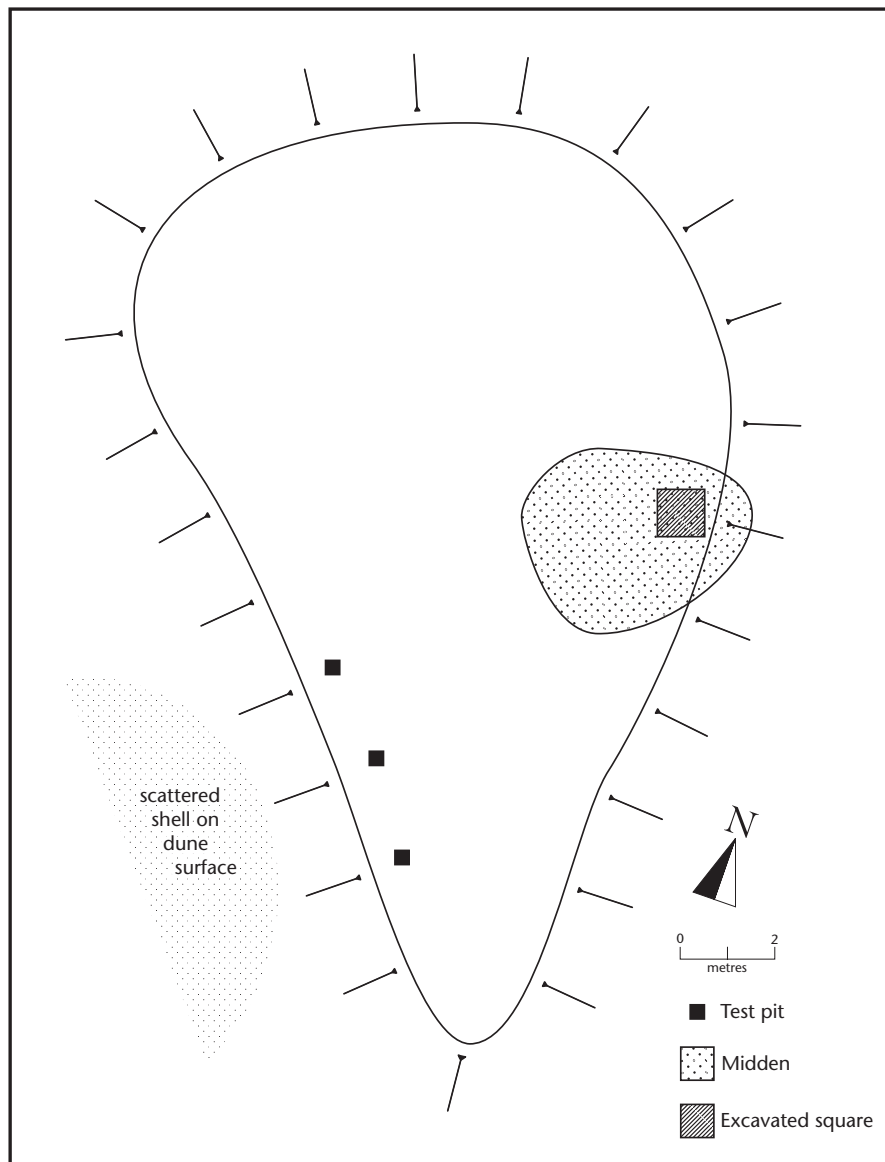


Figure 2. Plan of the undisturbed dune top, showing the location of the midden and excavation.

A 1 x 1 m square was opened up in the midden towards the edge of the dune top. Overburden was removed by shovel, and the midden was excavated by trowelling down to its base. A 10 litre midden sample was obtained and returned to the lab for analysis. The excavated part of the midden ranged in depth between 70 mm, on the outside (east) and 170 mm towards the centre of the dune (west) (Figure 3). The midden matrix was a black, charcoal stained sand, and beneath the shell layer was a 110 mm deep layer of sand stained black with fine charcoal. The sample also included some heat-cracked rock (hangi stone). The part of the midden excavated, though not necessarily the whole, was clearly associated with cooking, though in general the shell itself was not burnt.



Figure 3. West baulk of the excavated midden. Scale = 0.5 m (horizontal), 0.25 m (vertical).

Midden analysis

The midden sample was returned to the lab where it was wet sieved, air dried, hand sorted, and counted (but not weighed). Whole or nearly whole hinges of bivalves were counted. Left and right were not distinguished and MNIs (Minimum Numbers of Individuals) were calculated by dividing the total by two. Whole or nearly whole terminal spires of gastropods were counted. The results are given in Table 1.

Almost all the shell is of cockle, with other species making only a minor contribution. This is basically the same as the situation described by Phillips and Harlow (2001) at a series of middens excavated closer to harbour. Midden was not always counted by them but at some sites

Table 1. Counts of shell by species.

Species	MNI
Cockle (<i>Austrovenus stutchburyi</i>)	812
Pipi (<i>Paphies australis</i>)	3
Scallop (<i>Pecten novaezelandiae</i>)	1
Whelk (<i>Cominella</i> sp.)	7
Ostrich foot (<i>Struthiolaria papulosa</i>)	2
Unidentified bivalve	4

only cockle was found, while at others very little of any other species. Some fish bone—snapper (*Pagrus auratus*), kahawai (*Arripis trutta*) and shark (Elasmobranchii)—kiore (Polynesian rat, *Rattus exulans*), probable introduced rat and unidentified small bird were also found in very low numbers. Preliminary reports for other middens excavated at One Tree Point (Bickler et al. 2005; Plowman et al. 2006) also indicate the cockle is the predominant species. The species composition of the Kowi Lakes midden is typical of these other middens investigated at One Tree Point. The range of species present is probably limited by the local environment of the Whangarei Harbour, which, at One Tree Point at least, would seem to have been ideal for cockle.

Chronology

Fourteen cockle shells were submitted to the Radiocarbon Dating Laboratory at the University of Waikato. The result, Wk 18307, gave a conventional radiocarbon age of 673 ± 32 BP, which calibrates to AD 1530–1690 at 95% confidence interval.

Neither Bickler et al. (2005) nor Plowman et al. (2006) have obtained any dates for their excavations yet (Simon Bickler pers. comm. May 2006), but the date can be compared with those obtained by Phillips and Harlow (2001). They obtained seven dates ranging from, at a minimum, AD 1465 to a maximum of AD 1710, all much the same as the Kowi lakes date. For one site, Q07/1116, they observed at least six layers of shell separated by clean sand indicating a repeated occupation. They obtained dates from the upper and lower layers and ran a Bayesian analysis to test whether the occupations truly were separate. The results, though “generated using a small number [three] of radiocarbon determinations ... in some senses preliminary and requiring further testing” did indicate a time frame of 150–200 years for the accumulation of the entire site, and this period, or perhaps a little longer, would seem to be the length of time for the occupation of One Tree Point, or at least those occupations that resulted in midden deposition—other areas may have been used for other activities at other times that have not yet been detected archaeologically. These dates place the occupation of the site firmly in the later period of the prehistory of Aotearoa.

Discussion and conclusion

Q07/1148, as described here, is a small remnant midden, a rather minor and now badly damaged component of what is in fact a very extensive landscape of middens and associated occupations at One Tree Point. Many of these archaeological features have now been investigated, but not all have been fully reported yet. It is too early to attempt an overview of the archaeology of One Tree Point, though the results of the investigation will contribute to this exercise in the future. It is useful, however, to broadly compare the site to Phillips and Harlow’s investigations. Their sites were all closer to the harbour, and in general larger and more complex (though the full extent and complexity of Q07/1148 can no longer be determined). They found, in addition to midden, complex patterns and lines of postholes and stakeholes and pits of various sizes.

Further south on the point the land becomes increasingly swampy (now drained for European agriculture) and there appears to be little or no archaeological evidence (Campbell 2005b). This indicates a pattern of larger sites towards the harbour becoming increasingly smaller and less complex for perhaps 2 km inland. This pattern may or may not hold up to further testing.

The site fits in well to the general pattern of prehistoric occupation at One Tree Point, both in the midden contents and date of occupation. Future investigation should better be able to describe the relationships and contrasts between the sites at One Tree Point, how each occupation fits into the landscape and how One Tree Point fits into the wider landscape of Whangarei Harbour.

Acknowledgements

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References

- Bickler, S., B. Baquie and M. Plowman 2005. Authority pursuant to Section 14, Historic Places Act 1993, No 2005/209. Unpublished report to the New Zealand Historic Places Trust.
- Campbell, M. 2005a. Kowi Lakes development, One Tree Point, Ruakaka, Lot 1 DP 320790 and Lot 3 DP 327945: archaeological assessment. Unpublished report to Surveyors North.
- Campbell, M. 2005b. Archaeological assessment of 669 One Tree Point Road, Ruakaka. Letter to the New Zealand Historic Places Trust, Kerikeri.
- Phillips, C. and D. Harlow 2001. Investigation of midden sites at One Tree Point, Whangarei Harbour. Unpublished report.
- Plowman, M., G. Farley, N. Hill, S. Bickler and R. Clough 2006. One Tree Pt – Stage 1: Preliminary Report. Unpublished report to the New Zealand Historic Places Trust and Dannemora Ltd.