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BLOWING IN THE WIND: RESCUE EXCAVATIONS AT SITE N05/302, TAUROA POINT, AHIPARA, NORTHLAND

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Introduction

Tauroa Point, also known as Reef Point, is an extensive inter-tidal rock platform south of Ninety Mile Beach (Figure 1). In 1989 Department of Conservation staff surveyed the archaeological resources of Tauroa Point as part of the Ahipara Gumfields Stewardship Management Plan. In the course of carrying out this survey a number of sites were identified along the coast, mainly areas with fire features and concentrations of marine fauna (mostly shellfish) and sometimes evidence of stone working. Leigh Johnson, who carried out much of the survey, made particular note of two sites, N05/301 and N05/302, which appeared chronologically early based on the associated material culture. These two sites flank a small unnamed stream which would have provided fresh water, while a break in the inter-tidal platform at the mouth of the stream could have aided the ingress and egress of canoes.

In 1991 Johnson (1991) undertook excavations at Site N05/301, a flat coastal terrace with a deflated cultural layer on the surface, at the base of a moderately stable, grass-covered dune. Johnson established a grid over 112 m^2 of the deflated area and removed the cultural sediments in 2 m^2 units. He also trenched into an intact portion of the site where he identified a single ca. 10 cm occupation layer. The materials recovered were mainly stone artefacts, including small flakes, drill points and small adze rough-outs. There was little evidence of food preparation or consumption and Johnson suggested such activities may have taken place at the second site, N05/302, across the stream. The recovery of a Duff Type 4A adze rough-out, along with a broken bone reel bead, suggested an early age for N05/301. This idea was further substantiated

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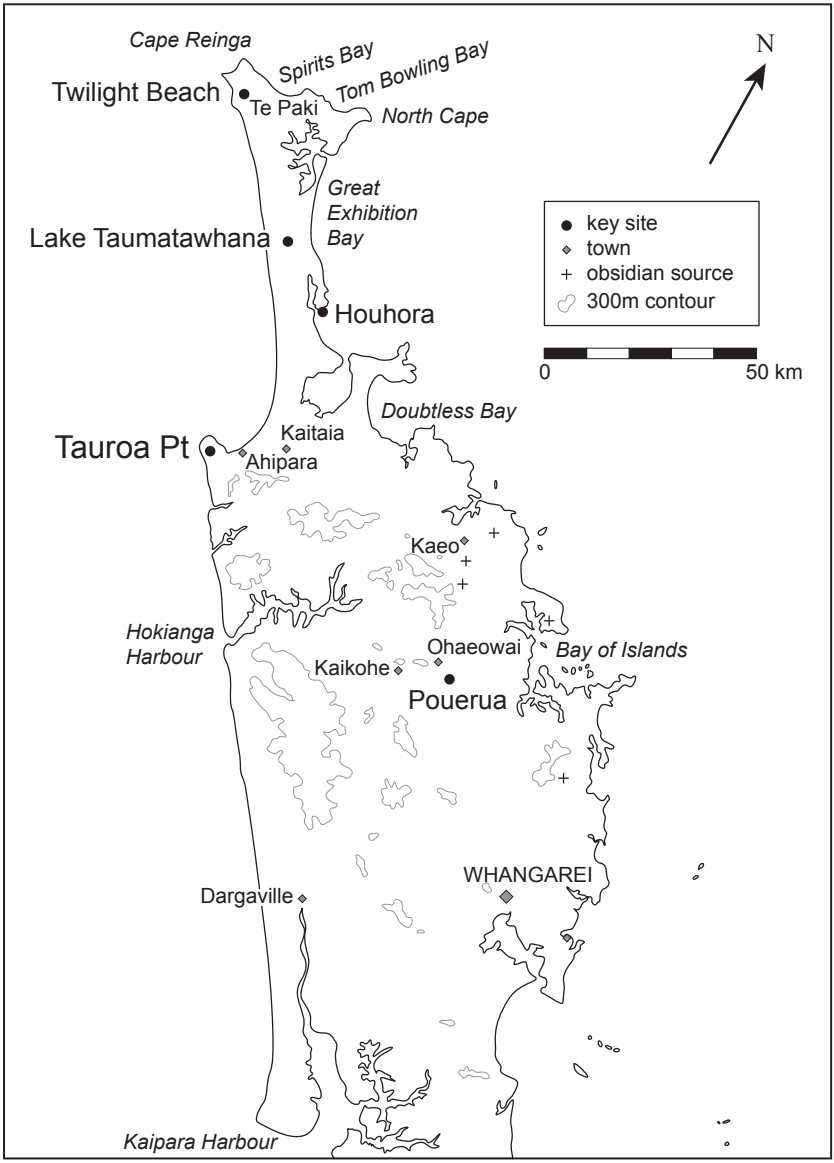

Figure 1. Location of Tauroa Point (adapted from Davidson 1982, Figure 1.1).

by two radiocarbon determinations, which placed the occupation in the 15th century AD. Johnson (1991) suggested that the site probably represented a seasonal fishing camp.

As a result of this work, DOC staff became increasingly interested in N05/302. Located part way up the dune slope, the early occupation here was preserved in a small knoll or hummock, from which there is a commanding view of both the immediate coast and areas to the north. In 1992 DOC staff carried out rescue excavations at this second site, which was suffering from wind erosion, four-wheel drive traffic and trampling by cattle. These collections are now being analysed by students and staff at the University of Auckland in conjunction with material from more recent work at this and other sites on the Tauroa coast in 2003 (Allen et al. 2005; Allen in press). Key findings from the 1992 field study are summarised here, preliminary to more specialised analyses that are currently underway.

Background

Field work at Site N05/302 was carried out from 25 March–8 April 1992 by a team of DOC archaeologists along with University of Auckland students. Among the main participants were Leigh Johnson, Joan Maingay, James Robinson and Adrienne Slocombe. Local kaumatua visited the site while the excavation was in progress, including Simon Snowden who recalled camping on the site as a child in the 1920s (Joan Maingay, James Robinson pers. comm. 2006). Commencing in autumn, the field conditions were often harsh with strong winds and sometimes driving rain; Maingay noted that as much as 50 cm of deposit was lost during one particularly windy day. Simon Snowden also observed that the site had extended much further towards to the sea when his family camped there in the past.

Mapping

At the outset, a contour map was made of the general site area, also recording the spatial extent of eroded cultural materials. The focal point of the excavation, a hummock, is reproduced in Figure 2. To the east of this main area of intact cultural sediments was a large mound, a feature which was still largely intact in 2003. Covered in rocks, oxidised and cracked by heat, the feature is most likely an oven or hāngi which has withstood erosion.

In addition to illustrating the hummock as seen in 1992, Figure 2 also shows the erosion scarp exposed in 2003. This was cleaned back in 2003 to expose in section a large feature first tested in 1992 (see discussion below). New radiocarbon samples were taken from a charcoal lens near the base of this feature, one of several superimposed and sometimes inter-cutting charcoal lens.

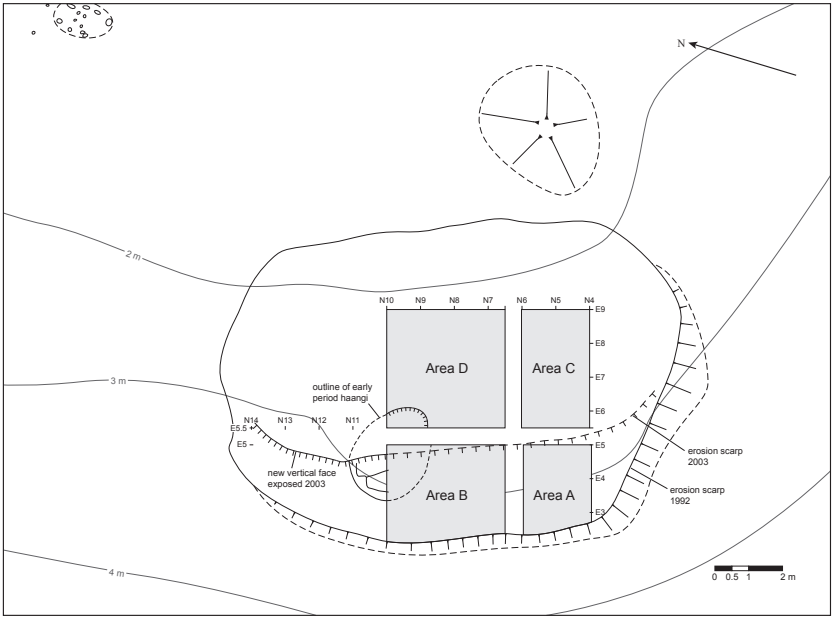

Figure 2. 1992 map of Site 302 hummock, with the erosion scarp exposed in 2003 added.

Preparatory to the 1992 excavations, a roughly north–south oriented grid was laid over the main site area. Grid lines were set at one meter intervals, with those running west–east designated E2 through E9 and those running north–south designated N10 through N4. Excavators worked in one meter wide trenches, removing sediments in 50 by 50 cm squares or subunits (Figures 3 and 4). Two 50 cm wide baulks were maintained as well, one east–west baulk, the other north–south (see Figure 2). At the conclusion of the excavation, six 6 m long profiles were drawn, of which three are provided here (Figures 5 and 6).

Excavation Procedures

The excavation area, including the baulks, measured ca. 6 by 6.5 m, a total area of 39 m^2, but the actual area from which sediments were removed was closer to 34.75 m^2. To assist the excavation process, the excavation area was divided into four quadrants, labelled Areas A–D (see Figure 2). Excavation notes were recorded in three field books (labelled Books A through C), which are referenced below, along with the appropriate page numbers.

Figure 3. Excavation in progress (photo Stuart Bedford).

Figure 4. Joan Maingay excavating a feature (photo Stuart Bedford).

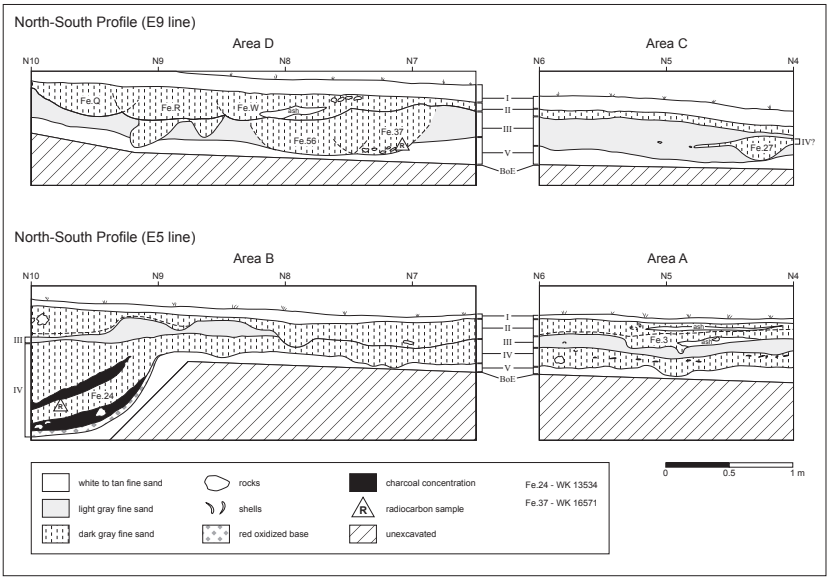

Figure 5. Baulk profiles along E9 (top) and E5 (bottom) grid lines. Dating of Feature 37 indicates an association with the upper cultural layer.

The excavation was stratigraphic, following the natural site stratigraphy. Vertical measurements were usually taken as "below ground surface", with the baulks often being used as measurement surfaces (Book B: 18, 20–21). According to the field notes, the excavated sediments were wet sieved and "bone, stone flakes, and occasional unusual species" (the latter possibly referring to shell) were bagged (Book A: 2). The notes also indicate that the plan was to collect 50 by 50 cm representative or whole samples from the northeast corner of each unit. As these "total samples" were screened in the field (Book A: 10, 14, 16), they are not bulk samples per se. Sediments from the remaining areas were water-screened using 5 mm mesh (Joan Maingay, James Robinson pers. comm. 2006).

Features were generally excavated, sieved and their contents bagged, separately. The first few features in the excavation books are not identified by unique determiners but shortly thereafter, an alphabetic labelling system was established. Once all 26 letters of the alphabet had been used, features were numbered sequentially, as encountered. A total of 87 features were identified. In some cases "total samples" were taken from features.

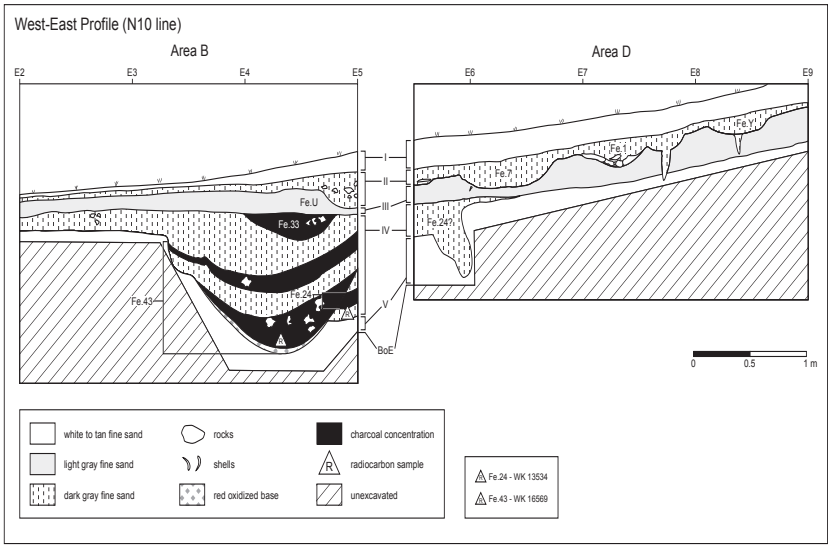

Figure 6. Baulk profile along N10 grid line, Areas B and D. Note how the lower cultural unit pinches out on the upslope (eastern end of the profile). In 2003, Features 24 and 43 were re-exposed and additional radiocarbon samples taken.

Findings

Stratigraphy

In the course of excavation, a total of five layers were observed, two cultural and three natural (Figures 5 and 6). The hummock was capped by recent wind blown sand, which varied in thickness from 5 to 15 cm (Layer I). The upper cultural layer (Layer II), averaging between 5 to 15 cm in thickness (excluding features), consisted of black to dark grey sandy soil with an abundance of shell and bone. In places the sediments were described as "black greasy sand." Numerous features were identified in this layer and several inter-cut one another. Of note are two features in Area B (Book B: 21) that were recorded as cutting into Layer II, suggesting that the site may have been occupied after deposition of Layer II. However, if this was the case, then the remains of this later occupation were largely eroded prior to the deposition of the Layer I dune sands.

The upper cultural layer (Layer II) was usually separated from the lower cultural layer (Layer IV) by a 10 to 20 cm thick stratum of dark, char-

coal-stained, but otherwise generally culturally sterile, sand (Layer III). One excavator noted that this sterile layer contained the occasional large shell, charcoal chunk, and even a few adze flakes (Book B: 21), but presumably these materials had been vertically displaced. In some areas Layer III was altogether lacking and the two cultural layers rested directly on one another (see Figure 5).

Layer IV, the lower occupation layer was best represented in the downslope, western half of the knoll, and lacking in the upslope, eastern portion. Layer IV varied from 10 to 20 cm in thickness. As with the upper cultural layer features were common here. Maingay commented in the field notes that the artefacts were largely associated with Layer IV, while Robinson suggested that as much as 95% came from this lower cultural layer. Sterile dune sands (Layer V) underlay Layer IV.

Age Determinations

Three shell samples were submitted by DOC staff to the Waikato Radiocarbon Laboratory in the 1990s (Prior Samples in Table 1). A single shell sample from the lower cultural layer gave a date of cal AD 1300–1480 at 2 sigma, roughly the late 14th century. A second shell sample from the upper cultural layer indicated a post-16th century AD age, while a third provided a post-1680 AD date.

More recent analyses on wood charcoal (New Samples in Table 1) have confirmed these initial findings (Figure 7). As noted above, in 2003, a large feature partially excavated in 1992 (Figure 6) was re-exposed (see Allen et al. 2005 for details). This feature appears to represent at least two separate ovens. The earliest oven consists of two successive charcoal lenses (Feature 24 in Figure 6), suggesting two main use episodes. The second oven cuts into the first and consists of three successive charcoal lens (Features 43 and 33 in Figure 6). A sample from the basal-most charcoal lenses (identified as Feature 24 in 1992 and Feature 88 in 2003) returned a date of cal AD 1220–1390 at 2 sigma (WK-13534). The age range is slightly earlier than that of another sample (WK-16569) taken from the middle charcoal lens of the stratigraphically superior oven (Feature 43 in Figure 6). The overall morphology of these features is a single large basin, as seen in cross-section, suggesting that there is probably not a lot of time between each firing event or charcoal lens. At the same time, the fact that the lenses which comprise Feature 43 truncate those of Feature 24 suggests some temporal differences.

A 1992 sample from Feature 37 (WK-16571; see Figure 5, Area D) was also recently submitted in an effort to determine its chronological association. The 1992 field illustration of Features 37 and 56, below Layer II, suggested

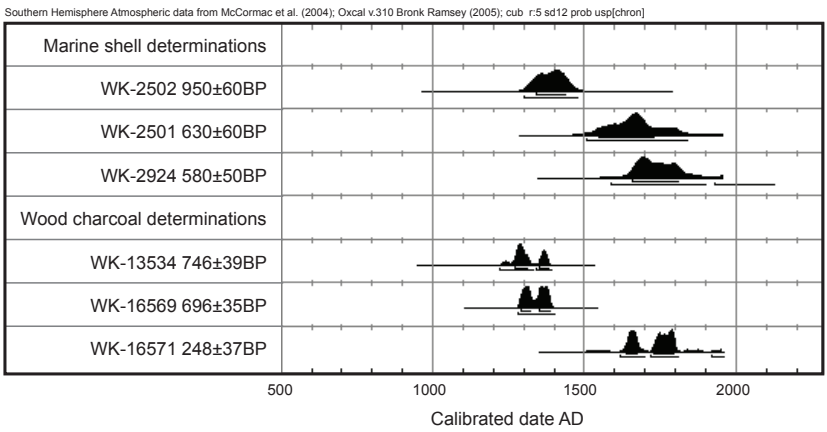

Figure 7: Summary of radiocarbon determinations (see also Table 1).

that they might be distinct from, and possibly predate, the Layer II occupation. However, the date for Feature 37, cal AD 1620–1960 at 2 sigma, indicates this fire pit cannot be distinguished from other Layer II materials on radiometric grounds and presumably the same holds for Feature 56.

Artefacts and Fauna

A number of artefacts were recovered in the 1992 excavations. While detailed study of these collections is in progress, some preliminary observations are possible. The assemblage is dominated by simple flakes, drill points and stone files such as those shown in Figure 8. The raw materials mainly include cherts, obsidian and basalt, but a number of other stone materials are also present (Phillipps 2003: Figure 9). Johnson (1991) previously reported use of a variety of local stone types at N05/301 across the stream, including basalt adzes and flakes of chert, sinter and, less commonly, obsidian and petrified wood. At N05/302, at least some of the tools were used in on-site fishhook production, as a few pieces of hook manufacturing debris (Figure 10) and a small number of large finished bone fishhooks were recovered (Figure 11). As noted above, the artefacts derive mainly from the lower cultural layer.

Detailed study of the N05/302 fauna is also still in progress, however the field notes and initial laboratory observations allow for preliminary comments. Shellfish are quite common in the upper cultural layer, with Paua (*Haliotus* sp.) and Ataata (*Turbo smaragdus*) being among the more prominent components. Other shellfish noted in the 1992 records include mussels, *Cellana*, sea urchin, several species of bivalve, and chiton. While most of

Table 1. Radiocarbon determinations from Site N05/302.

Sample No.	Material[1]	Provenance	$\delta^{13}C$ (‰)	Conventional RC Age BP	Calibrated Age Range (2 sigma)[1]
Prior Samples[2]					
WK-2502	*Turbo smaragdus*	Site 302, Feature 36B	*2.7*	950 ± 60	AD 1300-1480
WK-2501	*Turbo smaragdus*	Site 302, Sample 1?	*3.0*	630 ± 60	AD 1520-1840
WK-2924	*Austrovenus stuchburyi*	Site 302	*3.0*	580 ± 50	AD 1630-modern
New Samples[3]					
WK-13534	*Leptospermum ericoides*	Site 302B, Layer IV, Feature 88, Acc. 946 (collected 2003),	*-25.9* ± 0.2	746 ± 39	AD 1220-1390
WK-16569	*Leptospermum ericoides* *Myrsine australis*	Site 302B, Feature 43 (collected 1992)	*-25.3* ± 0.2	696 ± 35	AD 1280-1400
WK-16571	*Various short-lived species*	Site 302B, Feature 37 (collected 1992)	*-25.5* ± 0.2	248 ± 37	AD 1620-1960

[1]All samples were calibrated using OxCal 3.10 (Ramsey 2005) and the Southern Hemisphere calibration curve ShCal 04.14c (McCormac et al. 2004). For shell samples, the New Zealand ΔR regional mean of -7 ± 11 years from the Marine Reservoir Correction Database (Reimer 2005) and the marine calibration curve "Marine 04.14c" (Hughen et al. 2004) were used.

[2]Results for "Prior Samples" were provided by the University of Waikato Radiocarbon Dating Laboratory. The specific proveniences of these samples is not known.

[3]The "New Samples" were run by Allen following transference of the 1992 collections to the University of Auckland. Prior to submittal, the wood charcoal of these samples was identified by Dr. Rod Wallace and long-lived species removed.

Figure 8: Examples of drill points made from varied raw materials. Photo Tim Mackrell.

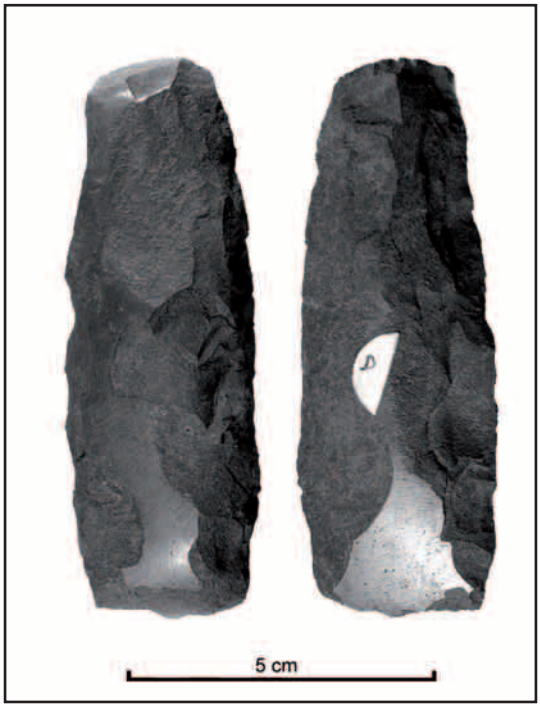

Figure 9. Basalt adze (front and back views). Photo Tim Mackrell.

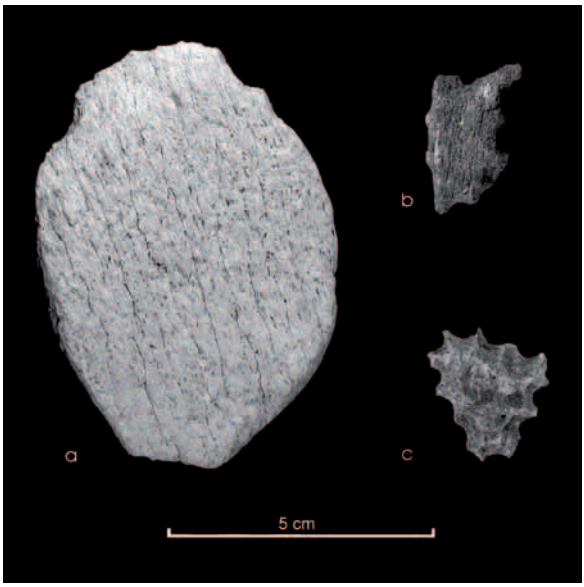

Figure 10. Bone fishhook blank (a) and manufacturing debris (b, c). Photo Tim Mackrell.

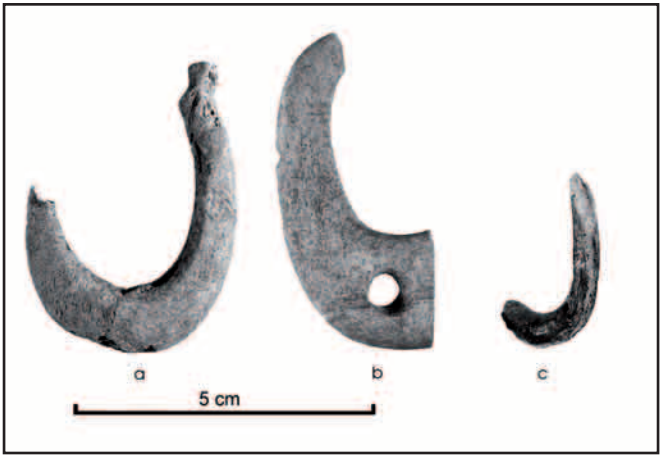

Figure 11. Fishhooks: (a) bone one-piece hook; (b) bone two-piece hook point; (c) shell one–piece hook. Photo Tim Mackrell.

these are consistent with the rocky habitat found here, the bivalves include soft shore species. Fish, particularly snapper (*Pagrus auratus*) and wrasses (Labridae), are also well represented. The fauna of the lower cultural layer contrasts with that of the late cultural occupation in that more faunal classes are present. In addition to fish and shellfish, dog, large bird (probably mollymawk or *Diomedea* sp.), seal and probable whale are represented in the lower layer.

Features

Around 87 features were identified in the ca. 35 m^2 excavation area (Table 2). Fire features dominated, with both large oven-like features and small, presumably open hearths being represented. Of particular note is the very large oven feature(s) first exposed in 1992 and cross-sectioned in 2003 (Figure 6). Additionally, postmolds of variable sizes were identified, along with a few distinctive concentrations of shell. While a roughly equal number of features were found in the two cultural layers, there were three times the number of hearths and ovens in the upper layer (Layer II). Although there are many potential explanations, this may indicate that different kinds of cooking and food preparation are represented in the two occupations. It could also be that early coastal visitors, encountering readily available fuel sources, preferred large earth ovens over smaller open cooking features.

Table 2. Features by type and layer based on the 1992 field records.

	Layer II	Layer IV	Undetermined	totals
hearths	24	10	0	34
ovens	6	3	1	10
postmoulds	5	26	0	31
other	3	6	3	12
totals	38	45	4	87

Another difference between the features of the two cultural layers was the greater number of small postmolds reported for the lower cultural layer. Generally around 10 cm in diameter, in many cases they did not become apparent until the underlying sterile subsoil was reached. Maingay (1995) suggested that these small postmolds, along with a dense layer of ash near the base of Layer IV and abundant fish bone, might be evidence of fish drying/preservation activities.

Conclusions

This brief report summarises the main field findings of the 1992 DOC excavation at Site N05/305, Tauroa Point. The salvage effort by DOC staff

resulted in a substantial sample (ca. 35 m^2) of two cultural strata, including an Archaic occupation that probably would have been lost to erosion, as little of this early layer remains intact today.

Initial use of the area dates to the early 14th, or possibly even the 13th, century AD. The occupation is characterised by a variety of artefacts, largely related to fishing (e.g., bone hooks), production of fishhooks (e.g., drill points), and other activities requiring small knife-like tools, most likely plant and animal processing. These varied artefacts, along with a diverse fauna, and at least one feature which evidenced repeated use, suggest that this occupation was functionally more varied and of longer duration relative to later use of the area (Allen in press). The repeated use of at least one feature suggests either an occupation of some duration (a summer?) or use of the site over a few seasons, with the former being considered more likely.

Occupation of the dune slope resumed several hundred years later, with the upper cultural layer dating to the post-16th century AD. The late occupation was focused on gathering of shellfish and fishing. Far fewer artefacts were recovered in this upper cultural layer, but hearth and oven features were more numerous.

Detailed analysis of the 1992 artefacts, fauna and wood charcoal assemblages is now underway and comparisons will be made not only between the two occupation layers but also with the other occupations along this coast investigated in 2003 (Allen et al. 2005; Allen in press). Although a number of early Maori sites are known for Northland, only a few, such as Houhora (Anderson and Wallace 1993; Furey 2002) and Twilight Beach (Taylor 1984), have been the subject of significant excavation and intensive laboratory study. In light of this, the sizable DOC sample from Site N05/302 is an important archaeological resource which stands to give new insights into aspects of early Maori settlement and resource use in the Northland area, as well as the environmental context in which they lived. Were it not for the foresight of the DOC staff of the time, the "answers" might be blowing in the wind.

Acknowledgements

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