

Introduction: Why we should be interested in ancient fishing

In the Annual Review of Anthropology for 1981, James Acheson of the University of Maine wrote a lengthy review of *The Anthropology of Fishing*. In this, he posed the question:

What are the major contributions of maritime anthropology? Some anthropologists say there are none, and that such studies have nothing in common but water... Bernard [1976], for example, argues that "maritime anthropology" is "far-fetched" in that it has no focus and has produced few "generalisations increasing our understanding of man." Studies in this field, he claims, could better be classified as "plain old ethnology, archaeology, linguistics, or physical anthropology with no loss of generality" (Acheson 1981: 275).

These are damning criticisms indeed; and clearly Bernard does not have much time for plain old ethnology, archaeology, linguistics, or physical anthropology, subject matter which I for one have always found interesting and which in my view has contributed quite a lot towards a better understanding of humankind.

Acheson went on to show that Bernard's view is extremely shallow and that there is considerable potential in the anthropological study of fishing. He drew from published literature on fishing from communities in such places as Canada, Sweden, Mexico, Sri Lanka, Ecuador, and Ghana; but apart from a passing reference to Malinowski's study of the Trobriand islanders in 1920, Pacific island fishermen¹ were essentially ignored in his scholarly review. The failure to incorporate marine resources and associated fishing behaviour in anthropological studies of human societies has been widespread. Similarly, it is only relatively

recently that there has been discussion about, and recognition of, the importance of aquatic environments in hominid evolution (e.g., Roede *et al.* 1989; Morgan 1994, 1997) and of marine and freshwater resources in the emergence of *Homo sapiens* (Parkington 2001).

The New Zealand Māori, with whom most of this volume is concerned, are Polynesian in their language, culture and heritage. They migrated from Polynesia between 800 and 1,000 years ago. The tropical Pacific is therefore the broader culture-historical context in which pre-European Māori culture is best understood.

It has always seemed to me somewhat odd that until quite recently anthropologists gave very little attention to fishing in the Pacific region. Fishing is amongst the most important of all aspects of modern and prehistoric² life in the Pacific, and to try to understand how a society functions on an atoll, for example, without fully appreciating the role of fishing is plain folly. The same is surely true for all Polynesian societies, including the New Zealand Māori. Yet the classic works of Pacific Anthropology, such as those by Malinowski and Firth, deal in great depth with many aspects of social organisation and ritual and scarcely at all with fishing behaviour. This makes it difficult for archaeologists studying fish remains to understand the wider social and cultural contexts in which fishing took place.

On the other hand, a modern anthropologist could possibly be forgiven for the relatively minor

² The term 'prehistoric' has no emotive connotation amongst scientists, and has the technical meaning of human societies who do not have written historical records. Unfortunately, for the general public the term can have a somewhat derogatory sense of something inferior or outdated. To avoid giving unintentional offence, the term 'prehistoric Māori' or 'prehistoric Polynesian' is nowadays often replaced by the term 'Pre-European', which is an attempt at political correctness. Personally I prefer the term 'prehistoric', because its meaning is unequivocal, and to me the term 'pre-European' elevates the arrival of Europeans to an undeserved status, since it was so frequently accompanied by devastating effects on indigenous people. However, to avoid any disrespect, I liberally use the term 'pre-European' in this paper.

¹ In Polynesian society generally, and Māori society in particular, there was clear division of labour. In the case of fishing, this was almost always the domain of men, especially activities that involved a canoe or use of fishing lines, hooks etc. Women's fishing activities were confined to foraging by hand in shallow water, and gathering shellfish and perhaps some small fish, and probably crayfish. For this reason therefore the term *fisherman* is consistently used throughout this paper in recognition of this gender specific division of labour in fishing activities.

attention given to fishing behaviour. It is a subject field with certain difficulties –we are all familiar with the notion of the extravagant fish story in European society; indeed the very word *fish* itself is used to connote something unreliable or not quite right. Phrases like *fishy* and *odd-fish* or *fish-ball* spring to mind. Fishing is one of the most important domains of the apocryphal story, and it would be wrong to think that twentieth century European fishermen have a monopoly on fishy folk tales³. Baucke once remarked that the Moriori of the Chatham Islands excelled in the art of fishing for lobsters, and that:

a diver who appeared with three –one in each hand, and one held by the antennae between the teeth, was acclaimed *tchim' tchakat' me' kye* (Baucke 1928: 360).

This curious phrase from the incompletely recorded Moriori language is thought to be equivalent to the Polynesian *tenei tangata mahi kai*, meaning a 'food provider of renown'. It stretches credulity to think that a Moriori was ever actually seen with a lobster in his mouth and one in each hand⁴, but despite such an exaggerated claim there can be no doubt that fish is and has always been an important source of food for Moriori, Māori, and more generally for Polynesians throughout the Pacific world. The phrase *tenei tangata mahi kai* or 'food provider of renown' could equally apply to the fish as well as the fisherman.

Archaeologists working in New Zealand and the Pacific have been just as remiss as their colleagues in social anthropology in paying far too little attention to fishing in traditional Polynesian societies. One reason is probably the lack of comparative osteological material by which archaeologists can identify the types and quantities of fish which prehistoric people were catching. Fortunately, this problem has now been largely overcome. There are now good comparative collections of bones in archaeological laboratories at the University of

Otago and the Archaeozoology Laboratory at Te Papa Tongarewa, the Museum of New Zealand.

Another reason for this relative dearth of knowledge about ancient fishing is that many archaeologists and anthropologists have focused on the artefacts of fishing at the expense of fish actually caught. Museums around the world have substantial collections of both ethnographic and ancient fishing equipment from New Zealand and the Pacific and these have contributed to an overemphasis on artefacts. Archaeological examples of fishhooks, particularly, have often been considered more important as types in chronological sequences than as actual pieces of fishing technology. A typical example is the series of excavations at South Point on the island of Hawai'i. The archaeological deposits consisted of dense midden refuse built up over a substantial part of Hawaiian prehistory. Fish bone is hardly mentioned in the excavation report, but considerable attention is given to pearl shell fishhooks, which were also abundant in the site. A chronology of Hawaiian prehistory has been proposed, based on these fishhooks. What people were actually doing with the fishhooks is curiously overlooked.

These two reasons, one a practical consideration and the other a matter of proclivity, still seem to me to be inadequate justification for paying so little attention to what I think is of paramount interest and importance to so many Polynesian societies. These people are fishermen. On small islands they are surrounded by the sea. There is no escaping the sound of the sea or its influences in everyday life. It is a major source of food and recreation. The forces of nature are made known to islanders through the sea. One can swim in it, dive into it, catch fish from it, paddle canoes over it, come to understand its diverse moods, come to know the boundless life it contains; just about the only thing one cannot do with it is drink it. For Polynesian people the sea is about as important as the coconut tree.

In the past few years the lack of European knowledge about how fish and fishing are integrated into life in the Pacific region has slowly been redressed with publications by people like Bob Johannes with *Words of the Lagoon* (1981), at long last revealing the full depth of folk lore and knowledge which Pacific people possess of life in the sea.

Why should we be interested in ancient fishing? Perhaps the most compelling reason is that fishing is amongst the most important things in

³ Evidently Benjamin Disraeli had no experience of fishing when he passed the immortalised comment that "There are three kinds of lies: lies, damned lies and statistics".

⁴ It is interesting that Peter Buck (Te Rangi Hiroa) referred to this yarn in 1926. He states "Experts [he claims these were women] emerge from a dive with a crayfish in each hand, and some are said to come up with a third crayfish in the mouth, where presumably it had been transferred by hand" (Buck 1926: 629). Buck read this paper before the Auckland Institute 25 November 1924 (Buck 1926: 597), and Baucke originally published his observations about Moriori in the *Auckland Herald* in 1923 (Skinner 1928: 355).

the life of Pacific peoples. It is primarily the domain of men; if they are not actually out at sea fishing, they are likely to be found in the men's house or canoe shed talking about fishing, sharing stories and fish-lore, preparing fishing line, repairing nets, building canoes, or experimenting with new fish hook forms. When an archaeologist visits a remote Pacific island community and starts digging up old rubbish dumps, the local workforce normally take part with a sense of bemusement; however, as soon as it is pointed out that it is possible to shed light on what kind of fishermen their ancestors were, the whole attitude changes to one of intense interest and enthusiasm. If the descendants of the 'people who came before' think it is important to learn about ancient fishing, then that is a good reason for archaeologists to respond to this.

There are many other reasons too why we should be interested in this field. One is that it provides us with insight into the subtleties of human/environmental interactions. By studying trends in fish catches over long periods and teasing out the separate factors which combine to make up these changes, we can start to see the influence of human predation on marine resources. This provides an important baseline for modern marine resource management activities. Fish are also important bio-indicators. Fish remains from dated archaeological deposits may be able to contribute evidence about past climatic fluctuations. Better documentation of such events, in turn, may help to understand aspects of human migration and adaptation in the Pacific islands.

Archaeological evidence about ancient fishing activities is now being used to address the catastrophic state of the present-day world fishery. A programme of research called *Back to the Future*, based at the University of British Columbia, "seeks to solve the fisheries crisis by employing past ecosystems with sustainable, clean fisheries as policy goals for a restored future" (Pitcher & Ainsworth n.d.: 1). They model biomass changes through time with a series of snapshots back to A.D. 1450 (Pitcher & Ainsworth n.d.: 3) using archaeological data provided by Heymans (2003). Heymans considers archaeological evidence back as far as 3,500 B.C. in his reconstructions. A larger, multi-disciplinary, 10 year project, *HMAP (History of Marine Animal Populations)* also draws extensively on archaeological data, particularly from Europe and North America. New Zealand has yet to follow these important initiatives.

Another aspect of this problem is that the quest to rejuvenate the past marine ecosystem has become strongly enmeshed in the politics of indigenous rights. Many indigenous peoples, whose past economy included significant exploitation of marine resources, are now experiencing difficulties because they are no longer able to maintain this aspect of their cultures. The deplorable state of the New Zealand fishery and the effect this has had on rights guaranteed under the Treaty of Waitangi have been the focus of much evidence presented to the Waitangi Tribunal. Although some redress has been granted relating to the commercial fishery, there has been little attention given to customary rights until now (Leach 2003). It is important to gather quality information about the fishery past and present to help resolve this issue.

In 1967 Fred Reinman attempted a summary of what was known about ancient fishing in the Pacific region with his publication *Fishing: an aspect of Oceanic economy, an archaeological approach*. He made the comment of New Zealand:

Perhaps more digging has been done here than in any other area of Polynesia, but despite this there are apparently no published accounts of an analysis of midden constituents which can provide us with statistical data on the frequency and weight of food remains. Many of the reports contain an enumeration of the remains—often in the form of a list beginning with the most prevalent kinds to the least so [This evaluation is often a visual one, made by the excavator, rather than on the basis of excavated samples]⁵—but these cannot be used except to make statements about the presence or absence of shellfish in the diet (Reinman 1967: 172).

This criticism could, 39 years later, still be levelled at a large number of archaeologists working in both New Zealand and the tropical Pacific. I take the view that each archaeological site is a precious gift from the past. It should be seen as a rare privilege to be given permission to disturb it, and if it is excavated then *all* the remains it contains should be studied with the best possible research tools currently available, because once it is taken apart the original integrity is lost forever. What started out as an ancient rubbish dump and a valuable source of knowledge has become an archaeologists' rubbish dump consisting of hopelessly tangled objects, removed from their original chrono-

⁵ Reinman added the sentence here enclosed in square brackets as a footnote.

logical and social context. If archaeological sites cannot be afforded the highest quality excavation and study, for whatever reasons of expediency, then they should be left alone.

The purpose of this paper is to summarise what we currently know about fishing in pre-European New Zealand. In the last 30 years the fish remains⁶ of a significant number of archaeological sites in

New Zealand have been carefully studied, and in some cases re-studied. Not all of these collections were made with modern scientific techniques in mind, and they are therefore of variable quality. However, we do the best we can with such samples, and give special attention to those collections which are large and were extracted using unbiased sampling strategies.

⁶ This paper is primarily concerned with bony fishes and cartilaginous fishes (sharks and rays), but in places some attention is also given to other marine animals, such as crayfish, sea mammals, and molluscs.