WISDOM OF THE OCEAN

GLENN EDNEY

The far-flung islands of the South Pacific were the setting for the last great migration of humans across the surface of the planet- it was the first in the history of our species to involve ocean voyaging beyond near horizons. The enormous distances between the tiny specks of land dotted sporadically across the surface of this vast ocean required an evolution in water craft design and the development of a new knowledge system: ocean navigation. We know surprisingly little about the development of this new knowledge system - how long did it take to develop sufficiently for successful voyaging? How many vessels were lost along the way? How did the early voyagers share their knowledge? We understand so little because these early explorers left few clues for the archaeologists of the future to decipher. The discovery of distinctive 'Lapita' pottery fragments from this period finally provided researchers with a trail to follow. What that trail revealed was that the migration across the South Pacific didn't just happen by accident or chance. Indeed, by about 1100BCE it seems that ocean navigation had reached a level of sophistication that allowed for return voyages over many hundreds of nautical miles.

How did this navigational knowledge system develop and spread so quickly? Was there some kind of nonlinear process involved that enabled the spread of this knowledge over such vast distances? Perhaps the knowledge of how to navigate the ocean was already there, in the ocean itself. Many other beings: whales, turtles, sharks, tuna, migrate thousands of miles with pinpoint accuracy and have for millions of years. They all seem to access the same navigational knowledge through mediums such as magnetic fields, ocean currents, moon phases, sound waves, chemical signals and physical sign posts like underwater mountain ranges and deep ocean trenches. And yet each species has developed their own unique navigational practice appropriate to their needs. Was this also the process of Oceania's human navigators?

As a modern ocean sailor, who relies on technology to navigate, these questions fascinate me. I have been sailing and working as a marine naturalist and conservationist in the South Pacific for twenty years and more recently my studies have focused on the traditional ecological knowledge of this region, in particular, the Solomon Islands and Vanuatu, where I have been working as resident marine ecologist for a small marine conservation NGO. By learning more about traditional knowledge of the ocean in this region, and what role the ocean itself might have played in its formation, I hoped to gain some insight into how we in the industrialized world might move into a healthier relationship with Mother Ocean. Sadly though, in many of the islands I visited, I learned more about the loss of traditional knowledge and the demise of a healthy ocean relationship. Not surprisingly this loss of relational knowledge coincides with the arrival of Europeans over the past few centuries and in particular, the past one hundred years.

Ocean conversations

I would like to share some of my experience of ocean wisdom with the intention of exploring the idea that indigenous ecological wisdom is the result, not of accumulating knowledge about the place one finds oneself in, but rather of being "*knowledged"* by that place. Once embedded in the knowledge flow of a place, the transition from invader to native becomes possible (Berkes, 2012). Whether that transition occurs depends on the ecological behaviour that, unless consciously altered, will naturally contribute to the dynamic continuity of the living evolution of a place. The reward for the native is a home for life. For those who choose to stay, or revert to, being invaders the outcome is likely to be very different.

One of the benefits of living on a small island is that ecological feedback happens relatively quickly. If your behaviour falls out of step with the rest of the ecological community your daily life is impacted to a degree that you simply can't ignore. When there are no lobsters left on the reef and your fishing net is coming up empty you have no choice but to respond. Tropical ecologist, Robert Johannes postulates that it is this ecological feedback that leads to the development of conservation ethics (Johannes, 2002). However, conservation or ecological ethics exist only in practice. It is not enough to talk about the need to consume less, pollute less and conserve more. It is only through our actions that our ethical truth is revealed.

On the tiny island of Rah in Northern Vanuatu the response to overfishing (due to modern fishing methods being introduced) was to implement a total ban on net fishing around the entire island. This was achieved by consensus through formal and informal meetings and conversations instigated by Chief Noah and the island's conservation committee. It's worth noting here that the conservation committee is deliberately made up of a cross section of the community, including custom landowners, fishermen, church leaders and tourism operators. This consensus process took only a few weeks and yet allowed for everyone in the community of 400 to have their say. The result is a 100% compliance with the ban. In addition to the net ban a small

conservation (taboo) area was designated directly in front of the tourist bungalows on the western side of the island. The rationale for the conservation area was twofold. The committee and custom landowners recognized that the reef in front of the bungalows was severely degraded, as it is a favourite fishing spot, and nothing short of total protection would bring it back to health. In addition they were concerned that tourists would be disappointed with the snorkelling and diving and this could affect the number of tourists in the future. This was not just an economic decision. Rah Islanders are wonderfully friendly hosts and are very concerned that visitors feel welcome and enjoy their stay on the island.

Our visit to Rah Island was at the request of the conservation committee. We were asked to evaluate the conservation area and give them some feedback, from a scientific perspective, as to whether it was working or not. I first explained that to evaluate the effectiveness of the conservation area using standard scientific techniques would require several years of repeat surveys before any quantitative assessment could be achieved. Instead we would use a phenomenological approach whereby we would 'meet' the reef as a living whole, capable of expressing its state of wellbeing, which can be perceived as the 'qualities' of the living reef. In this approach we are also informed by our own ecological awareness, our 'reef knowledge'. So rather than being objective observers, we are knowledge participants in the reef's living process.

After several dives with the reef we met with Chief Noah and the conservation committee to share what we had learned. Rather than meeting in the community hall, we sat on the beach in front of the conservation area where we were joined by two elders, custom landowners, and several young boys (who may have been more interested in our diving equipment than what we had to say). After some formalities from Chief Noah we were invited to share our findings and recommendations. We reported that, while the reef was striving to recover it was being held back by the small size of the protected area. I drew pictures of the reef in the sand to illustrate how the deeper areas outside the current conservation area were an integral part of the living process of the reef and how some of the schooling reef fish moved in and out of the protected area to fed on plankton near the surface. Our recommendations were to extend the protected area seaward, to include the deep reefs, and along the reef towards the lagoon to provide a protected corridor for the schooling reef fish. In addition this would also increase the coral recruitment potential for the area by protecting the algae-eating populations of parrotfish, surgeonfish and rabbit fish. Following this there was a general discussion where we shared our various ocean stories. The two elders reminisced about their experiences of growing up on the island, before monofilament nets, outboard motors and tourists. As I listened to their stories it struck me that this was a time when the ecological wisdom of ages was still part of everyday life. As young boys they would have absorbed that wisdom, along with the development of their hunting and fishing skills, in part at least, through the embodiment of the banded sea snake. Sea snake knowledge was a conduit to ecological wisdom.

A few days later we returned and I met again with Chief Noah. He informed me that he and the conservation committee had met with people in the community to inform them of our recommendations and get feedback. He told me that our recommendations had been received well and that we would now go together to mark out the new boundaries. As we walked I reflected on my experiences here, as well as with other communities in Vanuatu.

The thing that struck me most was their willingness to take responsibility for their situation and act on that responsibility. When they were faced with the reality of their overfishing, they took immediate, but carefully considered and community supported action. They are adaptable, embracing new ecological knowledge and adding to, rather than replacing traditional knowledge. They are prepared to put the wellbeing of the wider community before the individual; some of the strongest supporters of the net ban and conservation area are the very fishermen whose livelihoods are most affected by the restrictions.

To me this shows that ecological wisdom and the actions that stem from it, is a choice that grows out of being embedded in the ecological knowledge process. Perhaps this is what it means to be truly native to a place. If so, then we all have the opportunity, through our choices and actions, to become native to the various places we call home.

Glenn Edney is an Ocean Ecologist working over 25 years as a conservationist and marine naturalist, including interacting with humpback whales in the South Pacific. **www.ocean-planet.org**