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## ARCHAEOLOGY IN NEW ZEALAND



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# THE WAKA MOANA SYMPOSIUM REPORT

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*A paper presented at the NZAA conference 1996 in Whakatane.*

The Waka Moana Symposium and Festival was held at the National Maritime Museum from the 18th - 24th March 1996. The conference was part of the Vaka Moana programme of UNESCO for the Pacific and sponsored by the national commission of UNESCO. Turners & Growers also supported us with a corporate sponsorship.

The theme of the conference was traditional Oceanic canoe building, sailing and navigating. The idea for a conference was born nearly three years ago at the Museum and the first talks with Geoff Irwin, Auckland University - Anthropology, and Peter Jackson, Auckland University - Mechanical Engineering, were very positive. After the grant from UNESCO became available to Geoff Irwin we set up an organising group with contribution from the Anthropology Department, Maori and Pacific Studies, Ngati Whatua and the National Maritime Museum. The Museum at the waterfront in the Waitemata Harbour was chosen as a natural venue for such a conference.

The aim of the Symposium was two-fold:

1. we wanted to provide a platform for some of the best known canoe builders and navigators to meet and to share their knowledge with naval architects and anthropologists interested in the research of the material naval culture of Oceania;
2. the interested public should have the opportunity to hear this group of guest speakers coming from a wide variety of backgrounds.

The guest speakers, the crews of the visiting canoes and the participants made up a cheerful and knowledgeable crowd with many tens of thousands of kilometres of blue water sailing between them. It was fascinating to see them mixing and discussing in every free minute of the conference. The spontaneous public discussion on the hull shape of the Tikopian canoe in the Auckland Institute and Museum on the first day of the conference between Tom Davis and James Wharram showed clearly how much knowledge is still waiting to be discovered.

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### Guest speakers:

Hekenukumai Busby: builder and skipper of TE AURERE

Matahi Greg Brightwell: builder and skipper of HAWAIKI-NUI

Sir Tom Davis: president of the Cook Islands Voyaging Society and captain of TE-AU-O-TONGA

Dr. David Lewis: first world circumnavigation on a double hull

James Wharram: first Atlantic crossing on a double hull canoe, canoe designer

Kehai Omai: Navigator of the Polynesian Voyaging Society

Jack Thatcher: Navigator of the TE AURERE

Bob Hobman: builder and skipper of the SARIMANOK

Bill McGrath: navigator of the SARIMANOK

Myron Van Geison: builder of sailing OC6s

Dennis Alessio: project manager WAAN AEOLON KEIN

Rory McDougall: England - NZ on a 21 foot double hull canoe

Francis Hickey: Vanuatu Fisheries Dept.

Prof. Ranginui Walker: Maori Studies, Auckland

Rawiri Taonui: Maori Studies, Auckland

Dante Bonica: Maori Studies, Auckland

Charles Koro Nehu: Maori Studies, Auckland

Prof. Peter Jackson: Mechanical Engineering, Auckland

Prof. Roger Green: Anthropology, Auckland

Prof. Geoff Irwin: Anthropology, Auckland

Non-instrument navigation was the theme of our first panel. Tom Davis explained with the example of a voyage between Tahiti and Hawaii how Polynesian navigators worked with star constellations instead of the concept of longitude. Kehai Omai from Hawaii showed how the Polynesian Voyaging Society now teaches star navigation in the community - after 10 years of re-discovering the old skills. Jack Thatcher from NZ is an example of this education; he navigated the TE AURERE back from Hawaii after three years of learning. The skipper of the TE AURERE controlled the path of the canoe with a GPS for safety reasons. During the 4000 miles back to NZ he intervened only twice in the non-instrument navigation; the second time only to change the course 30 miles off NZ towards Doubtless Bay as the canoe was heading to the north of the Bay of Islands.

Bill McGrath, the navigator on the voyage of a double outrigger canoe from Indonesia to Madagascar, showed that the Vikings, the Arabs and the Portuguese used very similar star navigation methods as the Polynesians before the introduction of the compass. A series of articles in the *Newsletter of the Royal Society of Navigation*, written by Mike Norman, one of the participants of the Symposium, are a sign of the recent worldwide interest in the ancient skill of non-instrument navigation.



*Matahi Greg Brightwell, NZ (front), Hotu Kerr, NZ (back right) and Myron Van Geezon, Hawaii (back left) sail a modern paddling outrigger canoe, V6. The combination of paddle and sail power makes this canoe one of the fastest coastal racing crafts. (Photo: Sally Andrew)*

Matahi Greg Brightwell and Myron van Geison showed us various lashing and carving methods being used in canoe building. The lashings of the beams to the hull are always done in a criss-cross manner with fairly thin pre-stretched rope but with a large number of turns. The rope locks after each turn in such a way that a single turn can break without loosening the complete lashing. Of the various carving methods to build a canoe the one called 'shark skin' is the most interesting. It consists of shallow grooves, some 10 cm wide, in a right angle to the waterline all along the underwater hull. These grooves improve the friction between hull and water and therefore make the canoe faster. I am not aware of any scientific explanation for this phenomenon.

Ranginui Walker and Rawiri Taonui explored the rich oral traditions of the first canoes arriving in Aotearoa, especially the 'big fleet'. Their research shows a large number of independent voyages of single canoes rather than a single fleet and it also shows the high mobility of people in Polynesia because of their capable ocean going canoes.



*The Marshallese crew under their Captain Kunio Joseph and the Senator of Enewetak/Ujelang, Ismael John take WAAN AEOLON KEIN through her paces. The Walap is arguably the fastest sailing canoe in Oceania. (Photo: Peter McCurdy)*

At the University Dante Bonica and Koro Nehu provided an excellent insight into the use of stone tools for canoe building. This highly specialised craft was the most complicated craft in Maori material culture before the introduction of iron. It seems very likely that there was a special tool set for canoe building. The practical demonstration showed how effective stone tools are in the hand of skilled people. Bob Hobman who tried to use stone tools for his latest project, a voyage from Indonesia to Fiji in a double outrigger canoe, remarked that this demonstration showed him for the first time the real performance of stone tools.

The project WAAN AEOLON KEIN in the Marshall Islands was introduced by Dennis Alessio. Seven canoes were built, one in every island group; the Walap, which is in the care of the Museum, is one of these canoes. All canoes are different depending on the natural environment like common wind strength and direction and depending on the main use. The Walap is the fastest boat of the project and the Museum started during the conference a speed trial programme with the help of Tom Schnakenberg from North Sails. We were very grateful for the visit of the Senator of Enewetak with a group

of canoe builders and sailors, who gave us a real insight into Marshallese sailing tradition.

The story and voyage of HAWAIKI-NUI to Rapanui, presented by her builder Matahi Greg Brightwell, is one of the big adventures of our time and proved beyond any doubt the safety and speed of traditional voyaging canoes.

The life long passion and search for the authentic Oceanic double hull canoe is the destiny of James Wharram. He provided the European world with cheap, safe and fast ocean going crafts based on the principles of Oceanic voyaging canoes - and he is still on his voyage of discovery.

Bob Hobman ventured with his traditionally built double outrigger canoe into the opposite direction of Greg Brightwell - from Indonesia to Madagascar across the Indian Ocean using only star navigation. His new project is called 'In the wake of the Ancestors' and tries to re-enact the voyage of the Proto-Polynesians along the Lapita track to Fiji.

On Thursday a whole fleet of canoes paddled and sailed from Hobson Wharf in the Waitemata Harbour. It was fantastic to see three *proas* sailing alongside a *waka tete* with the TE AURERE and a modern sailing OC6 from Hawaii in the background.

Rory McDougall presented his sail from England to NZ in a 21 foot modern double hull canoe. This was the smallest double hulled craft arriving in Aotearoa from overseas on record. This voyage shows clearly the sea-going potential of a number of traditional fishing and reef canoes.

The discussion of the performance of traditional canoes exhibited the variety of hull shapes and the lack of research into the technical aspects of canoes. This lack of research became even more obvious in the case of the traditional two-sparred triangular sail of Oceania. Its basic shape suggests an enormous potential for cruising boats. Apart from beating into the wind it is far superior to the bermudian rig, commonly used on European yachts.

The archaeology of Oceania, presented by Roger Green and Geoff Irwin, has revealed the basic picture of the exploration and colonisation of the Pacific. But again, there is still a lot of detailed work to do.

Francis Hickey, working at the Vanuatu Fisheries Department, helped to re-introduce sailing canoes to Vanuatu as part of a foreign aid programme. Instead of sending freezers and outboard motors to develop deep sea fisheries for the export market, this programme provides the local dugout canoes with traditional sails - no need to buy petrol or expensive parts for the outboards. Missionaries and colonial powers forbade sailing canoes nearly

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a hundred years ago.

The last discussion of the Symposium concentrated on the future and was inspired by a feeling of unity. The decision of Heke Busby and Greg Brightwell to shake hands after a 10 year long quarrel and to look into building another voyaging canoe together with Tom Davis is a historic moment for the development of traditional voyaging canoes in this country. To share the knowledge of Polynesians and Europeans in a sensible way, to merge scientific knowledge and traditional knowledge and still being aware that the traditional knowledge is part of the cultural property of the indigenous people, was seen as the way into the future. Rawiri Taonui expressed the feelings of most participants and speakers:

"We are not walking behind you nor in front of you - we are walking with you."

Some practical results from this last discussion are a joint work group from *tangata whenua* and the Museum, to publish the proceedings and the preparation of a guardianship contract for the Marshallese canoe which incorporates *tangata whenua*.

I believe that the National Maritime Museum and the organising group have the right to consider the Waka Moana Symposium 1996 as a success.