

The Canoe Is the People

Indigenous Navigation in the Pacific

WELCOME TO THIS CD-ROM



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Welcome

Thousands of years ago, when most sailors were still hugging the coast, the island peoples of the Pacific held the knowledge and skills to explore the great ocean paths around and beyond their homes.

Modern instruments didn't exist – no compasses, no radio, no *radar*^{*}, no *GPS*. The Pacific peoples navigated their canoes with their own *sophisticated* techniques, using the seas, skies, and sea life to guide them. Their knowledge was built up through generations of experience.

It was handed down through careful teaching, stories, and songs.

An experienced Tongan navigator once said,
“The compass can go wrong, the stars never.”

From David Lewis in Bader, H. and McCurdy, P., eds (1999).

And that is the beauty of Pacific navigation.
Voyage into this CD-ROM to find out more ...



Video 1 - Cook Islands canoe builder and navigator Sir Tom Davis (Papa Tom)

The technology of building these ocean canoes that sailed from South East Asia to as far as South America and, in the other direction, as far as Africa and settled Madagascar, I think that's something to be very proud of. And it teaches us self-esteem. We were something. We did something. Therefore we can do something now, and therefore we can see a future for ourselves.



Video 2 - Satawalese master navigator Mau Piailug

Satawalese master navigator Mau Piailug shows the star compass to some children and names some stars as they are seen from Satawal.

From The Last Navigator © INCA 1989.
Directed by Andre Singer.

* NOTE: Definition of words in *italics* can be found in the Glossary in the CD-ROM Storehouse.



Video 3 - Cook Islands navigation student Kaiki Tarangi (Karl)

If my ancestors can sail the biggest ocean in the world, I can take on the whole world. Has it changed my journey in life? It's actually given me a kick up the butt. It says, "We can do this. Come on, boy. You got a gift. We gave it to you. You do everything you can with it." And it's not like smacking my bottom. It's more like the challenge has been set. We're all high achievers.



Video 4 - Hoturoa Barclay-Kerr of Te Toki Voyaging Trust

We're finding that all the things that children are taught at school, like about mathematics and science and astronomy and all those things, are things that our ancestors knew a lot about anyway and did before. So once we can get the message to people to understand that the knowledge of all our ancestors was as useful as any knowledge today, I think then people will be more interested in trying to look at learning about becoming, or following the pathway to become, a navigator.



Video 5 - Cook Islander Dorice Reid

To sail across the ocean in the days that they sailed the ocean, the European voyagers thought that the world was flat. Polynesians always knew that the world was not flat. They always knew it was round. And when our children find out how far more advanced the Polynesian voyagers were, I just know that it will give them such tremendous self-esteem and respect for their ancestors.



Video 6 - Maori master canoe builder, Hekenukumai Busby (New Zealand)

I hope that our youth recover the art of canoe building as the canoe is a mainstay of our culture. We must not forget that it was the canoe that brought our ancestors to this land. If we were to lose this part of our culture, we lose our heritage. I want to share this knowledge with youth today. My dream is for all the tribes of New Zealand to choose a suitable tree each and I could travel to each of these tribes to teach them how to build their own canoe.

About this CD-ROM

The Canoe Is the People honours and explores the knowledge and skills of traditional Pacific navigation. It is designed mostly for Pacific youth but will be of great interest to others as well.

The cultures of the Pacific are diverse. For this reason, the story of navigation has many faces and is told in many ways. This CD-ROM celebrates the similarities and the differences in these traditions. The main focus is on the island of Satawal in the Caroline Islands of the Federated States of Micronesia, where navigational knowledge is still very much alive. However, the CD-ROM also gives many examples from other parts of the Pacific.

Learning navigation is a life-long process. That process is rooted in a network of cultural, social, and spiritual factors. For this reason, the CD-ROM does not aim to teach navigation. Instead, it gives people a taste of the wealth of knowledge that still survives in the great Pacific Ocean. It encourages them to go into their communities to find out more – to rediscover their past and, by doing so, to take part in (and pride in) the voyage of revival.

The Canoe Is the People is the second in a series of CD-ROMs created as part of UNESCO's Local and Indigenous Knowledge Systems (LINKS) Programme (www.unesco.org/links). The series uses new information and communications technologies to attract the interest and imagination of indigenous young people about their own knowledge systems. It supports the transfer of indigenous knowledge from elders to youth. This CD-ROM builds on an earlier UNESCO programme called Vaka Moana, aimed at preserving and developing the Pacific culture and heritage, with an emphasis on canoes and voyaging.

Notes on Language

This CD-ROM uses English as a common language but gives indigenous words where possible. (Note that the spellings of these words vary from place to place in the Pacific.) The English has been kept as simple as possible. The meanings of some words are given in a pop-up glossary. The meanings relate to the ways the words are used in this CD-ROM. Some words may have different meanings when they are used in other places and ways.



Video 1 - Cook Islands navigator Tua Pittman

It's not just the canoe and the connection between the canoe and our ancestors, but it's the canoe and the connection with our future as well. And I think what we need to do over the next 12 months is what I really wanted to do right from the beginning, when the canoe first came out, and that is to take the canoe to the people. The canoe belongs to the people. The more people that touch the canoe, the more mana (prestige, power) that flows from within them to the canoe, and the more they feel they belong.

About Satawal

Island type: Low coral
Island group (geographical): Caroline Islands
Island group (political): Yap State
Country: Federated States of Micronesia
Area: 1.3 square km
Population: About 500
Religion: Catholic
Main foods: Taro, bananas, breadfruit, coconuts and reef and ocean fish



Like other Carolinians, Satawalese navigators know how to use the stars, winds, and sea patterns to travel to distant islands. Canoe houses (for building, storing, and caring for canoes) line the beach. Some people now have motor boats, but gasoline is expensive.

Satawalese women take care of the gardens, and the men mostly fish. Some people also have government jobs in Yap, the district centre. The government ship comes every few months, bringing rice, coffee, sugar, soap, fishing nets, concrete, and other things.

Kenneth Urumolug, a young man from Satawal, recently became a Catholic priest. About 1000 people from neighbouring islands came to the celebration. It included a shortened version of the pwo ceremony (initiation ceremony for navigators) adapted for the occasion and led by master navigator Mau Piailug. Some parts of the ceremony are shown on this CD-ROM.

Beginnings

How did the islands of the Pacific form? Where did the peoples of the Pacific come from? How did they live? When and why did they move? How did they learn to navigate?

Over the years, these questions have fascinated many people. They have been asked and answered in many ways. Each culture of the Pacific tells its own stories – some similar and some different – and modern researchers also have stories to tell. Every story has its own truths, and without them all, the picture would not be complete.



***Video 1 - Satawalese navigator
Mau Piailug talks about the story of
the first navigators***

Women were the first navigators, and Pulap was the first navigator island. It started with a kuling bird (sandpiper), which was a ghost and not just a bird. The kuling flew from the Marshall Islands to Pohnpei, Chuuk, and Pulap and ate everyone along the way ... but not the people of Pulap.

The kuling said to the chief's daughter, "If you feed me enough, I won't eat the people here." The girl told her father this, and he said, "Take her a piece of wot (taro) and a coconut." The girl did, and the kuling ate until she was really full. Then she said, "Tell your father to build me a house so I can teach you to be a navigator."

Every evening, the girl learned from the kuling. She learned more and more. Then one day, the father said to the girl, "I know the story of the kuling ... and do you know how we will kill her? Tell the kuling not to leave yet – we are going to give her something."

The chief told the women of Pulap to get many baskets of wot and the men to get many coconuts. They loaded everything onto the kuling bird. The kuling took off and flew between Chuuk and Pafang, but then she fell down and changed into an octopus. Every navigator always protects himself from this octopus by using pwanur (a mystical way that navigators use to protect themselves from danger).

1 Islander Accounts

Lots of stories tell about the beginning of places and people. Like the archaeological account, many stories talk about flooding or lost lands ... or islands being fished up from the sea. Others talk about canoe voyages from faraway places. Still others tell about people using spiritual powers to create new lands.

In Aotearoa (New Zealand) alone, a range of stories are told. As in many Polynesian islands, there's the story of the boy Maui. From his canoe (Te Waka a Maui, the South Island), Maui fished up the North Island (Te Ika a Maui). There's the story of the navigator Kupe, who landed on the northwest shores. There are the stories of the canoes that navigated here from the island homeland of Hawaiki. And there's the story of Paikea, who arrived on the east coast of the North Island on the back of a whale.

Story 1 - Pohnpei, Micronesia



Langar Island in Pohnpei lagoon is like the main island. It sits on volcanic rock and has good soil and thick forests. A reef surrounds it. But once, Langar was completely flat.

Long ago, there was a huge rainfall, and Pohnpei was nearly washed away. The flood waters took trees, rocks, and houses into the sea. A woman from Langar called Li en Lan saw this. She climbed onto a large rock. As things from Pohnpei washed by her, she grabbed them and piled them on Langar. When the flood was over, she saw that she had created a lovely high islet that looked like Pohnpei.

**Story 2 - Mwoakilloa,
Micronesia**



There were once three brothers named Ur (the oldest), Mwa, and Ka (the youngest). As they grew, their parents taught them many skills – to farm, build canoes, and fish. Ka was the best farmer but the worst fisherman. One day, Ka’s hook got caught, and he couldn’t free it. As usual, his brothers made fun of him. But Ka pulled hard, and finally he pulled an island to the surface. It had three islets.

Ka said he would only give his brothers some land if they showed him the secrets of fishing. They wanted land badly, so they agreed, and Ka learned to fish. Ka then gave them the islets with the best fishing areas – because they were the best fishermen. He kept the islet that had good land for farming. The brothers named their islands after themselves: Urak, Mwandohn, and Kahlap.

When their mother died, a coconut tree grew from her grave. The nuts had three corners, which they named Ur, Mwa, and Ka. They planted them on each islet, where they still grow today. Because of the names of the brothers, the word for young coconut became urmwaka.

In other versions of this story, Mwoakilloa is called Mokil.

**Story 3 - Tonga,
Polynesia**



Tangaloa, the god of art and invention, looked down from his sky home of Bolotu. “I am hungry. Hungry for fish.” He let his great turtle hook go down, down, down. Soon, something heavy pulled on the line. Tangaloa pulled and pulled, but he couldn’t pull up the hook. He had caught a huge rock, not a fish! He laughed and said, “Today, I won’t eat. Today, I’ll have fun making islands.” He pulled up the very bottom of the sea. When the rocks reached the surface, the line broke. The land split into lots of little islands.

Then Tangaloa let pieces from the wood he was carving fall to the water. He told one of his sons to become a bird and fly down to see what happened. After some days, the pieces of wood became a beautiful island! He told his son to plant a seed on the island. The seed grew into a vine. His son pecked at the root until it broke in two and rotted. A big white worm formed there. He pecked at that, and it split as well. The three parts became the first men – Kohai, Kuau, and Momo.

Tangaloa named the island Eueiki, the first place of men. The three men became the first tui Tonga (rulers of Tonga). The first true man (not from a worm) was Ahoei. He was born later to Tangaloa and a beautiful woman called Ilaheva Veepopua.

**Story 4 - Rapa Nui,
Polynesia**



Our homeland, Marae Renga, lies a long way to the west. Our king, Hotu Matua, was one of the chiefs there. Oroï was his enemy. There was a war between their tribes. Haumaka, the tattooer of Hotu Matua, had a dream: that six men went across the sea to a land covered in holes and white sandy beaches. So Hotu Matua sent six men to find that land. They travelled in their canoe Te Oraora Miro, taking yams, breadfruit, coconuts, and other things to plant.

And they found that land and arrived at Te Pu. There were no tall trees or streams. It was all rolling grasses. They climbed Rano Kao and saw the crater – the hole that Haumaka had dreamed about. They went along the coast and saw the white sands of Anakena. At Turtle Bay, one of the men was hurt when fighting a turtle. They carried him to Ihuarero cave so that he could heal. After three days, they left him. At the cave opening, they built five men of stone to care for him.

When they had come right around the island, they saw the double hull of Hotu Matua and another of Tuu Ko Ihu, the priest and navigator. Hotu Matua went along the south, and Tuu Ko Ihu went to the north. Hotu Matua's canoe was the first to land at Hiramoko. As it landed, his son Tuu Ma Heke was born. Then the canoe of Tuu Ko Ihu landed at Hanga Ohio. There, his daughter Avareipua was born. Tuu Ko Ihu cut their navel cords with his teeth and sent them to sea in a gourd. Then all the mahingo came to shore – all the people from the canoe of Hotu Matua, the king.

**Story 5 - Ulithi,
Micronesia**



Long ago, the islands of Ulithi didn't exist. A woman called Felta lived on Yap with her two brothers, who treated her very badly. Because of this, she decided to leave. When she reached the sea, she could go no further. She filled a coconut shell with sand, said some enchanted words, and threw the sand in the sea. It formed a sand bar. She walked on it until she reached the end. She threw more sand and created more sand bars. She did this again and again until she came to where Ulithi is today.

She made Mogmog her home because it had lots of turtles. There, she had a son. She taught him many skills, like building canoes. She sent him to Yap to bring coconuts back since there were none on Mogmog at the time. Today, Ulithi is covered in coconut trees.

**Story 6 - Palau,
Micronesia**



Long ago, Palau had only two islands – Peleliu and Angaur. One day, a woman named Latmikaik had a baby boy. She called him Chuab. The morning after, Chuab was already crawling. He learned to walk the next day. He grew very fast and ate huge meals. Sometimes, he ate pigs and even young children!

The village people were very worried and asked Latmikaik what to do. The mother sadly told them that they should kill Chuab. The people started to collect wood for a

fire. Latmikaik tearfully told Chuab that they were preparing special food for him. The people asked Chuab to stand on the wood so that they could pay respect to him. Without him noticing, they started a huge fire.

Chuab fell down and died. Because Chuab was so huge, parts of his body stayed out of the water. They became the many different islands of Palau. Chuab's mother asked the villagers to cover his body with mats. But there were not enough mats, so they had to use branches. This is why Palau is half forest and half plains. The people of Palau come from the worms that grew from Chuab's body.

In other versions of this story, Chuab is called Uab.

**Story 7 - Majuro reefs,
Marshall Islands,
Micronesia**



Letao, a man from Majuro in the Marshall Islands, was famous for his strength ... and also for playing tricks on others. Letao really liked the King of Laura's canoe and made a plan to get it. He built a beautiful but useless canoe to trick the King. Letao used kone wood, which is strong but doesn't float!

Letao shined and decorated the canoe. At low tide, he piled large stones offshore and pulled the canoe on top of them. When the King arrived, Letao's beautiful canoe seemed to be floating on the lagoon. The King was very impressed. Without thinking, he traded his own good canoe for one he had never sailed. In the King's canoe, Letao raced towards the pass to the open sea, laughing and singing.

When the King tried to paddle his new canoe, it fell from the rocks and sank! The wet and angry King yelled for his people to catch Letao. Canoes raced after him, but Letao kicked up sand and coral from the bottom of the lagoon. This created reefs that blocked their way. Letao was last seen sailing into the sea beyond Majuro.

In other versions of this story, Letao is called Etao, Majuro is Mejuro, and the King is Koko the canoe builder.



2 Archaeological Account

Many thousands of years ago, the sea was much lower than today. A lot of the world's water was frozen in *glaciers* on the *continents*. As the earth's climate warmed up, the ice slowly melted. Water began to cover the lowlands. People had to move and begin a new way of life. Some went inland. The ancestors of today's Pacific Islanders became canoe people who travelled and traded between the newly created islands.

Through time, some islands rose and some fell due to underwater earthquakes and sea level adjustments. Today, people tell accounts of big floods and about islands being formed – sometimes fished up. These stories could be about what happened thousands of years ago.

Linguists and *archaeologists* are beginning to learn where and how people lived through the flooding and why they moved: to find new homes, to trade, to fish, to visit relatives, to find a wife or husband, and even to escape a fight or attack another island. To learn when people were in a place, archaeologists use *radiocarbon dating* on objects that they find there.

Peopling of the Pacific

4000–3000 years ago

The first islands reached in the tropical northwest Pacific were Palau, Yap, and the Marianas. The people who came to Palau and Yap to fish and garden may have been from nearby Halmahera (in Indonesia) and northwest New Guinea. The people who reached the Marianas from the Philippines sailed over 2500 km – the longest open sea crossing in the world until that time! The Marianas had bad droughts (long periods with little or no rain) and storms, but the reefs were full of fish, turtles, and shells that were valuable for trading.

South of the equator in the Bismarck Archipelago and the western and central Solomon Islands, the canoe people made decorative red pottery. Archaeologists (people who study ancient living places and artifacts (objects made by people)) call this pottery Lapita after the place in New Caledonia where it was first found. Over long distances, the people on these islands traded obsidian (hard volcanic rock that's good for cutting) and valuable shell ornaments. Like the people in the north, they probably also exchanged marriage partners.

3000–2000 years ago

The southern canoe people sailed east across 450 km of open sea to the Reef and Santa Cruz Islands (eastern Solomon Islands) and probably from there to Vanuatu, New Caledonia, Fiji, Tonga, and Samoa. The open sea crossing between Vanuatu and Fiji is 950 km! Lapita pottery has been found on all these islands.

By about 2000 years ago, the very low sea level had uncovered the Marshalls and Kiribati (Gilbert, Phoenix, and Line Islands). The people who settled (came to and occupied) these coral islands probably came from Vanuatu and the south-east Solomons. They grew many kinds of pandanus and coconuts, as well as giant swamp taro in holes fed by underground water. They also became some of the world's best sailors.

2000–700 years ago

Canoe people were settling (coming to and occupying) the small coral islands in Micronesia. At Lamotrek in the Carolines, turtle and fish bones have been dated to about 800 years ago. People also settled in the most remote (far away) islands of Hawaii, Rapa Nui (Easter Island), and Aotearoa (New Zealand). The similarities in the artifacts (objects made by people) and languages now spoken in these three places suggest that the settlers came from west and central Polynesia (Fiji, Tonga, Samoa, the Society Islands, and the Cook Islands). They probably used large, double-hulled canoes, which can safely carry many people and things. These canoes sail best in calm seas, not strong winds, and the navigators timed the trips for these conditions.

Great navigators guided the canoes to these islands thousands of kilometres away. The people needed to be strong and adaptable. The climates, land, animals, and plants were different. People developed new ways to fish and to farm (for example, to protect plants from the winds). They also started to plant a new crop – the sweet potato from the Andes Mountains of South America. The South Island of Aotearoa was often too cold to grow crops, so the people there fished, collected wild plants, and hunted animals.

So how did the people of the Pacific get the sweet potato? They may have sailed all the way to South America and brought it back. This apparently happened around the same time that people were settling Hawaii, Rapa Nui, and Aotearoa. Sweet potatoes were taken further west too. Bits of burned sweet potato have been found on Mangaia in the Cook Islands. These have been dated to about 900 years ago.

