Tangaroa

PACIFIC VOYAGE

Testing Heyerdahl's Theories about Kon-Tiki 60 Years Later

by Torgeir Sæverud Higraff

with Betty Blair

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Crew that sailed the Tangaroa raft from Peru to the Polynesian islands (April to August 2006). Left to right: Torgeir S. Higraff (expedition leader), Anders Berg (photographer), Olav Heyerdahl (carpenter, scuba diver and grandson of the famous Thor Heyerdahl who led a similar expedition in 1947), standing behind: Bjarne Krekvik (captain), Øyvin Lauten (executive officer) and Roberto Sala (Peruvian ex-navy sailor).

As far back as I can ever remember, Thor Heyerdahl (1914-2002). has always been my hero. Ever since childhood. I know I'm not alone. The ventures of this great explorer, anthropologist and archaeologist on the high seas have captured the imagination of millions of people around the world, making him the most famous Norwegian as well as one of the most well-known international figures of the 20th century. His fame is most closely associated with his first voyage across the Pacific Ocean on a primitive balsa raft named "Kon-Tiki", the Inca name for "Sun God".

Despite how risky that undertaking was, one must keep in mind that Heyerdahl always carried out exhaustive anthropological and historical research before ever embarking on any type of archaeological experiment—whether on land or sea. In anticipation of that bold venture floating on a primitive raft to the Polynesian islands, Heyerdahl had spent an enormous amount of time in the "field". In 1937 he took his newly-married wife Liv on a steamer to the island of Fatu-Hiva where for a year they tried to live as close to nature as possible.

Unlike most people who spend their careers in academia, Heyerdahl was willing to take risks to prove the merit of his ideas. He challenged others—perhaps, it's more accurate to say that he "provoked" others—to find evidence to counter his theories. In this way, despite the fact that some of his ideas turned out to be wrong, he still did the scientific world a great favor. In addition, one cannot underestimate his contribution to the general popular knowledge in making people aware of early navigation and migration patterns across the continents.

He prodded researchers to rethink the early migration patterns of man—not only in terms of the direction of immigration from West to East, but in the feasibility and likelihood that early man had had the capacity to cross vast expanses of water. Heyerdahl generated enormous interest in numerous fields—cultural history, anthropology, archaeology, botany, biology, early language and environment. He raised major questions, not only about our past, but about the future as well.

WOULD IT SAIL?

Despite how convinced Heyerdahl was that the Kon-Tiki experiment would work, he admitted to having doubts even up to the last moments before launching out to sea. A few days prior to the voyage, Heyerdahl had chanced upon a Norwegian ship with experienced Norwegian crewmembers aboard. He showed them the Kon-Tiki. Their prognosis was not good: such a blunt-bowed, clumsy craft with its small sail would never make it across the Pacific. For sure, it wouldn't be able to keep afloat even for two weeks; and even if it did, it would take the Kon-Tiki a year to reach the Polynesian islands. Besides the ropes tying the logs together would wear out from the continuous rubbing up and down as the craft rose and fell with the waves.

Heyerdahl noted in his book Kon-Tiki: "Even if only one of their arguments proved to be right, we didn't have a chance. I'm afraid that I asked myself many times if we knew what we were doing. I could not counter the warnings one by one myself because I was not a seaman. But I had in reserve one single trump in my hand, on which the whole voyage was founded. I knew all the time in my heart that a maritime pre-historic civilization used rafts like the Kon-Tiki to travel vast distances along the coast of South America, long before Europeans set foot on the continent. Could their ingenious boats have challenged the biggest ocean of all—the Pacific?"

Of course, Heyerdahl's popularity must also be understood in the context of World War II (1939-1945). Here was a handsome young man embarking into the unknown on a simple primitive craft across a vast, potentially turbulent and life-threatening ocean with just a small, handpicked crew, simply to prove something that they believed in. He dared by himself to challenge well-established institutions.

It was an enormously romantic idea—especially following on the heels of a brutal war, which had destroyed the lives of so many millions of people. Heyerdahl challenged the belief that one's fate was pre-determined. He was convinced that despite limitations, man could do much to shape his destiny.

Only once did I have the chance to meet my hero personally. It was back in 2000. In Oslo. But, of course, the concept for our project, which we would name "Tangaroa" (God of the Seas) was inspired by Kon-Tiki.

UNIVERSITY STUDIES

I must have been mulling over this idea for such an expedition for about 10 years. During my studies at the University of Oslo in the mid-1990s, I had read all of Thor Heyerdahl's books. I found them at second-hand bookstores; they weren't available at the university bookstore. Heyerdahl's book "American Indians in the Pacific: The Scientific Theory behind the Kon-Tiki

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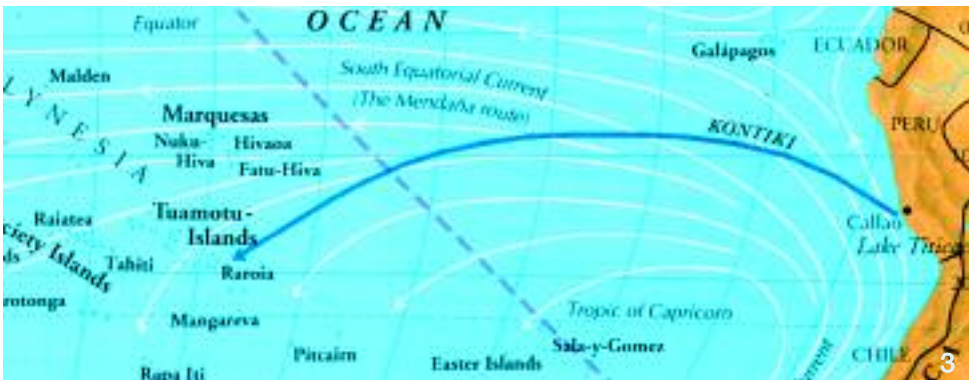

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Photos

2. The Tangaroa sailed from the Peruvian coast to the Polynesian islands, a distance of 4,620 miles (7,436 km) from late April to early August 2006. The idea behind the design of the raft was to improve upon Thor Heyerdahl's Kon-Tiki expedition (1947), from a technical point of view which had sailed 60 years earlier.

The Tangaroa was a larger vessel and had a sail that was three times as large. It arrived more quickly at its final destination because the crew had learned to use "guara" centerboards to steer the craft.

3. Map of Kon-Tiki voyage, which generally followed by the Tangaroa raft.


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Expedition" is an impressive volume of 800-plus pages with more than a thousand scholarly references. Few people know about it and those who do, rarely give Heyerdahl the credit he deserves for it. I also read his other books like "Early Man and the Ocean" which provides a good overview into the subject of early migrations.

I didn't read these books like any ordinary person in search of adventure. I studied and analyzed them, digging into the references, especially those written by scientists who opposed Heyerdahl's ideas such as Lothrop (1932), Hornell (1931) and Dixon (1932, 1933).

Arguably, with the exception of James Hornell, such scholars were not convinced that a balsa raft could carry people and goods from the Americas to the Polynesian islands. They thought such a crude boat wouldn't be buoyant and that shortly after it left the shore, it would become waterlogged and sink. It was in the midst of this heated debate that Heyerdahl decided to test his hypothesis to convince the scientific world that it was, indeed, possible for a raft to be carried along by ocean currents for 8,000 kilometers.

Of course, spending so much time buried in Heyerdahl's works didn't boost my grades in Latin American History. I managed to pass, but the professor blocked my pursuit to continue my Master's degree. In fact, when I challenged him about the agenda of the program, he literally kicked me out of the program.

I guess I should consider myself lucky to have even been given a grade for the course and allowed to graduate. The experience made me sensitive to some of the difficulties that Heyerdahl himself had dealt with throughout his career. The greatest opposition to his ideas came from academia. They stabbed him, wounded him, but in the end, they never managed to stop him.

PHOTOS

4-5 The Tangaroa took advantage of modern technology to facilitate communications and make the voyage by raft safer. The raft was equipped with telephone, radar system, solar panels, wind turbine, laptop computers and access to the Internet. Here Captain Bjarne Krekvik from Sweden is making contact with a captain of one of the four large container ships that the raft passed during the voyage. Communication was important in order to avoid any collision.

6. Though Anne Ely Thorenfeldt did not cross the Pacific with the crew on the Tangaroa, her presence was indispensable for the expedition. She was coordinator for the project back in Norway and worked tirelessly behind the scenes for the past several years, helping to sort through and administer myriad details.


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So, with my academic studies short-circuited, I decided to take a trip to Peru to study these early indigenous cultures that had spread throughout the region prior to the Spanish conquest. That was in 1996. I traveled 15,000 kilometers in a 1979 Corolla from Atlanta, Georgia, all the way down to Costa Rica and eventually ended up in Peru, where my passion grew for the coastal culture. Whenever I would visit a museum or archaeological site, I found myself jotting down notes about prehistoric seafaring and primitive vessels.

But I never told anyone of my dream. Well, not before 1999 when I met Mona—the woman who would become my future wife. I was afraid that if I mentioned that I wanted to build a raft and repeat Heyerdahl's Pacific expedition, it would have been like telling people that I was going to be an astronaut! People would have thought: "Yeah, sure! Dream on!" And they would have smiled and nodded: "How wonderful!" and then politely changed the subject to something more credible.

After Heyerdahl's death in April 2002, I told Mona that I really wanted to focus on making this voyage during the next few years. It meant that she would have to support me financially, which she did—for three years, though I did earn some money as a teacher. This experiment also meant that Mona would have to forget about the idea of having children until after I returned from Tahiti. And so, we came to an agreement and we began pursuing the idea of what became the Tangaroa with enormous passion. And it was Mona who became my greatest support and confidante.

Now that the expedition is over, maybe we'll be able to settle down to a more normal life. We laugh about those strange episodes at the beginning of our dreams for Tangaroa. It wouldn't have been easy for any wife. Our apartment was always a mess—books and papers all over the place.

Mona would tell friends and family: "He's planning a secret project" but that would only whet their appetite and make them probe further: "Was I studying at the university?" "Was I writing a book?" I guess they couldn't believe that someone would do research without having a course or without getting paid.

Despite the fact that we had no funding, we spent the summer of 2003—actually, it was our honeymoon—trying to track down balsa trees in Ecuador. The effort ended in failure. In the process, we had had to cope with a mountain of difficulties, many of which we would rather forget about. We began to realize that endurance alone was not enough to guarantee our success. Sick, dirty, worn out and disappointed, I told my wife: "It's time to go home. Forget about these piddly little efforts; we have to start thinking big!"

Torgeir Higraff (33) Expedition Leader of Tangaroa. It was his brainchild to repeat the oceanic voyage by balsa raft that Thor Heyerdahl (1914-2002) made across the Pacific in 1947. Torgeir has a background in teaching and journalism and is passionate about nature, history, and the study of both past and present civilizations. He likes to engage in conversation about philosophy and politics over a glass of red wine, but he also spend much time exploring wilderness and historical places. Presently, he is writing a book about the expedition, which is scheduled to come out in four Scandinavian languages—Norwegian, Swedish, Danish and Finnish. He is married and lives in Oslo, Norway.

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Bjarne Krekvik (53) joined the team in December 2004. He served as captain and was a key person for the success of the Tangaroa because of his expedition experience and sailing background from replicas of Viking ships.

Bjarne has a degree in agronomy and in navigation. He served as head of security onboard. Bjarne spends his free time on his little farm. He likes being outdoors and listening to music. He has worked as First Officer aboard a freighter and has taken part in several expeditions sailing Viking ships. He is married and has two sons.

Anders Berg (42) has been involved with the Tangaroa project since Spring 2004. He was the first crewmember to join Torgeir. Anders served as the photographer for the expedition and was responsible for all filming onboard the raft. Anders likes to spend time outdoors, especially doing alpine skiing. And he loves music. He is married with two sons. He lives in Torsby, Sweden, and was the only Scandinavian who was not Norwegian. Thor Heyerdahl also took one Swede along on the Kon-Tiki crew 60 years ago!

Øyvin Lauten (55) teaches building construction at Thor Heyerdahl High School in Larvik, in southern Norway, which is the hometown where Heyerdahl grew up. Øyvin served as "XO", Executive Officer for the Tangaroa. He served as the captain aboard the veteran ship Frithjof II for many years. During leisure time on the Tangaroa, Øyvin liked to sing. On land, he sings in theatrical performances. He is married, with two daughters and a granddaughter. Home for Øyvin is Stavern, Norway.

Roberto Sala (45) came from Lima, Peru. He was the only non-Scandinavian crewmember. He had a long career in the Peruvian navy and was selected by them to represent South American seamanship. On board the raft, he was responsible for astro-navigation.

Roberto turned out to be the only person on the raft who had no conflicts with anyone during the 85 days duration at sea. Though teambuilding is critical to such an expedition, Roberto proved that native politeness was even more effective. He is married and has a daughter.

Olav Heyerdahl (29) is the grandson of Thor Heyerdahl who made the original expedition by balsa raft from Peru to the Polynesian islands in 1947. As a carpenter and engineer, he was responsible for construction and maintenance onboard. He likes to travel and finished the second half of his engineering studies in Cape Town, South Africa.

Olav is an enthusiastic scuba diver, which enabled him to marvel at the unique life under the sea. In some places it was so clear that he could see 30 meters depth. Olav is single and lives in Oslo, Norway.

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RE-READING KON-TIKI

On the return flight home to Norway, I started re-reading Heyerdahl's book, Kon-Tiki. This time I didn't read for the plot. I wanted to learn directly from the pioneer himself: "How had he been able to organize such an undertaking?"

I read with new eyes. This time I focused on the process and the gigantic effort it took to plan the expedition. From the beginning, Heyerdahl had had the astuteness to present the experiment as an official undertaking—not

PHOTOS

7. Preparing the balsa logs for the Kon-Tiki raft (1947). According to Thor Heyerdahl the Expedition Leader, 12 enormous balsa trees were chopped down in the jungle in the foothills of the Andes mountains in Ecuador. They were floated down the river where the raft was constructed in Peru. According to Heyerdahl, each tree was christened and given the name of a god before it was felled, in accord with Polynesian custom.

8. Kon-Tiki used nine sizeable balsa logs as the base for the raft; Tangaroa was larger with 11 logs. In both vessels, hemp rope was used to tie all the pieces together. Not a single nail, bolt or wire was used.

9. Calm seas for the Kon-Tiki (1947). Photos from a rubber dinghy. Heyerdahl noted that "when the balsa logs disappeared behind the waves, the raft looked like a crooked hayloft floating on the sea."

10. A Kon-Tiki crew member (1947) struggling to steady the steering oar in rough seas. Because Heyerdahl didn't know how to use guara centerboards that ancient seaman had used with such craft, keeping the course became even more difficult for the Kon-Tiki.

"The Kon-Tiki expedition opened my eyes to what the ocean really is. It is a conveyor and not an isolator. The ocean has been man's highway from the days he built the first buoyant ships, long before he tamed the horse, invented wheels, and cut roads through the virgin jungles."

—Thor Heyerdahl
Foreword to the 35th Anniversary Edition of his book Kon-Tiki,
(Washington Square Press, 1984)

something amateurish. For example, on his trip to Ecuador and Peru, he had carried letters of reference and support from governments and VIPs ("very important persons").

I knew I had to concentrate more in this direction. It would be critical to the project to meet the right people who could facilitate my efforts, and it would be important to meet them in the right sequence. I would need to gain the support of A, who could help me to meet B, and so on. Considering the scope of the project, I soon realized that I would probably need the assistance of an entire alphabet!

It didn't take long to see that this project would be more time consuming for us than it had been for Heyerdahl. Being knowledgeable and courageous simply wasn't sufficient enough to carry out an expedition of this magnitude.

CHOOSING THE CREW

It was then that I met Anders Berg, 42. I happened to be in Sweden viewing footage at the largest film archive that exists on Heyerdahl. Anders had worked directly with the explorer over a period of several years. He was a professional cameraman with Sebrafilm. Some weeks later, Anders emailed me, asking to be the Swede to accompany us on the raft. "After all," he argued, "there had been a Swede on the Kon-Tiki—the prototype for the voyage. Besides, wouldn't I need a cameraman?"

Two years would pass before we finally were able to launch Tangaroa, yet Anders never tired of the project, and he was committed to making a film about the voyage. The Kon-Tiki footage had been in black and white and awarded an Oscar in 1951 for Best Documentary. The Tangaroa footage would be made in color with sound.

"Talk to Olav Heyerdahl!" the director at the Kon-Tiki Museum in Oslo had advised. Olav, then 27, just happened to be the grandson of Thor Heyerdahl. And as if that wasn't enough to qualify him for the expedition, he also was a carpenter and civil engineer. At the time when I first broached the subject with him via email, he was scuba diving off the coast of South Africa.

After a few meetings, I decided to go ahead and invite Olav to join the expedition. Naturally, he needed some time—the summer of 2004—to think about it. Fortunately, he agreed. As a true handyman aboard the raft, he became indispensable to the expedition, not only when we were cutting down the balsa trees and floating the logs downriver, or constructing the raft itself, but Olav was immensely helpful onboard as well when we desperately needed to make repairs.

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Also he was responsible for scuba diving, which enabled us to get a glimpse of the marvels under the sea. Anders had an additional camera that he would attach to a pole and submerge in the water to capture the underwater life that Olav found. Olav scuba dived; the rest of us only snorkeled.

Bjarne Krekvik, 53, joined us as captain of the Tangaroa. One of the most experienced Viking ship sailors in Norway, Bjarne was chosen because he could apply his vast knowledge in addition to helping us with the rigging and navigation of the raft.

Bjarne had been the captain of a replica of the Gokstad, a 9th century Viking ship called Saga Siglar, which had sailed around the world in the 1980s. He had later sailed it as the skipper when it went down in violent winds and 14-meter waves in the Mediterranean in the 1990s. He and his crew sailed that open Viking ship for hours in a life-threatening hurricane before managing to get to safety in lifeboats. That's what I call "real seamanship". Bjarne was considered a hero back then. Now we had chosen him to organize our expedition across the Pacific. I was proud to be among his crew.

PHOTOS

11. Torgeir at the balsa plantation in Quevedo, Ecuador.

12. The Tangaroa crew ordered the balsa trees in November 2004. The trees were selected and marked in February 2005. The idea was to identify trees, which would be the most buoyant. Since female trees are lighter than male trees, native specialists would knock against the trunk to detect by sound which were the more porous trees. Then in January 2006, a cut was made around the circumference of the trunk to prevent the sap from rising.

Two weeks later the trees were cut down and left with their branches and leaves attached to dry out. Finally, as shown above, Torgeir and workmen stripped the trunk of its bark and prepared the logs to be transported to Peru where the raft would be constructed.

13. Organizing logs for transportation to Peru where the raft would be built. The raft was made of 11 balsa logs, the longest one in the middle of the vessel measured 17 meters (about 56 feet) long, while the others were 14 meters (46 feet). Despite the fact that balsa produces one of the lightest weight woods, the logs all together weighed more than 20 tons.