



“Boundaries? I’ve never seen one,
but I hear that they exist in the minds of most people.”

—Thor Heyerdahl, explorer, environmentalist, experimental archaeologist and expedition leader of the Kon-Tiki balsa raft (1947) and three other sea-going vessels made of reeds—all based on designs by early sea navigators.

Also, we used a special drill to take sample cores from the trees, which had the largest diameters. This enabled us to determine which trees were the driest and healthiest. As you can see, we used modern technology to assist as much as possible in both the construction and in sailing.

KON-TIKI’S LOGBOOK

Heyerdahl’s logbook that he kept on the Kon-Tiki has never been published, but I was able to borrow it from the Kon-Tiki Museum in Oslo and study it. The facts about his trip became clearer, particularly in relationship to his observations about the weather and wildlife. Heyerdahl paid a lot of attention to details. For example, he used to document the number of flying fish they found on deck each morning, the kinds of birds and number of sharks they saw. He would note the size of the “dolphins” (a fish species

known as “Dorado” or “Mahi Mahi”) that they caught. He also made extensive notes describing how they had prepared for the journey, such as how much food and drinking water they stored on deck before leaving the Peruvian port of Callao.

Now after our expedition, I respect Heyerdahl even more for his ability to describe what he observed floating out there on the ocean. I sometimes found it hard to put into words the natural wonders that I saw, but Heyerdahl had a talent for this—both for observation and expression—like the way he described dolphins chasing after flying fish, or how fauna was growing on the logs beneath the raft, or how the raft was turning into a floating reef itself.

Heyerdahl must have had extraordinary leadership skills as well. Imagine, even though his reed boat the Ra sank (1969), the same team signed up with him to sail Ra II (1970) and also for the Tigris (1977) as well. Now that’s impressive!!!



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PHOTOS

36. So many flags were hoisted on the Tangaroa. They represented the nationalities of the crew (Norway, Sweden and Peru) as well as the countries participating in the expedition (Ecuador and French Polynesia). In addition, the community flag of Larvik, Norway, was raised as well.

Larvik is the hometown of Thor Heyerdahl where the raft has since been shipped back so that it will be a major show piece in a museum dedicated to Heyerdahl's legacy that is soon to be built. One more flag—that of the United Nations—also crossed the ocean atop the Tangaroa mast.

37. Islanders on Raiatea honor the Tangaroa crew with orchid leis and oars made by local experts. Here Øyvind Lauten (executive officer) on the Tangaroa honored after nearly three months at sea.

38. Welcome to Tahiti. Island residents wait for the crew to come onshore.

39. A jaunt to the local corner grocery shop at Raroia—first stop after 78 days at sea. The Tangaroa crew stayed on the island for a week, it necessitated some trips to the local grocery store. With clothes, shoes and groceries in hand—bread, butter, eggs and beer—Torgeir returns to the raft. July 10, 2006.



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If Heyerdahl were still with us, I would so much like to ask him about so many details of the Kon-Tiki voyage. For example, I wonder if they really experienced actual “storms” at sea. He called them “storms” in his book, but the logbook never mentioned “storms”. Maybe they were “just” gales like we had. Also, I’d like to ask him about life onboard and about relations among the crew.

I think that he would have had questions for us, too. He may have wondered about our use of the guara boards and our larger sail since we arrived 31 days earlier than he did. And I think he would have been curious about the similarities that we had discovered between Viking ship technology and raft technology.

MODERN TECHNOLOGY

As you see, our expedition really wasn’t about testing the ability of a sea-going vessel that was an identical replication of circumstances that sailors dealt with 2,000 years earlier. Philosophically, we had no qualms about using modern technology to assist and protect us. We felt that was the best way—to use every possible modern piece of equipment available to ensure our safety.

For example, Jotron Electronics outfitted us with a very expensive computer (radar) system, known as AIS (Automatic Identification System). This equipment made it possible for us to track and identify any ship at sea from several hundred nautical miles’ distance. This also gave us access to all data related to any ship that we might pass. Even from a distance, we could determine their size, location, speed, destination and nationality of the

updates on our Web page—TANGAROA.no—throughout the voyage. We generated electricity from the six solar panels attached to the cabin roof. Curiously, calling someone on the phone cost only about a dollar a minute which, given the circumstances, was really quite reasonable.

We brought three Macintosh laptop computers onboard, which worked fine despite the salt and humidity. We were used to working with MACs for writing, photo work and video editing. When not in use, we stored the computers in watertight Pelicase cases, which are used for protecting cameras and other sensitive equipment. The manufacturer even boasts that they can protect equipment to depths of 30 feet under water.

In addition, we carried state-of-the art digital cameras, solar panels and wind generators. We also had desalination equipment in case we found ourselves in an emergency situation where we would need to make our own drinking water.

The laptops also had DVD players, and we brought Ipods to listen to music, but, mostly, we were fascinated with watching the waves, the ocean and sky. We never got bored—at least I never did.

The most sophisticated equipment that Heyerdahl had on Kon-Tiki was a short-wave radio that he had used in World War II. He also used a sextant to determine his position. So did we. But we could control the position with the GPS. Early man was so knowledgeable he could navigate by the stars.

In regard to being physically fit for the trip, actually, one’s physical shape is not the most determining factor aboard such a raft. However, from my experience as both teacher and trainer, I’m convinced that one’s physical shape says a lot about one’s mental condition. Actually, all of us were in

“To the innocent masses in all industrialized countries, we direct our appeal. We must wake up to the insane reality of our time.... We are all irresponsible, unless we demand from responsible decision makers that modern armaments must no longer be made available to people whose former battle axes and swords our ancestors condemned.”

—Excerpt from the Open Letter that Thor Heyerdahl wrote to United Nations’ Secretary General Waldheim on April 3, 1978, upon landing on the coast of the Republic of Djibouti, Africa. Heyerdahl and his crew had just survived a five-month oceanic voyage of 4,200-miles only to be denied a place to land because the entire region was engulfed in war. In the end, Heyerdahl decided to torch his reed boat—the Tigris—setting it ablaze as a bonfire for peace, protesting the wars that were raging, fueled by arms sales by the major Western powers and the Soviet Union.

registration. Likewise, other ships knew the same things about us. Meeting up with a ship out there in the vast ocean didn’t happen very often but we were glad for this equipment. We considered it a valuable safety feature.

We also had GPS (Global Positioning System) and a big satellite dish that connected us to the world. However, such a connection turned out to be very expensive—something we didn’t quite realize until we were half way through our journey. Imagine our shock when we received a \$20,000 telephone bill! Obviously, we had to drastically limit the time we were spending on the Internet from one hour total each a day to a mere 10 minutes. Being connected to the Internet enabled us to transmit daily

good physical shape. This was very useful when we had to raise the heavy sails, move the steering keels (guaras) or climb the mast. But life onboard was generally relaxed. Some days passed when we had nothing to do at all. It wasn’t like those ocean races in schooners.

Whenever we sensed a storm approaching, we would put our life vests on. You could see the weather rolling in—heavy, dark clouds—usually from the south about half an hour before the storm would hit.

Yes, there were times when we were quite far from help if we would have needed it. At one point, we were 1,000 nautical miles (1,850 km / 1,150 miles) both from Easter Island and from Peru. Despite that, we never felt loneliness. No one ever mentioned to me that they felt lonely.

MOONLIGHT

During the first weeks of the voyage, the nights were cloudy, and we had to use flashlights to move around on the deck at night. The lights attracted “flying fish” that sometimes would smack right into us. It would sting because of their speed.

Then during the last half of the journey the sky was clear at night. The stars were so bright and beautiful. It’s so difficult to describe such an awesome sight. The planet Jupiter would shine so brilliantly that you could see its reflection in the ocean—like a small moon. And with star map in hand, we could name all of the major stars in the heavens. This made our three-hour watch fly by so quickly. Sometimes, we didn’t even want to return to bed. We would just remain outside, gazing up at the stars, hypnotized by the beauty of the night sky. And on nights when there was a full moon, the light shone so brightly that we could read out there in the blackness of the night. The large sail served as a reflector of the moonlight.

We always assigned two crewmembers to stand watch at night, along with one officer—either Bjørn or Øyvind. Another safety precaution. The officers would divide the day between themselves, and the rest of us would take turns assisting.

At night we had to watch out for a number of things. First of all, raising and lowering the guara boards. This would enable us to stay on course no matter which direction the wind blew. As well, we always kept an eye out for those who had to get up and relieve themselves in the middle of the night.

We would also watch for ships—both those that we could see coming over the horizon and also those which would appear on our “radar screen”. Finally, it was always the responsibility of night watch to clean up the deck in anticipation of the new day, and to do some fishing and make breakfast.

Basically our working language on the raft was English. But when Roberto (a Peruvian) was not close by, we often lapsed into Norwegian, and Anders, the Swede, would reply in his mother tongue, which we all could understand.

STORMS

We did have to deal with several gales that suddenly whipped up in the middle of the ocean. The waves would swell six to seven meters. Fortunately, the raft

Photos

40-41. In the Polynesia islands, the Tangaroa was towed from the island of Raiatea back to Tahiti. From there, it was shipped to Bremerhaven, Germany (40,000 km) via the carrier Talisman (Wallenius Wilhelmsen).





TANGAROA / ANNE ELY THORENFELDT

The final leg of the journey from Bremerhaven to the southern Norwegian port of Larvik was completed on board the MV Bremer Roland, which belongs to Icelandic carrier Samskip. The Tangaroa arrived back in Norway on November 18, 2006. Plans are being made for the Tangaroa raft to be showcased in the new museum that is being planned for Larvik which is the town where Thor Heyerdahl grew up. The Museum is dedicated to the legacy of Heyerdahl.

“I built my first raft when I was seven years old. I want the seven-year-olds of today to do the same thing. Let them go out and take a good look at this big wondrous world around them. Let them probe deeply into nature—not just to find the right answers but more importantly, to learn to ask the right questions.”

—Torgeir Higraff, Leader of Tangaroa Voyage

After completion of the 4,000 mile voyage on a primitive raft from the Peruvian coast to the Polynesian Islands

would always lift up ever so gently above them, and then we would surf down from the top of the wave, picking up speed, accelerating up to about five knots [about 9.25 km or 6 miles per hour] before the wave subsided. That was about twice the speed that our raft usually traveled. This rate would continue for hours and sometimes, even for days. North of Easter Island, we ran into some gale-like winds that lasted for nearly a week, pushing us more than 85 nautical miles per 24 hours [about 157.5 km / 98 miles]. The record speed on Kon-Tiki was 66 nautical miles [about 122 km / 76 miles].

BACK HOME

We're back home now with 10,000 photos in hand, 100 hours of film, and a million ideas. We've often been asked to tell our story in front of a live audience though sometimes they limit us to a 15-minute session to summarize what has actually taken about 10 years to plan for and accomplish.

When it comes to radio and television, we were lucky to get five minutes of coverage and it's very rare to be featured during prime time. And often, we have felt that some journalists are not concerned with the deeper issues that we were trying to convey. Rather, they seemed more interested in learning whether we missed chocolate or not while drifting three months across the Pacific.

Within 24 hours after I had arrived back home in Oslo, someone swore at me because I had a beard and a "laid-back" appearance. Perhaps, they saw me as a threat to others who regulate their lives according to timetables and schedules. I guess I'll have to get used to all this and get shaved and dressed "properly". Back here in civilization, I see too many people who are doing what I'm doing now—sitting in front of a computer, looking at a screen and typing. "Life has become so easy," some say, "all we need to do is to push buttons". There are way too many buttons to push. Instead of meeting people face to face, here I am, sitting in front of a machine which requires me to push buttons.

And where are the people? Always on their way to somewhere else. If they relax somewhere with someone, they prefer talking on a mobile phone with someone more distant.

"Come on!" I shout, "there's a huge world of nature out there—just a few miles outside your door!" Go immerse yourself in the awesomeness of nature. Instead, people are organized in gray cubes of cement, surrounded by the sound of cars, buses, beeps and electronic melodies. For me now, this all seems so depressing and unbearable.

I can't understand why we, members of the human race, want it to be like this. Why do people want to live in big cities? Why do we kill ourselves slowly waiting in queues of cars on bigger and bigger highways?

When someone happens to mention the word "ocean", I get the feeling that they are talking about a friend that I know. It used to be different for me. The ocean was a faceless, vast thing. The same with "currents" and "waves". These concepts are all like family members now.

As a person, I don't know how much I have changed because of the trip. I still have my sea legs, though I probably won't get to use them again for a while. Now I spend more time looking at the sky, at the clouds and stars. My visual awareness is more perceptive and more powerful. I can sense the slightest changes in the weather, whereas before, I couldn't have cared less.

Sometimes when I look back, I think I was so crazy to stand in front of all those people and announce that I wanted to undertake such a project, especially since I had absolutely no experience in tackling such things. To organize an expedition like this for someone like me, who had to start from zero, is impossible if you look at the scope of the whole thing.

It was only possible by breaking it down into many small tasks, and meeting each task head on, saying, "Yes, I will do it, I promise". I didn't allow myself the luxury of saying, "Sorry, no, I have too many problems!"

It was important to be positive with every encounter, meeting anybody who could extend any assistance. Then it was necessary to deliver, again and again and again, until people started to believe, and until they told others to do the same. The effect is synergetic. When many forces are working together towards the same goal, and everybody shares the same reward, you're proud to be a small cog in a big machine—to feel part of a team that is doing something important.

FUTURE

A small, but very talented production company known as Videomaker will be producing a 50-minute documentary film about our voyage. There are plans for both Norwegian and English versions. It should be out later this spring in time to celebrate the 60-year anniversary of Heyerdahl's Kon-Tiki voyage. Major television companies can then purchase the footage.

Like the Kon-Tiki, the Tangaroa raft will be put on display, surrounded by the story of the vision of the man who inspired us. On November 18, 2006, the raft arrived back in Larvik, Norway, the town where this great explorer and experimental archaeologist grew up, thanks to Wallenius-Wilhelmsen Lines. Together with the community, they will absorb the costs. Without a

doubt, those 11 balsa logs and eight crossbeams are the most expensive logs in history. Thousands of people have been involved in the preparation process beginning with the choosing the trees in Quevedo, Ecuador, until the raft arrived back in the harbor of Larvik for the museum.

UPON REFLECTION

People always underestimate projects like Tangaroa. Some have told me: "This is not a scientific project," or "This is not a replica of the ancient rafts. You used cranes and machines to construct it."

"What?" I shoot back. "The greatest error among similar archaeological experiments was that the team organizing the project was too small and lacked sufficient resources—both in practical experience and in economical support." We are dealing with extinct knowledge and expertise, so we must compensate by spending more time and investing more labor.

Every single part of the vessel needed to be made by the very best craftsman or artisan that we could find. And every single part had to be made with all the love and care and attention that each person could possibly bring to the task.

One of the first lessons we learn when we examine archaeology or history closely is that modern man can never be as brilliant as the original boat builder whose sailing vessel is now extinct. It would be impossible for us to construct a raft like they did. Simply, we really don't know how they did it. That means we have to draw upon every resource possible.

Tangaroa is also about communication. Our job would have been easy if we had made the trip just for the fun of it, without telling others about our experiences. But we want to share our insights as much as possible about how the ancient people were able to steer such a raft across the vast oceans. That's why we had a satellite antenna and a telephone onboard.

Now we want to contribute to the Thor Heyerdahl Center that is being built in Larvik. There we will use modern technology to tell people the story of our past, and to demonstrate what methods we used to explore these questions.

Already articles about the Tangaroa have appeared in about 20 languages. I think many newspapers picked up the news item about our successful arrival in the Polynesian Islands from Associated Press (AP). While en route, we sent a short film to one of the news agencies. Already, it has been shown in as many languages. Even some of our friends in Cyprus saw us on television. I've received letters from people living in mountain villages in Austria, the coastal towns of India and in New Zealand. We also have received letters from