

Historic Voyage as a Catalyst for Inspiring Change

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Abstract—Navigator Nainoa Thompson for *Hōkūle‘a*, a replica of an ancient voyaging canoe, coined the phrase, “Navigating Change,” to implant inspiration in the hearts and minds of Hawaii’s youth to take better care of their island home. Ultimately, it was about instilling hope and a cultural based value of responsibility in our younger generation. In 2001, the Navigating Change Educational Partnership (NCEP) was formed and began to develop tools to complement *Hōkūle‘a*’s voyage, based on the Navigating Change vision, to the Northwestern Hawaiian Islands. During the voyage, over 1,800 students were involved via satellite teleconferencing conversations with crewmembers. The voyage generated almost 2,500 column inches of newspaper coverage and nearly two hours of television news coverage. For the past three years, over 200 teachers have been directly involved in implementing a comprehensive Teacher’s Guide to Navigating Change. The end of the voyage turned into a new beginning for Navigating Change: A student-driven community day was held in May 2005 with over 5,000 people in attendance as *Hōkūle‘a* sailed into Kailua Bay to honor the cumulative conservation learning and work of hundreds of students. In addition, the Harold K. L. Castle Foundation funded a half-time NCEP position to help steer the vision of Navigating Change into the future.

Recognizing Change

When Nainoa Thompson was a boy growing up in Hawai‘i, the reefs were teeming with pāpio (juvenile Jack fish), goat-fish, and āholehole (Hawaiian flagtail). Mullet drifted in so thickly they looked like the reflection of dark clouds on the water. Nainoa’s keen sense of the ocean world around him sharpened as he dove for lobsters, surfed the waves, and learned to fish beside men who filled their boats full to feed all the community. Back then, Maunalua Bay provided islanders with a critical lifeline, connecting them directly to the teeming source of their livelihood. Both nursery and spawning ground, the bay gave shelter and food sources to millions of native fish that in turn nourished the bodies and souls of the islanders who lived in the lee of the bay’s ahupua‘a (a traditional land and community division running from mountain to sea). It also served as outdoor classroom, and the lessons Nainoa learned there guide him to this day

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as he navigates *Hōkūle‘a*, the replica Polynesian voyaging canoe, through the ocean waters of the 21st century.

“Whether people want to recognize it or not, we are connected to our natural environment,” Nainoa says. Many people living in Hawai‘i today don’t understand how their disconnection from their surroundings affects their well-being. “What we do to the land and sea we do to ourselves. So, if we take care of even the smallest portion of land or ocean or the smallest creature, we take care of ourselves.”

Today, only 50 years later, things have changed drastically. A private marina, shopping centers, and condos line the adjacent shoreline of what was once an enormous ancient fishpond feeding into the bay. While natural tidal flows brought in fish that provided sustenance for the entire community, today this passageway is a dredged, silt-covered thoroughfare that provides access for boats of all kinds, including every imaginable kind of boat or water toy. The adrenaline rush from fast boats and video games has replaced that gained from exploring and experiencing the natural world. No longer can you teach a child how to find lobsters. Lobster populations have dwindled to the point that diving is not worth the effort. Although patches of coral in deeper areas are still alive with sponges, algae, and invertebrates, the overall biomass of fish has dropped by 80 percent during the last 50 years. The large schools of reef fish are gone and the sizes of individual fish are greatly diminished.

While natural resource agencies and organizations and community-based initiatives have struggled for years to protect the remnants of our native ecosystems, they have had little success in gaining much political support for the importance of their efforts. The total state funding for natural resource protection remains tragically low—less than 1 percent of the state budget. Degraded resources are accepted as “normal,” alien species are often accepted as Hawaiian, more and more native species are threatened with extinction, and the potential for negative impacts on human health are increasing. “A child today sees a world that is substandard and degraded,” says Nainoa. “Through the eyes of a child, this picture is the picture of what is healthy.”

Nainoa’s passion is to reconnect people to their world. He believes that learning to care about “place” requires teaching children healthy traditional values and demonstrating that actions have real solutions. “When a child loses the capacity to understand or care about place, a disconnect occurs,” Nainoa says. “If the gap is present now, it is only going to get bigger in the future. We must help students reconnect by providing opportunities that reawaken their observational skills and help them understand the value of nurturing their own spirituality and physical well-being through taking care of their place.”

Navigating Change

Navigator Nainoa Thompson envisioned reconnecting people with place by sailing the *Hōkūleʻa* among the wild and protected Northwestern Hawaiian Islands (fig. 1). Calling his idea “Navigating Change,” he wanted to “bring the beauty of the Earth’s rare wildlife to living rooms and classrooms to create an awareness of the difference between where nature is protected and what happens when it is not.”

Primarily an educational program echoing his father’s vision, Navigating Change was designed to inspire people to *mālama*, take care of, their native land. Thompson wants people to understand that to live well and be healthy, your ocean must also be healthy, and that for your ocean to be healthy, it must mirror a healthy land. Navigating Change provides an opportunity to show people what they have lost and what they need to do to reverse the damage. At the core of Navigating Change is *Hōkūleʻa*, a modern-day reincarnation of a double-hulled sailing vessel that has accomplished almost inconceivable navigational feats, using science built upon a foundation of ancestral knowledge.

Hōkūleʻa and Hawaiian Wilderness

A thousand years before Columbus approached North America, Polynesians were sailing across the Pacific. They voyaged to Hawaiʻi first from the Marquesas around 1,900 years ago. Then around 1200 A.D., a second group of Polynesians

headed north from Tahiti, which lies approximately 1,000 miles (1,609 km) to the southwest of the Marquesas (Wilder 2004). These long-distance voyages were perhaps made to seek more abundant island resources, to escape oppression due to societal conflicts, or perhaps for exploration purposes. Over long days and nights on the open sea, Polynesians continued to hone their traditional practice of wayfinding by implementing their vast knowledge of the stars, winds, birds, and waves that guided them to Hawaiʻi.

In the late 1970s, several hundred years after such long-distance voyaging activity ceased, a group including anthropologist Ben Finney, artist Herb Kawainui Kāne, and waterman Tommy Holmes, designed and facilitated the construction of a modern-day voyaging canoe modeled after ancient, double-hulled sailing vessels that had platforms lashed to the crossbeams. The canoe was named *Hōkūleʻa* after the star of gladness, which is the Hawaiian name for Arcturus, the zenith star that marks the islands of Hawaiʻi (Wilder 2004). To find a navigator skilled in the ancient ways was no easy feat, but eventually Mau Piailug, from the tiny island of Satawal in Micronesia, agreed to share his ancestral knowledge. His teachings inspired young Hawaiians like Nainoa Thompson, Bruce Blankenfeld, Shorty Bertlemann, and Chad Babayan, to spend years learning the ways of waves, wind, and stars.

Over the last 30 years, *Hōkūleʻa* has sailed more than 100,000 miles (160,934 km) across the Pacific. On its last long-distance voyage, in May 2004, *Hōkūleʻa* followed in the



Figure 1—*Hōkūleʻa* sails past Nihoa Island in the Hawaiian Islands National Wildlife Refuge (photo by Naʻalehu Anthony ©, used with permission).

wake of Hawai'i's ancestors to the Northwestern Hawaiian Islands. These islands, all but one of which are within the Hawaiian Islands and Midway Atoll National Wildlife refuges, extend along the northern half of the Hawaiian archipelago, reaching over 1,200 miles (1,931 km) northwest of the main Hawaiian Islands. This string of atolls, reefs, and islets embodies the definition of wilderness, and in 1974 most of the emergent land in this area was proposed as wilderness under the U.S. Wilderness Act. Further protection was afforded the surrounding state waters when the Governor of Hawai'i signed legislation creating the State Marine Refuge in October of 2005.

Extending out 50 miles (80 km), the marine ecosystem is being studied for a potential designation as the country's largest National Marine Sanctuary. This coral reef ecosystem is believed to be one of the last of its kind, alive with vestiges of marine and island wildlife that have long since disappeared from the main Hawaiian Islands. It is also one of the last places of its size on the planet in which dominant large marine predators live in concert with a diverse entourage of coral, fish, and birds, indicating a healthy, balanced system. The numbers and varieties of species are exceptional—thousands of species exist in the Northwestern Hawaiian Islands and nowhere else on the planet.

But because of their remote location and fragility, the Northwestern Hawaiian Islands will rarely be able to accommodate visitors seeking to enjoy their solitude and primitive recreational opportunities. Instead, the Fish and Wildlife Service is working with staff from the National Oceanic & Atmospheric Administration (NOAA) and the State of Hawai'i to, "bring the place to the people, rather than the people to the place." The challenge is to infuse in their audiences the spirit of wilderness found within these islands.

Navigating Change Educational Partnership

Hōkūle'a's 18-day voyage through the Northwestern Hawaiian Islands was the culmination of almost three years of preparation. In the winter of 2002, Nainoa Thompson pulled together a partnership of agencies to create educational projects and products that coordinate with and support the Navigating Change voyage and vision. He directed the partnership group on a course that would impact the lives of hundreds of students and their families. The partnership included key educators from the Polynesian Voyaging Society, Bishop Museum, Hawai'i Department of Land and Natural Resources, Hawai'i Department of Education, Hawai'i Maritime Center, National Oceanic and Atmospheric Administration (NOAA), National Fish and Wildlife Foundation, U.S. Fish and Wildlife Service, and the University of Hawai'i. The group was soon labeled as the Navigating Change Educational Partnership (NCEP).

In September 2002, Nainoa Thompson and several NCEP educators sailed on the NOAA vessel *Rapture* as part of the Northwestern Hawaiian Islands Reef Ecological Assessment and Monitoring Program. Concurrently, the Bishop Museum's Hawai'i Maritime Center opened a permanent Navigating Change interactive exhibit. The exhibit, funded by the National Aeronautics and Space Administration (NASA) and highlighting the research expedition, allowed NCEP

educators to transmit almost real-time video segments via cutting edge satellite technology to students visiting the museum. A regularly updated interagency website (www.hawaiiatolls.org) created on board the vessel, along with significant media coverage, generated increasing interest in these far-flung islands. During this time, *Hōkūle'a* was in dry dock undergoing extensive restoration as volunteers repaired dry rot, sanded, varnished, and carefully pulled lines taut.

By the spring of 2003, NCEP had developed a package of teacher resources, a Northwestern Hawaiian Islands map/poster, and a series of five video modules focused on specific Navigating Change educational themes. In April 2003, *Hōkūle'a* departed on a seven-week statewide sail in which the canoe would visit most of the main Hawaiian Islands, allowing students to meet the canoe and learn about voyaging and Navigating Change first hand. A series of nine teachers' workshops were held in conjunction with this trip.

Hōkūle'a's Voyage

Hōkūle'a was scheduled to set sail to the Northwestern Hawaiian Islands in late summer of 2003. Unfortunately, two weeks before departure a threatening hurricane and a broken mast on the escort vessel delayed departure. With winter weather approaching, *Hōkūle'a's* voyage was rescheduled for May 2004. Although disappointed, NCEP took advantage of the time to fine tune its educational products. In the fall of 2003, the State of Hawai'i's Department of Education, with assistance from NCEP, aired on Public Television a three-part series on Navigating Change via an interactive distance-learning science program. The teacher's guide was updated to incorporate the Department of Education's content and performance standards in science, social studies, language arts, and Nā Honua Maui Ola (Hawai'i guidelines for culturally healthy and responsive learning environments), so that teachers could easily incorporate the guide into their standardized curricula. This updated guide was reworked into a framework of digestible topical units that coordinated with the existing poster-sized map, video segments, photographs, Power Point presentations, the Hawai'i Maritime Center exhibit, and websites.

On May 23, 2004, *Hōkūle'a* set sail for the Northwestern Hawaiian Islands. To improve interaction with the public, the 12-member crew included a journalist, Jan TenBruggencate from the *Honolulu Advertiser*, and an education and ecological protocol officer, Ann Bell of the U.S. Fish and Wildlife Service. During the voyage, more than eighty classrooms and approximately 1,800 students were connected to the canoe's crew via satellite telephone (fig. 2). During the first two weeks of the voyage, daily 45-minute conversations allowed students from across Hawai'i, as far east as Maryland, and as far south as Samoa, to ask questions and learn about the Northwestern Hawaiian Islands. TenBruggencate reported on day-to-day life on board the canoe, often in front-page articles, instilling a greater awareness in adults of the traditional Hawaiian value of *mālama*, caring for our land and sea. Three websites followed the voyage (www.pvs-hawaii.com, www.hawaiiatolls.org, www.navigatingchange.org), posting extensive information along with journal articles by Dr. Cherie Shehata, and the public could track the canoe's daily position via a satellite tracking system. The voyage



Figure 2—Navigator Nainoa Thompson on satellite phone while U.S. Fish and Wildlife Service employee, Ann Bell, helps coordinate communication with students back home (photo by Dr. Randall Kosaki).

generated almost 2,500 column inches of newspaper coverage and nearly two hours of television news coverage.

Results

The true measure of success is perhaps best told by the participants themselves. LaTitia A. McCoy, an 8th grade teacher at Labadieville Middle School in Thibodaux, Louisiana, wrote:

I cannot say enough about the resulting experiences that these students had the opportunity to be a part of! By integrating the Navigating Change project into all subject areas, the students were actively engaged in the connections that were being made. In Science, the students learned about the ocean currents, trade winds, and navigation using the constellations above. In Mathematics, tracking of the vessel was done using the longitude and latitude coordinates daily. In Social Studies, the geography of the islands was taught and students learned in-depth information about the North-western Hawaiian Islands that most of them never knew existed before this project. (Most students didn't even know that the 50th state of Hawaii consisted of more than one island when we began this project!!) The English/Language Arts teachers even became involved by exploring new vocabulary words that the students were exposed to. In the midst of the project, every eighth grade student could tell you what the *Hokule'a* was, where and what the NWHI were, and how this event was to make an impact on their lives.

I'm sure that the impact of this event will continue far longer than any of us can imagine, but some immediate signs that these young people absorbed the information that was

being presented to them were evident in their responses to any question that was asked of them about the project. They responded with quick connections being made from Hawai'i being surrounded by water, and Louisiana being a coastal state. The erosion that takes place at an alarming rate is a concern for most South Louisiana residents and these young people are aware of the problem and hope to slow the process in their lifetime. Protecting the ecosystem is a concern also, and hearing first-hand about endangered birds that were encountered through the voyage of the *Hokule'a* brought the vision of a harmonious ecosystem to life for them.

"Cultural harmony is another issue that most young people here in Louisiana deal with on a daily basis. Hearing with their own ears (from Bruce) during one of the teleconferences that people of *all* races and ethnic backgrounds work together toward one common goal is an important asset for all crewmembers. It doesn't matter what the color of your skin is or where you were raised only that we are all human beings and together we can make this world a better place to live in for the future. This was the overall feeling that the students at L.M.S. left with after completing their last teleconference. The feeling was overwhelming for me as a teacher to see these students absorbing this 'real-life' connection that was being made. This entire experience is one that no one at Labadieville Middle School will soon forget!"

You have impacted over 120 students' lives in our school alone, not to mention all of the adults who read the local reports from our reporting media.

From Kilauea E. School on Kaua'i, Richard Larson said:

...the experience of having the children speak with you on the canoe was the most significant event from the whole

year and it happened the day before school was out. It was a fitting celebration for the year.

“For many years I have used the voyaging canoe as a symbol for the year, the cooperation, the bringing together the knowledge of the past and the present; the unseen and the seen... With so much focus on standards and assessment, I have been able to integrate what I believe to be important into the daily activities, and the curriculum. The values of ‘ohana (family), aloha (compassion), kuleana (responsibility) are just some of the cultural aspects that we use as part of the tapestry of our day, our year together.

The end of a voyage turned into a new beginning for Navigating Change. A student-driven community day, organized by Learning Education Technology Academy, was held in May 2005 with over 5,000 people in attendance as *Hōkūle‘a*

sailed into Kailua Bay (fig. 3) to honor the cumulative conservation learning and work of hundreds of students. Seven teachers who were previously involved in developing and field testing the Navigating Change Teacher’s Guide in their classrooms were chosen to set sail in August 2005 on a NOAA ship to explore and produce lesson plans about the Northwestern Hawaiian Islands. In addition, the Harold K. L. Castle Foundation funded a half-time NCEP position to help steer the vision of Navigating Change into the hearts and minds of Hawai‘i’s children.

More than 60 students spent the night on *Hōkūle‘a* during the fall of 2005 as it anchored in Maunalua Bay, a bay that nourished local families for hundreds of years and inspired Nainoa Thompson as a child. With *Hōkūle‘a* acting as a floating laboratory, students created their own baseline studies of the coral reef (fig. 4), searched the night skies and learned



Figure 3—*Hōkūle‘a* arrives in Kailua, Hawai‘i, in the main Hawaiian Islands to celebrate the work of students engaged in learning about their local bay and offshore islets (photo by Katie Laing).



Figure 4—La Piʻetra—Hawai‘i School for Girls Environmental Science Class discovers the difference between native and non-native algae in Maunalua Bay, Hawai‘i (photo by Jessica Carew).

the art of wayfinding from Thompson, and experienced the human lessons learned by working and sailing a voyaging canoe together. In these acts, the values of culture and science combine to show students that to help their crewmembers, their families, and the ocean is to help *all* life become sustainable and healthy. As Thompson explains it, “No longer do we seek only the knowledge of how to voyage between islands. We seek lessons to carry home to our children—ways

to inspire the present generation to love and preserve our Earth as a sanctuary for those who will inherit it.”

Reference

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