

FVS BOARD MEETING NOTES - 7-5-84

The meeting was called to order by Pinky at 3:40 p.m. in the Bishop Estate board room. Present: Pinky, Virginia, August, Chuck Larson, Moku, Dixon, Roy Benham, Cecilia, Mike Tongg, Lee Kyselka, Laura T.

Pinky reviewed the material which had been mailed to all board and committee members asking for comments:

- 1) Funding Proposal - suggestion was that each funding potential should be addressed individually with thought to the interests of that source.
- 2) Canoe Preparation Committee Report - schedule may change pending new departure date
- 3) Crew Selection Committee Report
- 4) Quartermaster Report - Roy Benham will assist Dennis. Harry Ho also.

Membership Committee: Moku and Ray circulated their report which listed 329 members, 90% of whom Ray counts as accurate. The list was accepted. Ray will give to Gordon for computerization.

Merger - Mike reported that after PVS merges with the Pacific Maritime Association, any contracts which have been entered into before the merger will be honored, that assets now belonging to FVS will go to another non-profit organization should PMA dissolve and that current and future PVS members will become members of the PVS division of the PMA, subject to the approval of the PMA board. After the merger, PMA will become the governing body and PVS a committee. A general meeting of the membership must be held at which time the membership must approve the merger. Tentative date: September, 1984. Ray L. and Mike will make the arrangements.

Alternate Sail Plan. Pinky circulated an alternate sail plan. Approved.

Alternate Budget. Pinky circulated an alternate budget and asked the Board to appoint a committee to raise the money. He pointed out that even if the big sail doesn't happen, \$11,600 must be raised for the repair and maintenance of the Hokule'a. Moku moved that the alternate budget be approved and that we commit ourselves to raising the funds for the first two projects listed (\$68,325) by the end of 1984. Seconded by August. Carried. The committee consists of Laura, Mike, Tony, Chuck and Leinaala. Mike will meet with the Bank of Hawaii marketing agency for assistance.

Insurance. Rey J. will pursue.

All absent members will be mailed the material considered at this meeting.

Notes taken by Moku and Laura.

H O K U L E ' A

Funding Proposal

Polynesian Voyaging Society

Voyage of Rediscovery

Through Central and Western Polynesia

1985-87

VOYAGE OF DISCOVERY

SUMMARY

This is the plan for a Voyage of Rediscovery by the canoe Hokule'a. The 27-month voyage will begin in Hawaii and go throughout the Central and Western Pacific.

The sponsoring organizations are the Polynesian Voyaging Society and the Hawaii Maritime Center. The Polynesian Voyaging Society built Hokule'a and first sailed it to and from Tahiti in 1976. In 1980, Nainoa Thompson of Hawaii navigated Hokule'a to and from Tahiti without instruments, making landfall almost perfectly on both trips. Together, the canoe, the navigator Nainoa Thompson, and the nucleus of trained crew, replicate the essentials of Polynesian voyaging.

These accomplishments are part of a 3,000-year saga. During most of the past 3,000 years, Polynesians were among the foremost ocean voyagers of the globe. Starting from Asia, they established land bases in central Pacific by the time of Christ. They then sailed southwest to New Zealand, east to Easter Island, and north to Hawaii, and many islands en route, to colonize the Polynesian Triangle. The British explorer James Cook, arriving in the 2800th year of this 3,000 year time frame, readily recognized this vast grouping as "the most extensive nation on earth." But Western contact threw Polynesian civilization into a disastrous decline, from which Hawaiians and other Polynesians are only recently beginning to recover. In this context, Hokule'a is the preeminent symbol of rediscovery. It is an important scientific and educational tool as well. This long voyage will carry the theme of Polynesian renewal throughout the Central and Western Pacific.

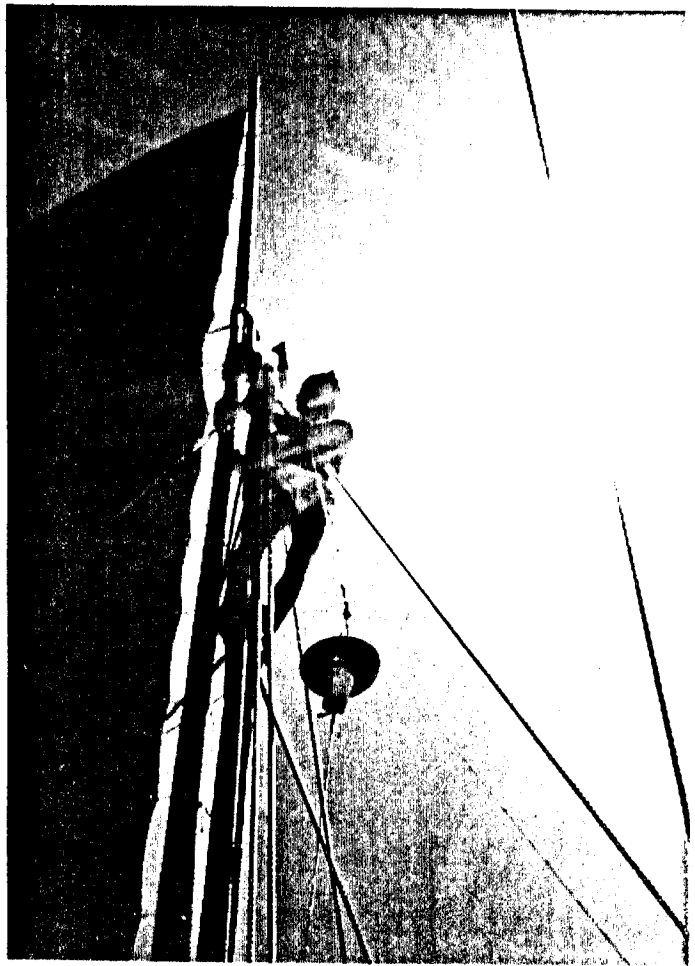
SUMMARY OF GOALS

- Cultural -- To awaken people to the extent of the Polynesian voyaging heritage, and to lay the basis for a gathering of canoes in Honolulu harbor from throughout the Pacific.
- Scientific -- To retrace the Polynesian migration routes from the Southwestern to the Central Pacific. Winds, currents and the star compass are considerably different than for the route already retraced by Hokule'a from the Central to the North Pacific.

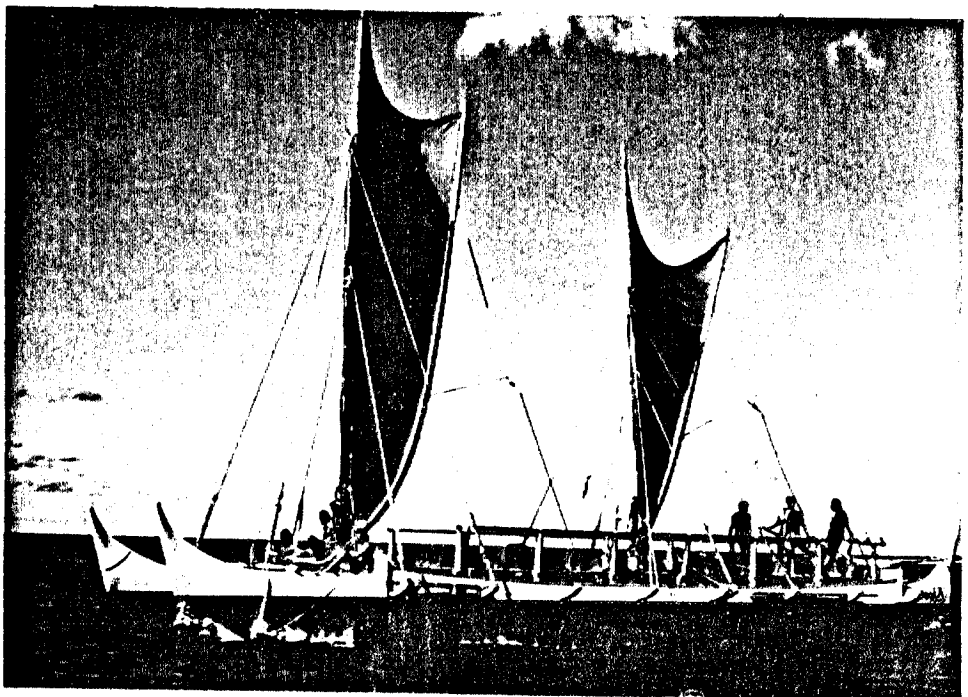
To document the wayfinding process of navigator Nainoa Thompson as he solves these navigational problems which confronted his ancestors.
- Educational -- To document and disseminate the voyage in a wide range of media; and to help establish a major educational center in Honolulu harbor.

HOKULE'A
AND NAVIGATOR

Nainoa Thompson,
atop the mast of
Hokule'a, searching
for sign of land
near Tahiti



Hokule'a under sail;
a 60-foot performance-
accurate replica
of the ancient
voyaging canoe



HOKULE'A

Over the past 10 to 15 years, there has been an upsurge in participation in many Hawaiian cultural activities -- Hawaiian literature, visual arts, crafts, music, hula and canoeing, for example. Hawaiian studies have been instituted in the entire public school system of Hawaii. The program of the Kamehameha Schools, endowed for children of Hawaiian ancestry, has been much improved --and an ambitious community outreach program has been undertaken. An elected Office of Hawaiian Affairs has been created at the level of State government.

Many people regard Hokule'a as the most important catalytic agent in this process. Certainly the building and sailing of Hokule'a was on its leading edge. Hokule'a has had a great impact on many people's lives.

POLYNESIAN VOYAGING SOCIETY

The Polynesian Voyaging Society is a non-profit, tax-exempt organization. The Polynesian Voyaging Society was responsible for all aspects of the 1976 and 1980 voyages of Hokule'a -- including such crucial tasks as research, vessel design, construction, crew selection, crew training, fund-raising, public relations and education.

The Polynesian Voyaging Society has helped meet the demand of media around the globe for information on Hokule'a. This effort has resulted in hundreds of newspaper, magazine, radio and TV stories on Polynesian voyaging. The first voyage was the subject of two films, one of which was produced by National Geographic. The first voyage was also the subject of a book, "Way to Tahiti." Research conducted on the second voyage stimulated the writing of a second book, "Ocean in Mind," focusing on wayfinding across long ocean distances. It is to be published by University of Hawaii press. The Polynesian Voyaging Society has published a series of classroom booklets for educators. PVS also has worked extensively with Bishop Museum, the main repository of information on Polynesia. Polynesian voyaging, and the techniques of navigators Mau Piailug and Nainoa Thompson, have been the subject of the Bishop Museum's daily planetarium program for the past eight years. As estimated 160,000 people from around the globe have enjoyed this program.

HAWAII MARITIME CENTER

PVS is closely relating its activities to the Hawaii Maritime Center now in existence in Aloha Tower at Honolulu Harbor. The center is engaged in dramatizing maritime history of the Pacific from canoes to hydrofoils. This is being accomplished through voyaging, by museum displays, educational projects and publications. The center is the home of the Falls of Clyde, a 106-year old, four-masted, square-rigged ship. The Hokule'a's coming voyage will be the center's maiden voyaging experience.

The physical facilities consist of:

- Historic Aloha Tower on Honolulu's waterfront as a land based museum.
- Pier 7 where Hokule'a and Falls of Clyde are moored.

Other historic vessels will be added to the fleet.

VOYAGE OF REDISCOVERY

In this third voyage of Hokule'a, the Polynesian Voyaging Society is undertaking the next major development in an historically important effort. In 1976, Hokule'a demonstrated that it was possible for the Polynesians to sail purposefully between Hawaii and Tahiti by non-instrument navigation and voyaging canoes. In 1980 Hokule'a repeated this demonstration and revived the art of non-instrument navigation in Polynesia, through the success of student navigator, Nainoa Thompson.

The coming voyage is vastly more complex and ambitious, and will cover a much longer distance. It will renew relationships among Polynesians which have been dormant for hundreds and even thousands of years. It will establish the basis for a major Polynesian marine education center in Honolulu harbor. Nainoa Thompson will undertake a staggering navigational challenge -- navigating in all directions, in the widely varying conditions of the central and western Pacific, without instrument. This will dramatize the true dimensions achieved in ocean voyaging by ancient Polynesians.

In both cultural and scientific terms, this voyage will add enormously to the positive impact already generated by the Hawaii-Tahiti voyages. This coming voyage will touch people throughout the Pacific, and indeed the entire globe.

The themes of the voyage center on renewing, rediscovering, and regenerating. But nothing is renewed without adaptation and change. So this is both a Voyage of Rediscovery and a voyage of new knowledge and new life.

THE CANOE

Knowledge of building the canoe, handling the canoe, caring for the canoe, and navigating the canoe, was passed down from generation to generation for thousands of years.

A member of the first crew of Hokule'a echoed an important theme of historians and anthropologists:

" . . .the canoe in old Hawai'i was a nucleus, a continuum, a key to the culture."

Today we cannot fully grasp the cultural importance of the canoe in ancient times. But the reality of Hokule'a today gives us a powerful clue. For those who experience it, Hokule'a is magical. More correctly, it is often said the canoe has mana. In the perspective of the ancients, Hokule'a is imbued with the power of life, nature and the gods. Hokule'a is a touchpoint in a separate reality. It leads us to a world view in which everything was truly, coherently related to everything.

THE NAVIGATOR

The 1976 voyage relied on the Micronesian navigator Mau Piailug. By the time of the 1980 voyage, Nainoa Thompson of Hawaii had reconstructed a wayfinding system of non-instrument navigation which replicated the skills of the Polynesian ancestors. Nainoa Thompson's "two star" system of navigating by an elaborate set of rising and setting stars resulted from months of training with Mau and with astronomer Will Kyselka in Bishop Museum planetarium. Nainoa's experience as the first long-distance non-instrument navigator in Polynesia in modern times allows others to share "that privileged moment of looking through a window into my heritage."

So, in total, the Polynesian Voyaging Society has reconstructed the canoe, renewed an elaborate set of ocean-going skills and revived wayfinding among remote islands. In a brief time, PVS has given new life to open-ocean voyaging by canoe.

HISTORICAL CONTEXT

Island Colonizers. During most of the past 3,000 years Polynesians were among the foremost navigators and voyagers on the globe. The Polynesians began migrating eastward from Asia about 1,000 B.C. By the time of Christ, they had established bases in the central Pacific. From that point, they fanned out in all directions to the far ends of the Polynesian triangle -- New Zealand to the southwest, Easter Island to the southeast (near the coast of South America), and Hawaii to the north. Each voyage represented different navigational problems.

The Western voyager, Captain James Cook was quick to grasp the extraordinary achievement of the Polynesians.

"How shall we account for this nation having spread itself to so many detached islands so widely disjoined from each other in every quarter of the Pacific Ocean? . . .it is by far, the most extensive nation on earth."

Canoe-builders. The colonizers thrived, and in this process, both the single-hulled and double-hulled canoe played a vital part. From ancient times we have mental pictures of a people constantly building canoes and working with canoes. The highly specialized expert, the kahuna, searches out the right tree. He chants. He invokes the gods. The quiet of the mountain forest is broken by the sound of stone adzes chipping away at the enormous trees. A dozen or more men cut with the adze, while others constantly sharpen the tools.

Many hundreds of people bring the log down the mountain, over cliffs, through valleys, across the plains to the ocean. Adzework, smoothing, caulking, lashing, sail-making and dozens of other tasks are all guided by the expert, who in turn is guided by the accumulated experience of many centuries.

At Kealakekua Bay, on the Island of Hawaii, Cook estimated seeing a thousand canoes in that one place alone. (And even at that late date, the double-hulled canoes were faster and more maneuverable than Cook's ships.)

In their collective psyche, the Hawaiians knew of the central role of the canoe. The canoe had carried them north to Hawaii, carried them from valley to valley, island to island. The canoe was their transport and highway, an item of sport and a weapon of war.

The Ocean World. Experts have argued a range of 250,000 to 400,000 people for the entire Island chain. Whatever the exact total, clearly this was a thriving population. Polynesia was over 98% ocean. There was a remarkable ease in the relationship of these people to the water.

"It was very common to see women with infants at the breast, when the surf was so high that they could not land in the canoes, leap overboard and without endangering their little ones, swim to the shore through a sea that looked dreadful." (Cook, at Waimea)

Anthropologist E.S.C. Handy, with a lifetime of observation to his credit, wrote:

"It is impossible to convey even a hint of the quality of mind and sensory perception that characterizes the human being whose perpetual rapport with nature from infancy has never been broken. The sky, sea and earth and all in and on them are alive with meaning indelibly impressed upon every fiber of the unconscious as well as the conscious psyche."

However intangible, one of Hokule'a's major contributions is the reawakening of this finely-tuned relationship with the elements of nature.

Decline and Rediscovery. Ancient Polynesia was a world unto itself. For most of recorded history, Polynesia might as well have been a separate planet. Polynesia evolved in a fundamentally different ecosystem in fundamentally differing ways. Following Western contact, ways of being, and ways of doing, practiced successfully for many hundreds of years, fell almost instantly into disuse. Much of what was "alive with meaning" was displaced, or entirely lost, in the chaotic process of Westernization. The population declined drastically. It is in this historic and cultural context that the third voyage of Hokule'a takes on its most profound meaning.

THE SAILING PLAN

The plan is to sail throughout central and western Polynesia, all the way to New Zealand.

Some sense of the scope of this plan can be gained by comparing it to the 1976 and 1980 voyages.

Navigation. In the 1976 voyage Pailug adapted his traditional east-and-west navigating skills to the north-south route between Tahiti and Hawaii.

In the 1980 voyage Nainoa Thompson applied his own adaptation. The coming voyage will require Nainoa to navigate in many directions under much more widely varying conditions.

Duration. The first two voyages were each of 2 months duration. This voyage will be approximately 27 months duration.

Distance. The Tahiti voyage covered 6,000 miles of ocean. This voyage will cover 16,000 miles, more or less.

Destinations. The first two voyages had only one basic destination, Tahiti (the second voyage briefly made landfall in the Tuamotus). This third voyage has many destinations --the Tuamotus, the Marquesas, Tahiti, the Society Islands, the Cook Islands, American and Western Samoa, Fiji, New Zealand, and Tonga (see map). These islands are on the migration route followed by the Polynesians from their place of origin in Southeast Asia. Each destination requires research, contact, protocol, logistics, travel plans, public relations, etc.

Crew. The first voyage used 34 crew. The second used 28 crew. This voyage will require the training and participation of many more crew members -- 65 or so.

REVISED BUDGET

Except for indicated salaries, this budget does not include the following donations:

Administrative Expenses	\$ 39,523.00
Use of Planetarium	2,000.00
Medical Supplies	2,000.00
Canoe Repair and Maintenance Labor	30,000.00
Physicians Services (28 months)	84,612.00
Captains Salary (28 months)	72,530.00
Crew Salary (28 months)	220,000.00
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TOTAL	\$ 450,665.00

Salaries

1. Navigator (32,000/yr. for 3 years	\$ 100,880	
2. Security Officer (1,800/mo. for 27 mos.)	52,280	
3. Administrative Assist. (1,800/mo. for 3 yrs.)	67,474	
4. Micro. Consulting Navigator 12,000/yr. Rd. trip airfare 1,400	37,400	
5. Micro. Interpreter 6,000/yr. Rd. trip airfare 1,400	<u>19,400</u>	
		277,434

Hokule'a Expenses

1. Presail - maintenance Equipment replacement and new	61,600	
2. Voyage Haul Out Repair and refit	<u>40,000</u>	
		101,600

Escort Boat Expenses

<u>20,000</u>	20,000
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Quartermaster Expenses

Total including safety equipment, Communication Equipment, Food, Medical Supplies, etc.	<u>101,213</u>	101,213
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Crew Training

Total including, Safety, Classroom, Field Studies, Food, Air Fare, Fuel	<u>16,700</u>	16,700
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Research and Documentation and Education

Total including salary of Managing Director, Documentation Design, Symposium, writer and visual production	<u>350,000</u>	350,000
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Other Expenses

1. Presail Protocol Visitations	\$ 14,000	
2. Crew change transportation cost	80,000	
3. Crew food/Lodging	170,000	
4. Gifts	11,500	
5. Hawaii Departure and Arrival Ceremonies	2,000	
6. Contingencies	<u>20,000</u>	
		<u>297,500</u>

Total Cash Required \$ 1,164,447

Pledged to date:

State of Hawaii 125,000

Hawaii Maritime Center 500,000

625,000

Balance Required \$ 529,447

Sailing the Polynesian Way

By A. A. Smyser

Editor, Editorial Page

ONE OF THE GREAT mysteries of the sea was how the ancient Polynesians successfully navigated thousands of miles of open ocean without any instruments.

One plausible theory was that they embarked on voyages of chance, with potentially great losses of life.

The last 10 years have disproved that theory and made the world aware that the Polynesians knew very well what they were about and probably sustained remarkably few losses.

There still are navigators in Micronesia who sail by the old methods and have recently come to international attention.

Hawaii also has developed one of its own, Nainoa Thompson, a 27-year-old part-Hawaiian, who has devoted most of the past few years to trying to understand the old techniques. His father, Myron, is a Bishop Estate trustee and former state cabinet officer.

Thompson proved his skill this year in successfully navigating the voyaging canoe Hokule'a from Hawaii to Tahiti and back.

Sunday night at the Bishop Museum Planetarium he explained to an interested audience (including his parents) how he did it. Part he learned from Mau Pialug, the Micronesian who helped Hokule'a navigate on its first round trip in 1976.

But he could not, he said, master Pialug's uncanny ability to practically "feel" a proper course by steering so that the ocean swells slapped and rocked the canoe with exactly the right rhythm.

THOMPSON STUDIED this technique and that of watching for birds, clouds and changes in the swells that would indicate land was near. But he leaned most heavily on the sun, moon, planets and stars.

Working in the Bishop Museum Planetarium for more than three years, Thompson was able to acquire in a short time the knowledge of the heavens that it must have taken the Polynesians years of voyaging to deduce.

He could see the North Star disapp-

pear below the horizon as a canoe from Hawaii voyaged south below the equator and the Southern Cross rise ever higher. He learned that when the distance from the horizon to the bottom star of the Southern Cross equaled the distance from the bottom star to the top star that the canoe was in the latitude of the Big Island.

He memorized 108 stars and learned that certain pairs of stars when

The Hokule'a's navigator tells how it was done.

vertical point south, others north.

He learned to divide the horizon into 32 "houses" each with a Hawaiian name. When a celestial object rose in one of the 16 houses to the east, he knew it would set in the reciprocal "house" to the west.

He learned how to keep the stern

and/or the bow of the canoe aligned to stars keying the desired direction.

He also learned that between full and new moons the flattened edge of the moon is on a north-south line.

Objects thrown into the water and timed until the canoe passed them yielded speed readings.

ON CLOUDY DAYS, Thompson would try to be guided by the swells and would make dead reckoning estimates of Hokule'a's progress. He was fortunate, he said, that his errors in this process pretty much canceled each other out.

Thompson also found that at certain latitudes, and only at those, certain pairs of stars rose and set together. These would identify the latitudes, for instance of Hawaii, the Tuamotos and the Society Islands. Differences were sufficient to also distinguish between the latitudes of the various Islands of the Hawaiian chain.

Intense observation and the creation of a mental star compass were the key to Thompson's navigational success. He is not sure that he did it exactly as the old Polynesians did it. After all, there were 1,000 years between the voyages of Hokule'a and the last Tahiti-Hawaii canoe round trips — with no written records to bridge the gap.

But he built on what he had learned from Pialug. One lesson was that knowing where you are is not as important as knowing how to get to where you want to go or back to where you came from. Navigational cross-checking with Hokule'a's escort vessel showed, however, that Thompson was usually within just a few miles of knowing where he actually was.

The Polynesian Voyaging Society now hopes, as the ancient Hawaiians would have done, to incorporate Thompson's knowledge into a chant, one that will guide future navigators who dare to set out to sea without instruments as the Polynesians did.

In the meantime, much has been done to solve an old mystery and to enhance respect for the sophistication of the ancient Polynesians.



Nainoa Thompson

