MEMORANDUM

TO: Dr. Bruce S. Anderson, Acting Director Office of Environmental Quality Control

FROM: Keith W. Ahue, Chairperson Board of Land and Natural Resources

SUBJECT: Negative Declaration to Conduct a Scientific Archaeological Survey of the Shipwreck Ha'ae o Hawai'i in Hanalei Bay, Hawai'i

The Department of Land and Natural Resources has reviewed the comments received during the 30-day public comment period which began on July 8, 1994. We have determined that this project will not have significant environmental effect and have issued a negative declaration. Please publish this notice in the OEQC Bulletin as soon as possible.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the final EA. Please contact Cathy Tilton of our Office of Conservation and Environmental Affairs at 587-0377, if you have any questions.

Enclosure
ENVIRONMENTAL ASSESSMENT
FOR
ARCHAEOLOGICAL RESEARCH
IN HANALEI BAY, KAUA'I, HAWAII

Prepared by

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for

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Submitted 19 August 1994

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This document is intended to comply with all applicable legislation of the State of Hawaii
and the United States Federal Government
ENVIRONMENTAL ASSESSMENT FOR ARCHAEOLOGICAL RESEARCH
IN HANALEI BAY, KAUAI HAWAII

1) IDENTIFICATION OF APPLICANT (SEE ATTACHED RESUME)

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2) IDENTIFICATION OF APPROVING AGENCY

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c) Roger Evans, Office of Environmental & Conservation Affairs, Department of Land & Natural Resources, P.O. Box 621, Honolulu, HI 96809-0621

d) Nancy McMahon, Archaeologist, for Dr. Ross Cordy, Head Archaeologist, Department of Land & Natural Resources, State Historic Preservation Division, 33 S. King Street, 6th Floor, Honolulu, HI 96813

e) Jeyan Thirugnanam, Planner, Office of Environmental Quality Control, 220 South King Street, Honolulu, HI 96813
f) Edward Chin for Thomas E. Arizumi, P.E., Chief, Environmental Management Division, Department of Health, Clean Water Branch, State of Hawaii, 919 Ala Moana Blvd., Room 301, Honolulu, HI 96814

g) Gary Martin, Land Agent for Kauai, Land Management Division, DLNR, P.O. Box 621, Honolulu, HI 96809-0621

h) Warren Kanai for Michael T. Lee, Chief, Operations Division, Department of the Army, U.S. Army Engineer District, Honolulu, Fort Shafter, HI 96858-5440

i) Dr. M. Kimberly Smith, Division of Aquatic Resources, DLNR, 1151 Punchbowl Street, Rm. 330, Honolulu, HI 96813

j) Dr. James D. Parrish, Hawaii Co-op Fishery Research, 2538 The Mall #165A, Honolulu, HI 96822 and Department of Zoology, University of Hawaii at Manoa

k) Dr. Sherwood Maynard, Director, Marine Option Program, School of Ocean and Earth Science and Technology, University of Hawaii at Manoa, 1000 Pope Road, Room 229, Honolulu, HI 96822

l) Dr. John T. Harrison, Environmental Coordinator, Environmental Center, University of Hawaii at Manoa, Crawford 317, 2550 Campus Road, Honolulu, HI 96822

m) Dr. John Lydgate, Department of History, Kauai Community College, Lihue, Kauai, HI 96766

n) Carolyn R. Larson, Director, Kauai Historical Society, PO Box 1778, Lihue, HI 96766

o) Dr. Warren L. Wagner, Curator, Department of Botany, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560

p) Dr. James N. Norris, Curator, Department of Botany, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560

q) Jon L. Norenburg, Supervisor, Benthic Invertebrate Section, Smithsonian Oceanographic Sorting Center, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560
4) GENERAL DESCRIPTION OF ACTION'S TECHNICAL, ECONOMIC, SOCIAL AND ENVIRONMENTAL CHARACTERISTICS

This document outlines a proposal to locate and survey the remains of the shipwreck of Haahoe o Hawaii (Pride of Hawaii), which sank in Hanalei Bay, Kauai, on 5 April 1824. Haahoe was used by the Hawaiian King Kamehameha II (Liholiho) as his royal yacht from 1820-1824. Under earlier ownership as Cleopatra's Barge, she was the first deepwater yacht built in the United States.

The yacht Cleopatra's Barge began life in Salem, Massachusetts. In 1815, the local shipping firm of George Crowninshield & Sons was dissolved upon the death of its founder, who was among the wealthiest individuals in the United States. In the spring of 1816, his eldest son and namesake George, Jr. commissioned a new vessel from one of Salem's most prominent shipbuilders. Built for his private leisure along the lines of the most successful privateer of the War of 1812, the new hermaphrodite brig measured 100 ft on deck, 23 ft in beam, 11.5 ft in depth of hold (30.5 m X 7 m X 3.5 m) and 192.4 tons. Named Cleopatra's Barge, the first private yacht built in the nation cost $50,000 to construct and another estimated $50,000 to fit out and furnish. Crowninshield died after a single voyage on the Barge, and the vessel was sold at auction in July 1818 for $15,400.

In 1820 the Boston merchant firm of Bryant & Sturgis purchased the Barge and sent her to Hawaii under Captain John Suter. Active in the China trade, Bryant & Sturgis planned to sell the famous yacht to the Hawaiian monarch Kamehameha II (Liholiho) in exchange for Hawaiian sandalwood, a commodity highly prized by Chinese artisans for furniture and the decorative arts. Within 24 hours of her arrival on 6 November 1820 at Lahaina Roads, King Kamehameha II was aboard, inspecting the famous ship; nine days later he purchased her for future shipments of sandalwood. He re-named her Haahoe o Hawaii and used her for four years as his royal yacht.

In late 1823, Liholiho decided to visit England to meet its monarch King George IV. He embarked upon a British whaler with his wife Kamamalu and $25,000, most of which was stolen at Rio. While awaiting a royal audience, both he and his wife caught the measles and died. In the meantime, his royal court had taken Haahoe for a cruise around the island of Kauai. On 5 April 1824, the brig went aground on a reef in Hanalei Bay.

Despite attempts by Native Hawaiians to haul her over the sandbar into deeper water, Haahoe could not be salvaged and was declared a total loss. There were no injuries or casualties associated with the wreck. A section of her hull washed ashore during a storm on 30 December 1844 and was declared “in quite a sound state”; the last historic reference to
her dates from the early 1850s, when Hawaiian A.S. Nuuanu obtained a permit to salvage her remains. He ceased operations after recovering two cannon and other metal materials.

a) Technical

The proposed survey methodology combines remote sensing and manual reconnaissance. In consideration of the nature of the site and its environs, the appropriate technology is a proton precession magnetometer, which detects and records the presence of ferrous metals beneath the sand/coral overburden. The specific unit is a Geometrics 806 unit with two interchangeable sensors, supplied by the Texas Historical Commission in Austin, TX (see below, personnel). A sealed marine sensor is towed behind the survey vessel; a terrestrial sensor may also be mounted on a boom off the survey vessel’s bow. The Geometrics 806 has a 1/second sample rate and output in both BCD for computer interface and dual scale strip chart for paper copy. It will be interfaced with a GPS system for target accuracy and retrieval, with a Trimble Navigation Pathfinder GPS for backup. If the U.S. Coast Guard installs its DGPS (Differential GPS) base station on Kauai in 1995 as planned and it is operational, then DGPS will be utilized for greater accuracy (±2 m). It is anticipated that 5-meter lane spacing will provide adequate recording sensitivity, in view of the shallow water depth.

Once recorded, targets will be mapped and prioritized on the basis of strength and signal nature. The strongest targets will be buoyed and visually inspected if protruding above the bay bottom. If embedded in the sand floor, the overburden will be removed manually or with a propeller-wash deflector under the supervision (underwater) of archaeologists. Once exposed, targets will be measured, drawn and recorded photographically; diagnostic artifacts (5-10 glass, ceramic, metal or wood samples) will be recovered for site verification. Test trenches will then be backfilled manually, if they do not promptly redeposit naturally.

At present, there are no conservation laboratories in the state of Hawaii with the capacity for conserving artifactual material from underwater (waterlogged) archaeological sites. Consequently, if permissible by the State of Hawaii, diagnostic artifacts will be transported back to Washington, DC for conservation and analysis at the Smithsonian Institution’s National Museum of American History. They will then be returned to an appropriate curatorial repository in Hawaii in a reasonable amount of time. All archaeological fieldwork and analysis will be conducted to the highest possible professional standards.

The collected data and diagnostics will be analyzed for information on site formation, extent and condition. The viability of further field investigations also will be determined. At that point, if additional fieldwork is warranted, a more detailed research plan will be
developed to address such topics as ship architecture and construction, decoration, alteration (yacht, coastal trader, royal yacht), armament, material cultural evidence for use in New England and Hawaii, and the like. Further historical research will also be undertaken to clarify Ha'ape o Hawai'i's role in Native Hawaiian cultural, political and economic history. Final reports or articles on this work with either positive or negative results will be forwarded to the State Historic Preservation Division, Department of Land and Natural Resources, State of Hawaii in accordance with their correspondence of 28 February 1994 (LOG NO: 10953/DOC NO: 9402NM41—attached). Copies will also be furnished to the Division of Aquatic Resources and any other interested state agencies and cultural institutions.

For this proposed field survey, three staff are required. The principal investigator and project director is Dr. Paul F. Johnston, Curator of Maritime History, National Museum of American History, Smithsonian Institution (see attached resume). J. Barto Arnold III, M.A., Texas State Underwater Archaeologist and Past-President of the Society for Historical Archaeology, is responsible for the remote sensing survey and analysis. Joseph R. Cozzi, M.A., an advanced graduate student (ABD) in the Nautical Archaeology Program at Texas A & M University, serves as project archaeologist and engineer. In addition, Dr. William N. Still, former Chairman of the Program in Maritime History and Nautical Archaeology at East Carolina University, serves as project advisor. Dr. Still moved to Honolulu in June 1994 and works with the Marine Option Program at the University of Hawaii at Manoa. A survey vessel will be chartered in Hawaii once all requisite permits are obtained and a formal work schedule can be developed.

The field research will consist of four weeks in the summer of 1995 (July-August)—the precise dates of the 30-day fieldwork are dependent upon the requisite time for acquisition of permits from the State of Hawaii and best projected weather window. At least two weeks prior to commencement of the fieldwork, the Aids to Navigation office of the U.S. Coast Guard at Honolulu will be informed, so that the information can be published in the Local Notice to Mariners (LNM). The name of the research vessel, her call sign and working channel for the LNM also will be provided to the Coast Guard. The anticipated timetable is broken down as follows:

• Week 1: travel, boat/operator charter, deflector construction and installation, remote sensing and dive gear setup, testing and calibration.

• Weeks 2-3: remote sensing survey and analysis.

• Weeks 3-4: manual target survey and site testing.
b) Socio-economic

The anticipated economic impact of the proposed survey is minor, consisting of the local charter of a survey vessel, obtaining local accommodations/lodging, and the local purchase of food and miscellaneous supplies for a survey crew of three individuals for thirty (30) days.

Due to the connection of the brig Ha’uhea o Hawaii with Hawaiian King Kamehameha II (Liholiho) during the second half of the vessel’s career, the potential for adverse social reaction from the local Hawaiian community for this project is acknowledged. Since (a) the proposed scope of work is limited to merely searching for the vessel and verifying its identity, and (b) the only reason that a limited number of diagnostic artifacts (5-10) will be removed even temporarily from Hawaii and then returned after analysis is the lack of an underwater conservation laboratory in Hawaii, it is anticipated that there will be no significant adverse social reaction.

c) Environmental Characteristics

The aesthetics, traffic levels, and current levels of air pollution of Hanalei Bay and its environs will not be affected adversely by this project, since all activities will be undertaken offshore. The water quality of Hanalei Bay also will not be affected adversely, due to the low volume of localized overburden to be removed from different sites for purposes of recording and documenting artifacts associated with the shipwreck (a maximum of 12 cubic yd [9.2 cubic m]).

5) SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT, INCLUDING LOCATION AND SITE MAPS

Geologically the eldest of the Hawaiian islands, Kauai is formed of a single shield volcano. Hanalei Bay is located on the northern central coast of the island, at the foot of the Hanalei Plain. Development of the shoreline and the small town is less than other island regions to the south and east. At its mouth, the bay measures 2.1 km (1.3 miles) in width between Makahoa Point on the west and Puu Poa Point on the east; current maximum depth is ±14 m (45 ft). The precise shape and contours of the bay and its fringe beach vary considerably from seasonal weather and storms; the 1946 and 1957 tsunamis and 1992 hurricane Iniki significantly altered the beach width.

Current use of Hanalei Bay is primarily recreational, with swimming, board and body surfing, water skiing, skin and SCUBA-diving, spear fishing, shell collecting, surf casting
and line fishing off the pier, canoeing, wind surfing, sailing and powerboating. Private
and commercial boats launch at a gently sloping beach on the western side of the Hanalei
River mouth. There is also limited commercial fishing offshore, in the deeper portion of
the bay. Yachts use the deeper waters in the eastern section of the bay for a fair-weather
anchorage. Three beach parks and several rights-of-way to the beach provide access to the
beach and inshore waters (see attached map).

a) The Bay and its Waters

Limited biological studies have been undertaken at Hanalei Bay since 1977, primarily in
conjunction with proposed shoreline development (see bibliography). For the most part,
the field research associated with these studies has lasted less than two weeks and focused
on corals and reef fish communities. Coral coverage of the inshore areas is relatively low
on account of the freshwater influence of the Hanalei River and three streams emptying
into the bay; the ±11 species identified comprise mainly *Montipora hispida*, *M. capitata*,
*Porites lobata* and *P. compressa* (finger coral), with a lesser presence of *Montipora
verrucosa*. Farther offshore, the algal coverage increases, with *Microdictyon*,
*Turbinaria*, *Sargassum* and *Tolypocladias* species predominating. Macroinvertebrates
include *Isognomonidae*-family bivalves in abundance, along with *Echinometra mathaei*
and *Tripneustes gratilla* (urchin) and *Ophiocoma* sp. (brittle star). Around 70 species of
inshore reef fish have been identified in the bay to date, with another ±80 hypothesized.
*Pteragogus spilosomes* (fantail filefish) dominates both the inshore and offshore regions,
comprising nearly half of the numbers observed; it is followed (in diminishing quantities)
by *Thalassoma duperreyi* (saddleback wrasse), *Abudafaf imparipennis* (olive damsel)
and *Eupomacentris jenkinsi* (Jenkin’s damsel); the remaining species represent quantities
of less than 5% observed. Five species of eels (puhi) also have been observed in the
inshore region. Water quality standards for the bay require a salinity variation of ±10% and
temperature variation of ±1°C; however, fresh water from the river, streams and rains
violates these standards naturally and can even create a freshwater lens over the inshore
bay region that diminishes horizontal visibility considerably.

Four species of marine animals in Hawaiian waters have been declared threatened or
endangered by federal authorities: *Chelonia mydas* (green sea turtle), *Eretmochelys
imbricata* (hawksbill turtle), *Megaptera novaenængiæ* (humpback whale) and *Monachus
schauinslandi* (Hawaiian monk seal). These animals are occasionally sighted in the
vicinity of Hanalei Bay. Further studies of the marine ecosystem and sedimentary geology
of the bay are currently underway under the auspices of the Geology Department of the
University of Hawaii and the Hawaii Co-op Fishery Research. Their field research and
data collection are scheduled for completion in December 1994 or shortly thereafter;
according to the latest available information (May 1994), their nearest monitoring stations
are several hundred meters from the shipwreck survey area and should not be affected by the proposed research. When the HCPR data subsequently are analyzed and made available, they will offer new insights into the marine plants, animals and geology of the area.

b) Surrounding Environment

Originating in the high-rainfall region in the island center, the Hanalei River is tidal for its lower 4.8 km (3 mi) and empties into the eastern side of the bay. The southwestern side of the bay is fed by the Waioli, Waipa and Waikoko Streams respectively (from the east). The Waioli Stream is tidal for ±1.6 km (1 mi) in its lower reach; the Waipa Stream for ±804 m (1/2 mi). The mouths of all these waters meander considerably as a result of the rainfall and high-energy surf zone. The beach around the bay perimeter, measuring 7.5-30.5 m (25-100 ft) in width, is ±3.2 km (2 mi) long. Composed of calcareous sands, it incorporates a gentle slope which form shallows extending along the bay perimeter offshore for an average distance of 457 m (500 yd). The eastern and western sides of the bay are characterized by large coral limestone outcrops or fringe reefs extending out from the shore. Most of the central portion of the bay is floored by sand, with small patch reefs scattered throughout (see attached chart); one of the internal reefs (Monolau), is stated by contemporary sources to have caused the wreck of Haaweo o Hawaii. Monolau Reef may be in the southeastern segment of the bay, although historical sources have also called the southwestern reef in the bay off the Waioli Stream by the same name.¹

The Hanalei River contains several native freshwater species: opae kalaole (shrimp), ahololehole and hihi-wai (mollusc), oopu nakea (goby) and three other species of oopu. Its alluvial deposits formed the Hanalei Plain behind the bay, which measures 9.7 km (6 mi) in length and 1.6 km (1 mi) wide. Current field research at the molecular level on gobies is underway and should provide further information regarding their early life cycle. The plain is principally agricultural in use through lease, with taro crops and some limited grazing land. The Hanalei National Wildlife Refuge, measuring ±371 hectares (917 acres), provides habitat for four endangered waterfowl species: the Hawaiian Stilt, Coot, Gallinule and Duck.

c) Historical and Archaeological Resources

Comparatively little information is available for local historical and archaeological sites at Hanalei Bay, aside from the 1824 wreck of the yacht Haaweo o Hawaii (the subject of this research proposal). In the early 19th century, Dr. George Shaffer established Fort Alexander

¹ Personal Communication, Frederick B. Wichman, 30 April 1994.
at Hanalei near Puu Poa, at the top of the cliffs overlooking the bay. Shortly afterwards, Protestant missionaries established an outpost at Hanalei in 1836; a restored two-story missionary house behind the Waioli Huiia church (1912) serves as a small museum displaying original period artifacts.

On 19 April 1845, the Hawaiian schooner Paalua foundered "off Hanalei Bay...in fourteen fathoms of water." Captain John Bernard and five recent immigrants from New Zealand drowned, while all the Native Hawaiians aboard except for one boy managed to swim to shore. Paalua was built on the Hanalei River by Captain Bernard. Four other shipwrecks are reported at Hanalei Bay: Victoria (1850), Fairy Queen (1878), Mary Ellen (1880) and Kekau Looho (1884); the circumstances and ultimate disposition(s) of these wrecks are unknown (loss, refloat, salvage, etc.). Three large anchors and a length of coral-encrusted anchor chain are reported at various locations around the bay; these will be surveyed and documented, and their potential association with Haaloeo o Hawai assessed as part of the proposed shipwreck survey.

The 91.4-m (300-ft) pier extending into the southeastern side of Hanalei Bay was built in the 1890s for rice transport and last used for this purpose in 1933. Placed on the State and National Registers of Historic Places in 1979, it was rebuilt in 1993 and the railroad tracks removed.

6) IDENTIFICATION AND SUMMARY OF MAJOR IMPACTS AND ALTERNATIVES

It is anticipated that the archaeological research proposed in this document will have no adverse impact upon the environment or its historical and archaeological content. The anticipated impact upon the local community is positive, in offering an opportunity to learn more about the cultural and archaeological heritage of Hawaii and of the royal Hawaiian yacht Haaloeo o Hawai. However, the potential for adverse social reaction within the local Hawaiian community is acknowledged, due to the connection of the vessel with King Kamehameha II (Liholiho) during the second half of her career.

The information to be gained from the proposed research on this vessel will enhance modern knowledge of the first ocean-going yacht built in the United States, and its role in the origins of recreational watercraft on a national basis. It will also explore the ship's use as a yacht by Kamehameha II (Liholiho) from 1820-1824. This knowledge will benefit the general public, professional and academic historical, archaeological, ethnic studies audiences and yachting interest groups.
7 PROPOSED MITIGATIVE MEASURES

Artifacts found above the floor of the bay will be measured and recorded without any disturbance whatsoever. Archaeological materials embedded in the sand but near the surface are normally exposed for recording purposes through “hand-fanning,” where a diver sweeps his/her hand over the surface sand of the bottom. Although this method is very slow, it involves no disturbance of the artifactual context and temporarily displaces only the top few centimeters of overburden. Occasionally, small garden shovels or trowels are used to loosen the sand around an artifact if the sand is hard-packed, and then the sand is hand-fanned away. This preserves the archaeological context and prevents damage to artifacts. The application of a small propeller-wash deflector is proposed as a last resort, for more deeply embedded targets beyond the capability of hand methods. A large unit is not required, since a larger boat would have too deep a draft to operate in the shallow waters of the southwestern side of the bay, where historical sources indicate that Ha'aeo o Hawaii sank.

The small deflector will be applied at the lowest possible power only under the direct underwater supervision of two archaeologists on the bottom. If/when any feature is exposed or the bottom of the test demonstrates any change in texture or color, the deflector will be stopped or cut back to minimum power to sustain recording capability. It is estimated that an average-size test for individual target ground-truthing would be a sondage of ±0.77 m³ (1 yd³). A test of this size will likely backfill itself very quickly without intervention, depending upon the tidal phase, sand liquidity (slump), water depth, storm activity and wave action. However, it will be monitored and refilled if the sondage does not naturally redeposit promptly. A maximum of 10-12 appropriately-sized targets manifested in the remote sensing portion of the survey is anticipated, each of which would require one test. This estimate is principally a function of the bottom conditions over an individual target, which cannot be assessed until an individual target’s location and signal strength are evaluated. Much depends on what remains of Ha'aeo O Hawaii, the ferrous content of the sands in the bay bottom and general locale, and solar activity, which can affect magnetometry.

In relation to coral removal, this proposal involves work on the southern side of Hanalei Bay, at Monolau Reef and the region just to the south and west of it (see attached chart). This is a shallow-water, high energy zone with a powerful wave break. Previous studies have observed very little coral growth in this area. Farther out in the bay, normal 150-year coral accumulation may be anticipated at ±1 cm (3/8 in) on exposed or recently covered inorganic materials. For larger artifacts associated with Ha'aeo o Hawaii (ordnance, anchors, etc.), a few square centimeters of coral (if present) should be removed.
from the surface to identify the age of the specimen and determine its potential association with *Haaheo o Hawaii*. Occasionally artifact assemblages are found concreted together by sand or coral, if in the past they protruded above the sand floor for a significant time period. Recovery of a small artifact concretion (±30 cm³/1 ft³) is proposed only for identification of the internal artifact(s); this conglomerate would be radiographed prior to disassembly to record context and content. Since there is no conservation laboratory in Hawaii with the capacity for conserving artifacts from underwater (waterlogged) sites, with permission of the State of Hawaii any artifacts recovered for diagnostic purposes will be conserved and studied at the Smithsonian Institution in Washington, D.C. and then returned to an appropriate curatorial repository in Hawaii in a reasonable amount of time.

The Hawaii Division of Aquatic Resources has provided information regarding the potential underlying presence of a wedge of black ooze under calcareous sediments in the eastern side of Hanalei Bay, in an area known as the “deep hole,” where yachts anchor and moor (see attached memo from Brian Kanenaka to Roger Evans dated 3 March 1994). In archaeological terminology this layer is termed a stratum (if widespread) or a lens (if localized). It is not anticipated that the survey will extend to this region of the bay, excepting only for potential verification of an anchor reported on its western perimeter. In any event, if turbidity (zero-visibility conditions) occurs during verification of this feature, it would be extremely difficult to measure and record it, and operations will be delayed or aborted if on-shore plume transport resulted. It is not anticipated that any bottom sediments will be disturbed in this component of the survey. All archaeological fieldwork and analysis will be conducted to the highest possible professional standards.

Since the shipwreck of *Haaheo o Hawaii* (if preserved) may constitute an historic site, a copy of the State Historic Preservation Program’s approval letter for this proposal and its mitigation is attached as required. Also attached are copies of the U.S. Army Corps of Engineers permit dated 22 April 1994 and CZM Federal Consistency approval dated 27 June 1994. Depending upon its integrity and condition, which will be assessed during this survey, the wreck of *Haaheo o Hawaii* may be eligible for the National Register.

8) DETERMINATION

Due to the limited scope and minimal impact of this archaeological research project, no adverse impact to the environment or the submerged cultural resource is anticipated.

9) SUMMARY OF PROPOSED USE

The Smithsonian Institution’s National Museum of American History in Washington, DC proposes to conduct a scientific archaeological survey for the wreck of the brig *Haaheo*
a Hawaii (Pride of Hawaii) in Hanalei Bay, Kauai, Hawaii. The vessel was built at Salem, Massachusetts in 1816 as the yacht Cleopatra's Barge and sold to Kamehameha II (Liholiho) in 1820. It sank in Hanalei Bay on 5 April 1824 and was declared a total loss. At the time, the Hawaiian monarch was in England; there were no injuries or casualties associated with the wreck.

The proposed survey methodology combines remote sensing and target verification in the area of Hanalei Bay where the ship sank. The remote sensing will use a marine magnetometer, which is towed behind a boat and detects the presence of ferrous metals below. Any targets located will be prioritized on the basis of signal strength and verified to ascertain their potential association with the shipwreck. Verification will be undertaken by means of visual inspection, or manual or mechanical removal of the sand or coral overburden on top of the target(s) if embedded in the bay bottom. A sum total of 12 cubic yards of overburden may be removed from the targets to identify them, and then backfilled manually if the sand does not redeposit naturally. For diagnostic purposes (if anything is found), 5-10 artifacts will be recovered, conserved, studied and then returned to a Hawaiian curatorial repository for study and/or display.

Due to the limited scope and minimal impact of this 30-day archaeological survey, no adverse impact to the environment or submerged cultural resource is anticipated.

10) SELECT BIBLIOGRAPHY

a) Historical Sources


Bingham, Hiram, A Residence of Twenty-one Years in the Sandwich Islands (Hartford: H. Huntington, 1847, 1981)

Crowninshield, Francis B., The Story of George Crowninshield's Yacht Cleopatra's Barge on a Voyage of Pleasure to the Western Islands and the Mediterranean 1816-1817 (Boston: Private printing, 1913)


Whitehill, Walter M., George Crowninshield's Yacht Cleopatra's Barge (Salem: Peabody Museum, 1959)

Wilcox, Elsie H., "Hanalei in History," The Kauai Papers (Lihue: Kauai Historical Society, 1991) 5-19

b) Biological Sources


Parrish, James D., Habitat Resources and Recreational Fish Populations at Hanalei Bay,

2 The author is grateful to Dr. James D. Parrish of the Hawaii Co-op Fishery Research and the Zoology Department of the University of Hawaii, for furnishing the marine biological references.
Johnston


11) ATTACHMENTS

a) Original document and 4 copies
b) Resumé of Principal Investigator/Project Director
c) Site map and images of Cleopatra's Barge and Ha'apeo o Hawaii
d) Copy of approval letter for this proposal and its mitigation from the Hawaiian State Historic Preservation Program, dated 28 February 1994
e) Copy of the U.S. Army Corps of Engineers Nationwide Permit, dated 22 April 1994
f) Copy of CZM Program Federal Consistency approval from the Office of State Planning, dated 27 June 1994
g) Copies of all comments received during the 30-day review period of publication of the Draft EA/Conservation District Use Application (CDUA) in the OEQC Bulletin of 8 July 1994
h) Responses to all comments in (g), above
BRIG CLEOPATRA'S BARGE, AS HAWAIIAN ROYAL YACHT

(ONLY KNOWN PICTURE AS HAAHEO O HAWAI'I)
PAUL FORSYTHE JOHNSTON

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Chairman, Archaeology Committee, Council of American Maritime Museums
Board of Directors, Society for Historical Archaeology
Vice Chair, Smithsonian Institution Scientific Diving Control Board
Bureau Diving Officer, National Museum of American History, Smithsonian Institution
Subcommittee on Archaeology, International Congress of Maritime Museums
Editorial Advisory Board, The American Neptune
Board of Advisors, MIT Museum, Massachusetts Institute of Technology
Board of Directors, Ships of Discovery
Director, National Maritime Alliance
Board of Directors, Confederate Naval Historical Society
Advisory Board, U.S. Scientific Committee for the CSS Alabama Project
Co-Chair, Underwater Archaeology Committee, Archaeological Institute of America
PUBLICATIONS:
Books and Book Chapters:


__________, Ship and Boat Models in Ancient Greece. Annapolis: Naval Institute Press, 1985


Articles:


__________, “Downbound: Exploring the Wreck of the Indiana,” Michigan History Magazine 77.5 (September/October 1993) 24-30


Articles, cont.

Is it Treasure or a Worthless Piece of Ship?, *Historical Archaeology* 26.4 (1992) 118-123

The Duty to Save Sunken Booty, "Business and Society Review" 73 (1990) 18-21


Knowledge: The Real Treasure, *Sea History* 51 (Autumn 1989) 6-7


Bronze Age Cycladic Ships," *Papers of the Temple University Aegean Symposium* 7 (1982) 1-8


Yorktown," *Institute of Nautical Archaeology Newsletter* 6.3 (1979) 7

Book Reviews:


PROFESSIONAL EXPERIENCE:

1991-93 Project Director, archaeological expedition to the wrecked steamship *Indiana* (1848), lost in Lake Superior off Whitefish Point, MI in 1858.

1990 Appointed Supervising Curator, Division of Transportation, National Museum of American History, Smithsonian Institution.


1989-92 Consultant, Turks and Caicos Islands National Museum, British West Indies. Foundation of new museum, including site selection, fundraising, administration, collections management, exhibition development and implementation.

1987-90 Consultant, Stone & Webster Engineering Corporation, Boston, MA. Submerged cultural resource research and management.

1986 Participated in seminar and consulted on museums and archaeological sites in Finland and the Soviet Union under sponsorship of Finnish government. Program included paper presentation at seminar, visitation at shipwreck site of *St. Nicolai*, an 18th century Russian warship off Kotka, Finland, and trips to maritime museums in Tallinn, Estonia and Leningrad, Russia. American Participant Program in East Africa, United States Information Agency. Participated in Bicentennial of American-Mauritian Relations at Port Louis, Mauritius and inauguration of American Studies Program at Mahatma Gandhi Institute, Mauritius. Program also included travel and lecture in Somalia, East Africa.


1984 Guest Faculty, Sea Education Association (SEA) of Woods Hole, MA. Voyage aboard SEA's staysail schooner *Westward* from Lunenburg, Nova Scotia to Bath, ME. Instructor, Massachusetts Bay Marine Studies Consortium (MBMSC). Taught History of Sea faring at Boston University.

1983 Instructor, MBMSC (see above).


1980-1981 Instructor, Department of Art History, Temple University, Philadelphia, PA.

1979-1980 Instructor, Department of Art History and Department of Marine Studies, Temple University.

1979 Assistant Field Director with Drs. Dimitrius Schilardi of the Greek Archaeological Service and
PROFESSIONAL EXPERIENCE, cont.

George Papathanassopoulo of the Greek Department of Underwater Antiquities. Underwater archaeological survey of the principal harbors on the island of Paros, Greece.

Site Supervisor with Dr. Dimitrios Schilardi of the Greek Archaeological Service. Excavation of the Late Mycenaean fortified citadel at Koukounaries, Paros, Greece. Archaeologist-Photographer with the Museum Institute of Conservation Archaeology, University Museum, University of Pennsylvania. Salvage archaeology projects of the American colonial period in urban Philadelphia.

1978 Archaeologist with Dr. George Bass, INA. Excavation of an 11th century AC shipwreck at Serçe Liman, Turkey
Archaeologist/Photographer for INA with Dr. Enrico Ciabatti of the University of Florence, Italy. Excavation of a submerged 17th century BC site off the island of Lipari, Sicily.
Archaeologist with Dr. Schilardi of the Greek Archaeological Service. The Koukounaries site, Paros, Greece.

Archaeologist with Dr. Schilardi of the Greek Archaeological Service. The Koukounaries site, Paros, Greece.
Archaeologist with Dr. Bass of INA. The Serçe Liman site, Turkey.

1976 Assistant Field Director with Dr. Bass of INA. Excavation of a shipwreck site from the Battle of Yorktown, October 1781, Yorktown, VA.

1975 Summer field school student with Drs. Bass and David Switzer of AINA. Excavation of the American privateer Defence of the Bagaduce Expedition, sunk off Castine, ME in July 1779.
February 28, 1994

Paul F. Johnston, Ph.D.
Curator of Maritime History
National Museum of American History
Smithsonian Institution
Washington, D.C. 20560

Dear Dr. Johnston:

SUBJECT: Historic Preservation Review -- Research Design and Survey Proposal for the Royal Hawaiian Yacht Haaheo O Hawai‘i

Hanalei Bay, Kaua‘i

Thank you for submitting your proposed research design dated January 1994 and your resume for our files. We can approve this research design. We concur with your scope of work, and we believe that it will have "no adverse effect" on significant historic sites if the remains of an ship are identified. We will support your request for the various permits sought from the State and the County, with the understanding that final reports or articles on your work with either positive or negative results will be sent to our office to become part of the statewide inventory.

We also agree with your desire to curate any cultural material at a local institution after your analysis. We believe that it would be appropriate to return the material to Kaua‘i. We can work out the details of this item later.

We also believe that it would be beneficial to meet with the Kauai community to explain your project prior to its beginning. This will promote community understanding. You should write or call Carolyn Larsen of the Kauai Historical Society, P.O. Box 1778, Lihue, HI 96766 / tel. (808) 822-3373. The Kauai Historical Society frequently hosts public lectures on historic preservation issues.
If you have any questions, please call Nancy McMahon at 587-0006.

Sincerely,

[Signature]

DON HIBBARD, Administrator
State Historic Preservation Division

NM: amk

c: Dee Crowell, County of Kauai
    Roger Evans, OCEA
    Carol Larsen, KHS
DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96850-5440

Operations Division

APR 2 0 1994

SUBJECT: Survey of Shipwreck, Hanalei Bay, Kauai, Hawaii

Paul F. Johnston, Ph.D.
Curator of Maritime History
National Museum of American History
Smithsonian Institution
Washington, D.C. 20560

Dear Dr. Johnston:

This responds to your April 15, 1994 facsimile transmittal regarding Department of the Army (DA) authorization for the proposed survey of the shipwreck of the yacht, Cleopatra's Barge (later renamed Haaheo o Hawaii), in Hanalei Bay. The vessel sank in the bay on April 5, 1824. The work would involve location of the shipwreck using a marine magnetometer and visually recording and documenting any artifacts that may be protruding from the bottom. For artifacts that may be embedded, hand-fanning or loosening of the sand with small garden trowels would be employed. For more deeply embedded artifacts, a small propeller-wash deflector is proposed. A maximum of 10-12 cubic yards of material would be displaced, although half that amount is realistically anticipated. All sand and bottom material would be manually backfilled if they do not naturally redeposit immediately.

I have determined that the proposed work can be authorized by the Corps Nationwide permit (NWP) authority in accordance with Federal Regulations at 33 CFR 330, Appendix A, Part B, paragraphs 18 and 19 and no further Department of the Army processing is necessary. However, as you know, you must first acquire the prerequisite Section 401 Water Quality Certification and Coastal Zone Consistency concurrence, or their waivers, from the State of Hawaii before the Corps authorization can be considered valid. You should also keep the State Historic Preservation Officer informed of your discoveries and comply with Section 106 of the National Historic Preservation Act.

Until the above state approvals, or waivers, are granted, I am issuing to you a “Provisional Nationwide Permit” for the proposed work. I am also providing you with excerpts from the regulations which list the conditions of the NWP for your information.
In addition to the permit conditions, you are advised that:

a. Nationwide permits do not obviate the need to obtain other Federal, state or local authorizations required by law.

b. Nationwide permits do not grant any property rights or exclusive privileges.

c. Nationwide permits do not authorize any injury to the property or rights of others.

d. Nationwide permits do not authorize interference with any existing or proposed Federal project.

If the state issues both certifications or waivers, this verification will take effect from the date of the second approval and remain valid for two years from the date of that approval, unless the NWP authorization is modified, suspended, or revoked. If during this two-year period, the NWP authorization is reissued without modification or if the activity complies with any subsequent modification of the NWP authorization, this verification will continue to remain valid for the two-year period. However, if during this two-year period, the NWP authorization expires, is suspended or revoked, or is modified such that the activity would no longer comply with the terms and conditions of the NWP, the provisions of section 330.6(b) (enclosed) will apply.

If the state denies either or both of the certifications for this project, then the NWP will be denied without prejudice.

File no. NW 94-038 is assigned to this project. Please refer to this number in any correspondence with us. Please contact Warren Kanai (438-9258, ext. 12) if you have any questions.

Sincerely,

Warren Kanai

for Michael T. Lee
Chief, Operations Division

Attachments
Copies Furnished (w/out attch):

Office of State Planning, CZM Program Office, Honolulu, HI
Department of Health, Clean Water Branch, Honolulu, HI
State HPO, Honolulu, HI
June 27, 1994

Paul F. Johnston, Ph.D.
Curator of Maritime History
NMAH-5010/MRC 628
Smithsonian Institution
Washington, D.C. 20560

Dear Dr. Johnston:

Subject: Hawaii Coastal Zone Management (CZM) Program Federal Consistency for Archaeological Research in Hanalei Bay, Kauai; Department of the Army Permit File No. NW94-038

Your proposal to conduct archaeological research to locate and survey the remains of the shipwreck of Haahoe o Hawaii, which sank in Hanalei Bay in 1824, has been reviewed for consistency with Hawaii’s CZM Program. We concur with your CZM assessment and finding that the activity is consistent to the maximum extent practicable with the understanding that the mitigation proposed in the CZM consistency determination and the environmental assessment will be implemented. Therefore, Hawaii CZM consistency approval is granted with the following conditions.

1. Artifacts which have been recovered and analyzed at the Smithsonian Institution will be returned to an appropriate curatorial repository in Hawaii in a reasonable amount of time. In accordance with the State Historic Preservation Division finding of no adverse effect on historic sites, final reports or articles on the archaeological work shall be sent to the Historic Preservation Division. (CZM consistency application, p. 2)

2. Dredging of test sites will be monitored to see if dredged material is immediately redeposited naturally. If not, the test sites shall be backfilled manually. Although no on shore plume from sand and/or sediment is anticipated, if it occurs then activity will be halted until the outgoing tidal cycle. (CZM assessment, p. 35)
3. No coral reef in Hanalei Bay will be adversely altered or impacted. If an artifact associated with the shipwreck is concreted to the reef by sand or coral, only the portion containing the artifact shall be removed for identification. (CZM consistency application, p. 4)

4. Any changes to the project proposal, research design or mitigation proposals shall be submitted to the Office of State Planning for CZM approval.

CZM consistency approval is not an endorsement of the project nor does it convey approval with any other regulations administered by any State or County agencies. The U.S. Army Corps of Engineers will be notified of this CZM consistency approval. Thank you for your cooperation in complying with Hawaii's CZM Program. If you have any questions, please call our CZM office at 587-2878.

Sincerely,

[Signature]
Harold S. Masumoto
Director

cc: U.S. Army Corps of Engineers, Operations Division
U.S. National Marine Fisheries Service, Pacific Area Office
Department of Health, Clean Water Branch
Department of Land & Natural Resources, OCEA & Historic Preservation Division
Planning Department, County of Kauai
U. S. Department of Transportation  
United States Coast Guard  

Debt. of Land and Natural Resources  
State of Hawaii  
Attn: Mr. Keith W. Ahue  
P.O. Box 621  
Honolulu, HI 96809  

Gentlemen:

As requested in your letter of June 24, 1994, I have reviewed the Conservation District Use Application No. KA 2722. The Coast Guard has no objection to the Smithsonian Institution's proposal to conduct a scientific archaeological survey of the shipwreck of Ha’aeo o Hawaii in Hanalei Bay, Kauai. However, I require that the Smithsonian contact my Aids to Navigation office at least two weeks prior to the start of the project so the information can be published in the Local Notices to Mariners (LNM). Further, if the Smithsonian desires other vessel traffic stay clear of the work area, they should also provide the name of the research vessel, its call sign and working channel for the LNM. The Aids to Navigation office can be reached at (808) 541-2315.

If you require further assistance or have any questions, please contact LT Susan Papuga at (808) 541-2268.

Sincerely,

J. H. HEINZ  
Captain, U. S. Coast Guard  
Chief of Staff

Copy: CCGD14(oan)
NATIONAL MUSEUM OF AMERICAN HISTORY
SCIENCE, TECHNOLOGY, AND CULTURE

19 August 1994

Captain J.H. Heinz
Chief of Staff
United States Coast Guard
300 Ala Moana Blvd.
Honolulu, HI 96850-4982

Dear Capt. Heinz:

Thank you for your review letter of Conservation District Use Application No. KA 2722, the Smithsonian Institution’s proposal to conduct a scientific archaeological survey of the shipwreck of Haahoe o Hawaii in Hanalei Bay, Kauai.

At least two weeks prior to the start of the project, I will contact your Aids to Navigation office so that the information can be published in the Local Notice to Mariners (LNM). I will also provide the name of the research vessel, its call sign and working channel for the LNM, so that other vessels may temporarily stay clear of the work area. In addition, we will fly the standard red-and-white Diver Down flag whenever divers are underwater, to inform boat traffic to maintain an appropriate and prudent distance.

Thank you again for your input and best wishes.

Sincerely,

Paul F. Johnston, Ph.D.
Curator of Maritime History

cc: Cathy Tilton, DLNR (OCEA)
July 27, 1994

To: The Honorable Keith W. Ahue, Chairperson
   Department of Land & Natural Resources
From: Peter A. Sybinsky, Ph.D.
       Director of Health
Subject: Conservation District Use Application
Applicant: Paul F. Johnston, Ph.D. - Curator Maritime History at the Smithsonian Institution
File No.: KA-2722
Request: Scientific Archaeological Survey of the Shipwreck Haalea O Hawaii
Location: Hanalei Bay, Kauai
TMK: Offshore at Hanalei Bay

Thank you for allowing us to review and comment on the subject project. We do not have any comments to offer at this time.
19 August 1994

Dr. Peter A. Sybinsky  
Director of Health  
Department of Health  
State of Hawaii  
P.O. Box 3378  
Honolulu, HI 96801

Dear Dr. Sybinsky:

This letter is in reference to your memo of 27 July 1994 to Keith Ahue, DLNR Chairperson, regarding the Smithsonian Institution's Conservation District Use Application No. KA-2722 for a scientific archaeological survey of the shipwreck of Huaheo o Hawaii in Hanalei Bay, Kauai (your reference 94-147/epo).

While I am grateful for the brevity of your review and comment, I would like to express my considerable concern regarding my related application of 18 May 1994 to the Dept. of Health, Clean Water Branch for Section 401 Water Quality Certification for this research project. To date, I have received no response whatsoever to this application—not even an acknowledgement of receipt. I have absolutely no idea where this applications stands, and believe that you should be aware that this is the only permit application to several Hawaiian state agencies for which I have not received a prompt response and courteous, professional cooperation.

I would be extremely grateful if you could locate my application and provide a status report or expedite its processing; attached is a copy of the application cover letter for your information. Thank you in advance for your consideration of this request, and please let me know if you have any questions or require further information.

Sincerely,

[Signature]

Paul F. Johnston, Ph.D.  
Curator of Maritime History

cc: Cathy Tilton, DLNR (OCEA)
Thomas E. Arizumi, P.E.
Chief, Environmental Management Division
Department of Health, Clean Water Branch
919 Ala Moana Blvd., Room 301
Honolulu, HI 96814

Dear Mr. Arizumi:

Enclosed please find three copies of a Section 401 Water Quality Certification application for an archaeological research survey at Hanalei Bay, Kauai, that the Smithsonian Institution's National Museum of American History proposes to conduct in August or September 1994.

Among the enclosures are: (1) a signed letter (original) from our Director, Dr. Spencer R. Crew, naming myself as agent for this research project and including the necessary statements regarding water quality and public notice; (2) a copy of the Draft Environmental Assessment (EA) submitted previously to the Hawaii Department of Land & Natural Resources; (3) a copy of our U.S. Army Corps of Engineers permit; (4) a copy of the State Historic Preservation Program's approval of our scope of research; (5) a site map, and (6) a copy of my résumé, as principal investigator. Since the Smithsonian Institution is a federal government agency and therefore exempt from the $100 filing fee, such fee is not included.

Since we propose to conduct this research in Hanalei Bay in either August or September of this year (the dates are dependent upon acquiring the requisite state permits), any assistance you could provide in expediting this application would be greatly appreciated. Thank you for your attention to this proposal, and please let me know if you have any questions or require further information; my numbers are (202) 357-2025/fax 357-4256.

Sincerely yours,

Paul F. Johnston, Ph.D.
Curator of Maritime History

Enclosures
MEMORANDUM

TO: Aquatic Resources; Conservation & Resources Enforcement; Boating and Ocean Recreation, Water Commission

FROM: Roger E. Evans, Administrator

SUBJECT: REQUEST FOR COMMENTS Conservation District Use Application

APPLICANT: Paul F. Johnston, Ph.D. - Curator Maritime History at the Smithsonian Institution

FILE NO.: KA-2722

REQUEST: Scientific Archaeological Survey of the Shipwreck Haheko o Hawaii

LOCATION: Hanalei Bay, Kauai

TMK(s): Offshore at Hanalei Bay

PUBLIC HEARING: YES ☐ NO ☑

DOECE: Please conduct a field inspection on this project. Should you require additional information, please call Cathy Tilton at 7-0377.

If no response is received by the suspense date, we will assume there are no comments.

[Signature]

Attachment(s)

See attached comments

Paul Kawamoto 7/7/94
State of Hawaii
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES

Date: July 6, 1994

TO: Paul Kawamoto, Aquatic Resources & Environmental Protection
THROUGH: Richard Sixberry, Aquatic Biologist
FROM: Brian Kanenaka, Aquatic Biologist
SUBJECT: Comments on CDUA File No. KA-2722

Comment Requested by Roger Evans, Office of Conservation and Environmental Affairs Date of Request 06/24/94 Date Rec'd. 06/27/94

Summary of Proposed Project

Title: Scientific Archaeological Survey of the Shipwreck of Ha'aeo O Hawaii

Project by: Paul F. Johnston, PhD. - Curator Maritime History at the Smithsonian Institution

Location: Hanalei Bay, Kauai

Brief Description:

The attached description of the proposed project and our previous comments dated March 3, 1994 and June 16, 1994 remain applicable.

attach.
State of Hawaii
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES

Date: March 3, 1994

TO: Paul Kawamoto, Aquatic Resources & Environmental Protection
THROUGH: Richard Sixberry, Aquatic Biologist
FROM: Brian Kanenaka, Aquatic Biologist
SUBJECT: Comments on Plan Review, File No. 94-516

Comment Requested by Roger Evans, Office of Conservation and Environmental Affairs
Date of Request 02/28/94 Rec'd. 03/01/94

Summary of Proposed Project

Title: Survey to Locate Remains of the Shipwreck
Project by: Smithsonian Institute
Location: Hanalei Bay, Kauai

Brief Description:

The applicant proposes to locate the royal Hawaiian yacht "Ha'ape'o O Hawai'i", lost in Hanalei Bay, Kauai on April 5, 1824. A magnetometer would be used to locate "the presence of ferrous metals beneath the sand/coral overburden" during a systematic search of the western portion of the Bay (about 1/3 of the bay). It appears that after targets are prioritized on the basis of strength and signal nature the sites with best potential will be buoyed and the overburden removed manually or with a propeller-wash deflector and afterwards backfilled.

Comments:

While the survey with magnetometer should not present a problem, the impacts of proposed removal of sand/coral "overburden" could cause significant impacts to bay turbidity, sediment infauna, surrounding coral reefs and their inhabiting fishes and invertebrates. This portion of the research must be approached with caution and can only be adequately reviewed once potential sites are identified and prioritized. Research in progress has established permanent study sites in the area to monitor fish and invertebrates; thus it would be unacceptable to alter sediments or substrate in these areas at present.

Although sand would be removed and later replaced, it is not clear if corals and other benthic habitats would be removed. Further, the applicant fails to estimate the amount of bottom area that would be disturbed which could result in a potentially significant loss of benthic organisms, prolonged turbidity, and increase in silt impacting the Bay's aquatic resources (depending on the size of the area). The possibility of finding a wedge of black ooze under calcareous sediments exists and a contingency plan should be available to avoid deleterious effects if turbidity exceeds acceptable levels. Such a plan would include the possibility of delaying or aborting sediment disturbance in the event of unfavorable current, wave action or other weather-induced onshore transport of the plume caused by exploratory activities. The applicant should also provide mitigative measures and possible alternatives to the "prop wash" method of exposing the lost vessel that could prove to be less adversely impacting to the environment. Manual methods should be used first, if possible.
State of Hawaii
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES

Date: June 16, 1994

TO: Paul Kawamoto, Aquatic Resources & Environmental Protection
THROUGH: Brian Kanenaka, Aquatic Biologist
FROM: Donald Heacock, Aquatic Biologist
SUBJECT: Comments on a Draft EA, File No. SKA-25

Comment Requested by Roger Evans, Office of Conservation and Environmental Affairs
Date of Request 05/27/94
Date Rec’d. 05/27/94

Summary of Proposed Project

Title: Scientific Archaeological Survey of the Shipwreck of Haaloe O Hawaii

Project by: Paul F. Johnston, PhD. - Curator Maritime History at the Smithsonian Institution

Location: Hanalei Bay, Kauai

Brief Description:

Previous description of the proposed project and comments remain applicable (see attachment dated March 3, 1994).

In addition, the Kauai Aquatic Biologist agrees that a more informed decision as to the potential impacts of excavating the shipwreck cannot be made until the location of the ship is tentatively identified. However, a well planned and monitored excavation and recovery of this shipwreck could have minimal and insignificant short-term impacts on the water quality and on the biota of Hanalei Bay if the shipwreck lies on or within sandy substrate, with no or minimal encrusting coral growth. Also, the applicant should work closely with researchers that are presently monitoring the Hanalei Bay biota.
19 August 1994

Henry Sakuda, Administrator
Division of Aquatic Resources
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809-0621

Dear Mr. Sakuda:


I am grateful for Mr. Kanenaka's comments of 3 March 1994 on my preliminary proposal; they proved most helpful in the preparation of the Draft EA submitted to the DLNR on 11 May 1994. I believe that all of the issues raised in his memo were addressed in the Draft EA, particularly those matters pertaining to movement of sand and coral, estimate of bottom area to be disturbed, turbidity, black ooze and prioritization of manual over mechanical means of exposing shipwreck artifacts.

I am also appreciative of Mr. Heacock's comments, and especially his understanding that a fully informed decision regarding the potential impacts of shipwreck excavation cannot be made until the location is tentatively identified. I have also taken to heart his advice to work closely with researchers presently monitoring the Hanalei Bay biota—in April, I met for several hours with their supervisor Dr. James Parrish, chatted with project director Dr. Kimberly Smith, and went diving with researchers Alan Friedlander and Ralph DeFelice in Hanalei Bay. All were universally helpful, both with the biological background as well as with my (endless) logistical questions, and I am extremely grateful for their intellectual generosity and patience. I also attempted to contact Mssrs. Heacock and Kanenaka by telephone during my brief visit to Hawaii; unfortunately however, the trip coincided exactly with the strike and I could not reach them!

Presuming that eventually all the requisite permits will be secured for this project, I would like to take this opportunity to invite your division's participation in this project in whatever capacity appropriate—perhaps as a monitor or more active participant. In the
meantime, thank you again and please let me know if you have any questions or require further information.

Sincerely,

[Signature]

Paul F. Johnston, Ph.D.
Curator of Maritime History

cc: Cathy Tilton, DLNR (OCEA)
Ms. Cathy Tilton  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809-0621

Dear Ms. Tilton:

Draft Environmental Assessment (EA)  
Hanalei Bay Archaeological Research  
Hanalei, Kauai

The referenced document describes the proposed scientific archaeological survey in Hanalei Bay. The survey will be conducted under the auspices of the Smithsonian Institution's National Museum of American History. The target of the expedition is the brig Haahao o Hawaii which sank in Hanalei Bay on 5 April 1824. The methodology used for the survey will be remote sensing employing a marine magnetometer with follow-up manual target verification. A total of 12 cubic yards of overburden will be removed from the targets to identify them, and then will be backfilled. For diagnostic purposes, 5-10 artifacts will be recovered, conserved, studied and then returned to a Hawaiian curatorial repository.

This review was completed with the assistance of Michael Graves, Anthropology; Marshall Mock, Physical Science/Kauai Community College; and Chris Welch, Environmental Center.

The referenced document was found to be well formatted, concise, and to contain information pertinent to the conduct of the marine survey. One main point, however, seems to be missing from this otherwise well done draft EA. The scope of the socio-economic analysis needs expansion. Of interest is the potential social effect of disturbing an archaeological site that had connection to the making of Hawaii. Historical and archaeological artifacts are a sensitive subject to the local population because many monuments and sites have been desecrated. Section 4 (General Description of Action's Technical, Economic, Social and Environmental Characteristics) simply refers to the accommodations for three
As Cathy Tilton
August 8, 1994
Page 2

crew members in terms of socio-economic effects of the expedition. No mention is made in this section regarding the array of reactions that the survey could potentially cause within the local Hawaiian community. In section 6 (Identification and Summary of Major Impacts and Alternatives) a brief statement is made saying that "[t]he anticipated impact upon the community is positive, in offering an opportunity to learn more about the cultural and archaeological heritage of Hawaii and the royal Hawaiian yacht Haaleo o Hawaii." Although this is one potential impact, other socio-economic impacts need to be identified as well. Since the Haaleo o Hawaii did belong to a Hawaiian king, part of the EA should also address the potential for adverse social reactions to the disturbance of the ship and the procurement of artifacts.

Additionally, a minor modification needs to be made. In section 5 (Summary Description of Affected Environment, Including Location and Site Maps) the statement about endangered marine animals needs correction. The document asserts that Chelonia mydas (green sea turtle), Eretmochelys imbricata (hawksbill turtle), and Megaptera novaeangliae (humpback whale) are the only current Hawaiian marine species recognized as endangered by federal authorities. To this list Monachus schauinslandi (Hawaiian monk seal) needs to be added.

Thank you for the opportunity to comment on this document.

Sincerely,

John T. Harrison, Ph.D.
Environmental Coordinator

cc: OEQC
Smithsonian Institution
Roger Fujioka
Michael Graves
Marshall Mock
Chris Welch
19 August 1994

Dr. John T. Harrison
Environmental Coordinator
Environmental Center
University of Hawaii
Crawford 317
2550 Campus Road
Honolulu, HI 96822

Dear Dr. Harrison:

Thank you for your review letter dated 8 August 1994 of Conservation District Use Application No. KA 2722, the Smithsonian Institution’s Draft Environmental Assessment of a scientific archaeological survey of the shipwreck of Haheo o Hawaii in Hanalei Bay, Kauai (your reference: EA:0079).

I enjoyed our telephone conversation on 16 August and understand more fully your comments regarding the brevity of the draft EA section addressing the socio-economic impact of the proposed research and the potential array of reactions within the local Hawaiian community. My remarks were designed to cover the socio-economic impact of a brief survey, or search for a shipwreck, not a full-scale excavation. Nevertheless, I have consulted with Alicia Cutler, our native Hawaiian staff here at the National Museum of American History at every step of the process, and have attempted to contact local Hawaiians such as the Hawaiian Farmers of Hanalei, Inc. to invite their participation and support for this proposed research (see attached letter of 28 June 1994). In addition, I have been in regular contact with staff, trustees and members of the Kauai Historical Society, as well as numerous people in the town of Hanalei, ranging from the pastor of the Waioli Mission Church to local sportdivers and business people—in fact, anyone who would listen! In short, I have attempted to be as inclusive as possible right from the start, for the very reasons you outline in your review.

To date, the response has been gratifyingly positive; the only published concern of which I am aware is that any artifacts associated with the project should remain in Hawaii. Since this has always been my stated intention, I perceive this as supportive of the project objectives rather than negative. Although a copy of the Draft EA was forwarded to the Office of Hawaiian Affairs, they did not submit any comments. Quite frankly, I do not know whether this is positive or negative—nor do I know how to find out.
In summary, while I am fully aware of the potential for adverse social reaction to this project, I am hesitant to speculate what could or might occur, particularly within the confines of a scientific archaeological research proposal. I have sought local Hawaiian input to the best of my ability right from the outset and continue to do so, and I appreciate the advice provided by your comments. Might the fact that Haaheo o Hawaii had her roots in New England as Cleopatra’s Barge for the first half of her life, and only became Hawaiian for the second half explain the general lack of local response to date? I also appreciate your correction on the monk seal for the list of endangered marine mammals and will add it immediately.

Thank you again for the Environmental Center’s input, and best wishes.

Sincerely,

[Signature]

Paul F. Johnston, Ph.D.
Curator of Maritime History

Enclosure

cc: Cathy Tilton, DLNR (OCEA)
28 June 1994

Mr. David Sproat
Hawaiian Farmers of Hanalei, Inc.
P.O. Box 1516
Hanalei, HI 96714

Dear Mr. Sproat:

I am writing to you at the suggestion of Ms. LaFrance Kapaka-Arboleda, who thought that your association would be interested in an archaeological research project I have proposed for Hanalei Bay. Briefly, my proposal involves an archaeological survey for the wreck of the yacht Haakea o Hawaii, which sank in Hanalei Bay on 5 April 1824. At the time of its loss it belonged to King Liholiho, who purchased it in 1820 from a Boston company. It was originally built in Salem, MA in 1816 for George Crowninshield, Jr.

Although I hear many stories in my job, the tale of Haakea o Hawaii has always been my personal favorite. It has been my dream for over a decade to come to Kauai one day and search for any remains of this famous yacht that may be preserved in the bay. Of course, it is entirely possible that nothing is left, due to storms and the many other factors affecting shipwreck preservation in shallow water.

Attached is a copy of our application to the state of Hawaii and a draft environmental assessment. There are a few points worth emphasizing. First and foremost, right from the start I have proposed that all artifacts would remain on Kauai after they are conserved. The only reason I request taking a few diagnostic artifacts off-island for a short time is because there are no underwater conservation labs in Hawaii, and we have a good one here. Secondly, this proposal is only for a survey to search for the shipwreck, not to actually excavate it. If there is enough material to warrant further investigations in the future, we would prepare a complete, detailed plan on how best to proceed, with input from yourselves. Thirdly, our survey proposes to move a total of only 12 cubic yards of sand out in the bay, and if that sand does not immediately redeposit naturally, we will backfill it manually. Lastly, there will be no coral reef infringement whatsoever, so that the environmental impact of the proposed activity would be virtually non-existent.

I was out in Hanalei this past April to look into the logistical possibilities for this search, and I am
very sorry that I did not know of your association at that time. I would have liked very much to meet with you personally and explain our plans and objectives. In any event, I hope that the enclosed will address any questions you may have, and I would be very grateful for the support of your association for this proposal.

Thank you for your consideration of this request, and best wishes. Please let me know if you have any questions or need more information; my phone is (202) 357-2025.

Sincerely,

COPY

Paul F. Johnston, Ph.D.
Curator of Maritime History

Enclosure
June 15, 1994

LOG NO: 11787
DOC NO: 9406NM25

MEMORANDUM

TO: Roger Evans, Administrator
    OCEA

FROM: Don Hibbard, Administrator
      State Historic Preservation Division

SUBJECT: Historic Preservation Review — File No. SKA-25
     Research Design and Survey Proposal to Locate Remains of the
     Shipwreck of Hanheo O Hawaii (Johnston, Smithsonian)
     Hanalei Bay, Kauai

We approve of this research design and the scope of work. We believe that the project
will have "no adverse effect" on significant historic sites. A final report on the work with
either positive or negative results needs to be sent to our office for review and approval.

We concur with the applicant's desire to curate the cultural material at a local institution
after analysis. We believe that it would be appropriate to return the material to Kaua'i.
We can work out the details on this item later.

If you have any questions, please call Nancy McMahon at 587-0006.

NM: ank
NATIONAL MUSEUM OF AMERICAN HISTORY
SCIENCE, TECHNOLOGY, AND CULTURE

19 August 1994

Don Hibbard, Administrator
State Historic Preservation Division
Department of Land & Natural Resources
33 S. King Street, 6th Floor
Honolulu, HI 96813

Dear Mr. Hibbard:

This letter is in reference to your review of my Draft EA proposing to conduct a scientific archaeological survey for the shipwreck of Haakeo o Hawaii at Hanalei Bay, Kauai (your reference: LOG NO: 11787/DOC NO: 9406NM25—memo to Roger Evans dated 15 June 1994).

I appreciate your review of this proposal, your approval of the research design and scope of work, and your belief that this “project will have ‘no adverse-effect’ on significant historic sites.” A final report on the work with either positive or negative results will be sent to your office for review and approval.

Also appreciated is your concurrence that any cultural material should be curated at a local institution after analysis and your suggestion that the material be returned to Kauai.

Thank you for your input and best wishes.

Sincerely,

Paul F. Johnston, Ph.D.
Curator of Maritime History

cc: Cathy Tilton, DLNR (OCEA)
MEMORANDUM

TO: Mr. Roger Evans, Administrator
Office of Conservation and Environmental Affairs

FROM: W. Mason Young, Administrator
Division of Land Management

SUBJECT: Conservation District Use Application, Hanalei Bay, Hanalei, Kauai

We spoke to Paul Johnston of the Smithsonian Institute when he called to inquire about procedures necessary for approval to search for the shipwreck of Hachoo O Hawaii. Mr. Johnston agreed to share his findings with the State, consequently, we have no objections to issuance of CDUA to Mr. Johnston.

Thank you for this opportunity to comment.

W. MASON YOUNG

cc: Kauai Land Board Member
Kauai District Land Office
19 August 1994

W. Mason Young, Administrator
Division of Land Management
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Young:


I wish to reiterate my commitment to share my findings with the State of Hawaii and am appreciative of your lack of "objections to issuance of CDUA" to this project.

Thank you for your input and best wishes.

Sincerely,

Paul F. Johnston, Ph.D.
Curator of Maritime History

cc: Cathy Tilton, DLNR (OCEA)
MEMORANDUM

To: Roger Evans
From: Sam Lee

Subject: File KA-2722, Scientific Archaeological Survey of the Shipwreck Haahoe O Hawaii, Hanalei Bay, Kauai

We have had the opportunity to review this CDUA request, and determine that the project does not adversely impact any lands or programs managed by DLNR-Division of Land Management. We have no objection to the project.

Thank you for providing us with the opportunity to review and comment.

cc: Mason Young
    Herbert Apaka, Jr.
    ML:ml
19 August 1994

Sam Lee
Division of Land Management
Department of Land and Natural Resources
State of Hawaii
3060 Eiwa Street, Rm. #306
Lihue, HI 96766-1875

Dear Mr. Lee:


Thank you for your review of this CDUA request and determination that this project does not adversely impact any lands or programs managed by DLNR-Division of Land Management. I further understand that you have no objection to this project.

Thank you for your comments and best wishes.

Sincerely,

[Signature]
Paul F. Johnston, Ph.D.
Curator of Maritime History

cc: Cathy Tilton, DLNR (OCEA)
July 12, 1994

Keith W. Ahue
State of Hawaii
DLNR-Office of Conservation and Environmental Affairs
P. O. Box 621
Honolulu, HI 96809

Attention: Cathy Tilton

Subject: Conservation District Use Application KA-2722
Archaeological Survey of the Shipwreck Haaheo O Hawaii
Hanalei Bay, Kauai

Thank you for the opportunity to comment on the above referenced application. The makai boundary of the County of Kauai Special Management Area (SMA) is generally at the vegetation line, and based on the information contained in the Draft Environmental Assessment and Supplemental Information Pages it appears that the project will not involve development within the SMA. Therefore an SMA Permit will not be required.

However, if the project involves development within the SMA, such as the construction of a structure, an SMA Permit will be required. A copy of the definition of development contained in the County SMA Rules and Regulations is attached for your information.

Please contact George Kalisik at 241-6677 if you have any questions.

Sincerely,

Keith Mitta,
Acting Deputy Planning Director

enclosure

cc (w/enclosure): Paul F. Johnston
19 August 1994

Keith Nitta
Acting Deputy Planning Director
County of Kauai
4444 Rice Street, Suite 473
Building "A"
Lihue, Kauai, HI 96766

Dear Mr. Nitta:

Thank you for your review letter of 12 July 1994 of Conservation District Use Application No. KA 2722, the Smithsonian Institution's proposal to conduct a scientific archaeological survey of the shipwreck of Haawe o Hawaii in Hanalei Bay, Kauai.

In relation to your comments, it is my understanding that an SMA permit will not be required for the proposed project since the geographical scope of the proposal is not within the SMA. I further understand that if the project did lie within the SMA, an SMA permit would be required, and I appreciate your provision of a copy of the definition of development contained in the County SMA Rules and Regulations.

Thank you for your comments and best wishes.

Sincerely,

Paul F. Johnston, Ph.D.
Curator of Maritime History

cc: Cathy Tilton, DLNR (OCEA)

Smithsonian Institution • Washington, D.C. 20560