

Assessing Historic Properties and Cultural Resources in the Main Hawaiian Islands

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Abstract

Understanding the types and locations of significant archaeological and cultural resources is essential to their protection. NOAA and the Bureau of Ocean Energy and Management (BOEM) have teamed up to support an assessment of historic properties and cultural resources in the main Hawaiian Islands. Objectives for this project include: 1) a database of verified, reported, and potential submerged cultural resources in the Hawai'i Outer Continental Shelf; 2) a database of historic properties that could be adversely impacted by alteration of the ocean viewshed; and 3) a management tool for engaging Native Hawaiian communities in identifying significant marine areas for offshore energy development planning purposes.

Key words: Resource Management, Hawaiian Islands, Indigenous community, Mitigation, Viewshed

Origin of the Project

The remote main eight Hawaiian Islands are approximately 3,900 km from the North American continent, 6,000 km from Japan, and 7,000 km from Papua New Guinea. Their coasts and near shore waters represent, for the most part, a high-energy marine environment subject to the prevailing northeasterly Trade Winds, open ocean swells, Pacific storms, quake-generated tsunami, and passing hurricanes. There are few natural harbors or safe anchorages, though fringing and barrier reefs provide some protection. The warm clear waters are home to the *Teredonavalis* shipworm, and currents and surge contribute to sand scouring and marine weathering of all artifacts. However, compared to continents, the waters around the Hawaiian Islands drop off very quickly. For instance, 300-600 m are typical depths for the three-mile limit around the

island of O‘ahu. At these depths, historic wreck sites are little affected by the recurring storms and tsunami events that impact the upper ocean levels.

Initiating a comprehensive and systematic documentation of cultural resources for the marine environment of the main Hawaiian Islands (survey does not include the remote Northwestern atolls) is a challenging and daunting task. No such comprehensive survey has yet been completed, though some progress has been made in gathering specific information regarding historic properties such as shipwrecks and submerged aircraft. Hawai‘i’s high-energy marine environment has long been hazardous for mariners, and hundreds of ships have been reported lost. But one of the most interesting challenges for understanding underwater cultural heritage (UCH) in the islands is the fact that, until recent years, the overall definition of cultural resources in Hawai‘i generally did not include historic properties like shipwrecks, so commonly recognized as UCH in other locations.

In general, the main focus of cultural resource efforts in Hawai‘i has been the maintenance and preservation of indigenous cultural access, traditional practices, and active human connections and relationships to marine species and culturally significant natural resources. These are issues of immediate importance to local communities, dynamic issues that bear directly on maintaining cultural practices and cultural identity. The fact that shipwreck archaeology is relatively new to the islands is not due to a lack of attention to cultural resources; just the opposite, it is due to the fact that cultural resources and resource preservation, in the *broadest* sense, have been and are overwhelmingly important in Hawai‘i. Historic properties like shipwrecks represent the new element or “player” brought into an existing and much older discussion.

Historic wreck sites are obviously important to archaeologists and historians as unique and non-renewable sources of information. They have also been important to Hawai‘i’s recreational diving industry and even to fishermen as productive fishing sites. Yet historic wreck sites have not been part of the cultural resource discussion at a program or agency level until more recent years. For instance, while cultural resources are a large part of the 2012 *Hawaii Ocean Resources Public Management Plan* (Anon, 2012), shipwrecks or submerged historic properties are not mentioned within the

document. Sensitivity to Hawai'i's unique history and a special sense of place is required for understanding cultural resource governance in the islands.

This presentation focuses on a new and innovative resource management three-year inventory project, the *Maritime Cultural Resource Site Assessment in the Main Hawaiian Islands*, funded by the U.S. Department of the Interior, Bureau of Ocean Energy Management (BOEM), through an Interagency Agreement with the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Ocean Service. This project proposes new ways of conducting cultural resource inventory work, methods that are better suited to recording information in a manner that recognizes Hawai'i's investment in cultural resource management, and better suited to engaging Native Hawaiian Organizations and communities, as well as accounting for the existing values that archaeologists and historians bring to the mix.

The origin of this project is actually the State of Hawai'i's effort to reduce greenhouse gas emissions and develop local energy independence. The State supports a mandate to achieve 70% "green" energy independence by the year 2040. Offshore renewable energy development will be a part of the effort to meet this goal. Understanding the types and locations of significant archaeological and cultural resources will be essential to their protection in the context of this coming development. Therefore, NOAA and the Bureau of Ocean Energy and Management (BOEM) have teamed up to support the site assessment project, producing the tools of the desk-based assessment for the entire main eight Hawaiian Islands, prior to the specific proposal of any single specific development project.

There are three main objectives for this project: 1) create a database of verified, reported, and potential submerged cultural resources in the Hawai'i Outer Continental Shelf; 2) create a database of historic properties on shore that could be adversely impacted by alteration of the ocean viewshed; and 3) create a management tool for engaging Native Hawaiian communities in identifying significant marine areas for offshore energy development planning purposes. There are a number of important benefits stemming from the overall goal of resource protection from potential impacts. For NOAA the project will help meet the agency's mandate to inventory historic properties, and most importantly build on two decades of growing social awareness of

maritime heritage properties in Hawai'i. For BOEM the project will obviously facilitate decision-making for offshore renewable energy development by providing the groundwork for cultural resources review, helping make siting decisions more efficiently. Finally, for Native Hawaiian stakeholders the project will (hopefully) better engage communities with agencies prior to the proposal of activities that may impact resources.

Objective 1: Database of Verified and Potential Submerged Cultural Resources on the Outer Continental Shelf

(Note: the volcanic islands of Hawai'i originate in a denser oceanic tectonic plate, not a lighter continental plate; hence, they have no actual continental shelf. Here the term OCS is used to designate the main study zone from 3-200 miles offshore).

Objective 1, the inventory of verified, reported, and potential submerged cultural resources on the Hawai'i outer continental shelf, will be the most familiar to maritime archaeologists as it replicates, in part, the standard desk-based assessment tool highlighted in UNESCO's UCH Foundation courses, and published in the *Training Manual for the UNESCO Foundation Course on the Protection and Management of Underwater Cultural Heritage in Asia and the Pacific* (UNESCO, 2012). NOAA sanctuary staff are currently examining primary and secondary archival sources and developing a Microsoft Access database of confirmed, reported, and potential submerged archaeological resources within the survey area. The project specifies the 3-200 mile offshore Federal waters zone, but existing data for the near shore 0-3 mile zone may be included as well, in order to make a more usable inventory. The targeted archival sources include: the Hawai'i State Historic Preservation Division records; State and Federal shipwreck databases; the Bernice Pauahi Bishop Museum; internet sources; maritime insurance companies records; the National Archives (e.g., customs house records, wreck reports, Federal Admiralty court records, etc.); public, private, and academic libraries; public and private maritime museums; historic newspapers (including currently available translations of Hawaiian language newspapers), private papers and collections; historic maps and navigation charts; archaeological site reports; and federal, state, and private hangs and obstructions databases.

Though the shipwreck topics relatively new here in Hawai'i, there is existing field information in a variety of forms: numerous shallow water maritime archaeology site

plans and surveys (SCUBA depths) by NOAA and University of Hawai'i divers as part of the Maritime Archaeology Survey Techniques courses; discoveries, images, and informal reports by sport and technical divers; and multiple deep water site discoveries, including high-definition video surveys, by the Hawai'i Undersea Research Lab (HURL). HURL was established in 1980 as a joint NOAA/University of Hawai'i center with the primary responsibility of advancing knowledge of the nation's deepwater resources and marine processes which are crucial for effective ecosystem-based management. HURL has two three-person research submersibles; *Pisces IV* and *Pisces V* (Fig. 1). These are battery-powered, one-atmosphere submersibles with a maximum operating depth of 2000 m (6,280 ft). They offer scientists direct observation through three view ports, high-definition video cameras, instrument placement, sample collecting, and environmental monitoring. Though maritime archaeology and cultural resource management has usually not been a priority for fully-funded missions, HURL has investigated numerous maritime heritage properties during their pre-season training dives, preparing both submersibles and pilots prior to the dive season (Fig. 2). Maritime archaeologists have been able to take advantage of the excellent working relationship between NOAA and the University of Hawai'i, and the generosity and professionalism of HURL Operations Director Terry Kerby and his staff, to gain unique data on deep water discoveries.

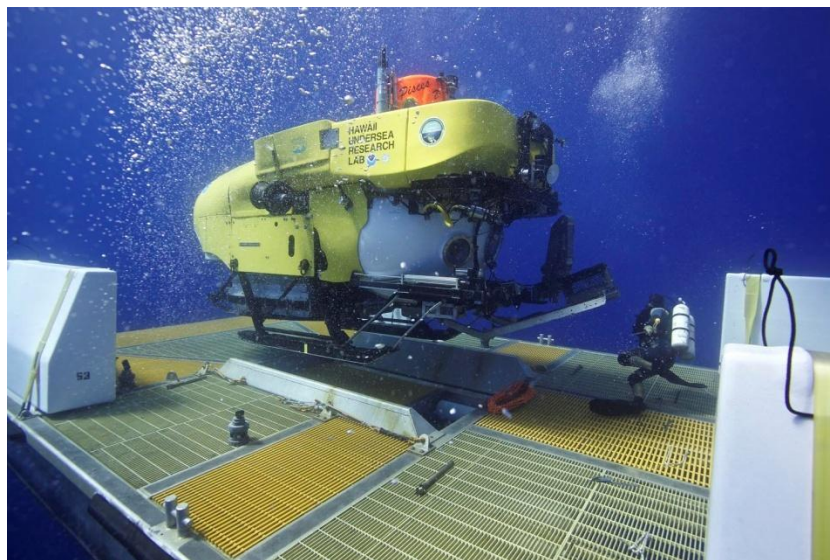


Fig. 1 HURL 3-man research submersible PISCES V launching from the submerged LRT.(C. Wollerman, HURL)



Fig. 2 Deep water discoveries of naval aircraft circa 1938, one of many types of resources found by the HURL team. (H. Van Tilburg, NOAA ONMS)

Several important documents and collections provide critical background information for the UCH inventory, though some include only near shore (0-3mi) information. The 1989-1990 *Hawaiian Fishpond Study* including the islands of O‘ahu, Moloka‘i, Maui, Lāna‘i, Kaua‘i, and Hawai‘i is the largest state-wide statistical survey of coastal fishpond field data, supported by the Bishop Museum (DHM: 1989; 1990). Mifflin Thomas’s *Hawaiian Registered Vessels* lists statistical and service data for selected ships of both the historic Kingdom period 1800-1893 and subsequent Territory of Hawai‘i period 1893-1959 (Thomas, 1982). *Thrum’s Hawaiian Annual 1842-1932*, Honolulu features an annual summary of marine casualties. Specific shipwreck losses can also be traced through newspaper issues of the *Pacific Commercial Advertiser* (1856-1912) (later the *Honolulu Advertiser*), as well as the local *Star Bulletin* (1912-2001). Finally, naval shipwreck and aircraft losses have been detailed in *U.S. Shipwrecks in Hawaiian Waters: an Inventory of Submerged Naval Properties* (Van Tilburg, 2002) produced by a grant from the Naval Historical Center in Washington DC (now known as the Naval History and Heritage Command). Inventory work is continuing to build upon this foundation.

The existing and somewhat scattered field and archival inventory data is focused on 0-3 mile near shore resources and suggestive of three broad categories of cultural heritage resources: 1) pre-western contact Native Hawaiian archaeological sites such as coastal fishponds and fish traps; 2) 19th and early 20th century commercial transportation, including whaling and sealing ships, Pacific cargo vessels, and inter island steamships servicing the (former) Hawaiian plantations; and 3) military vessels, including surface ships, submarines, and submerged naval aircraft. The offshore 3-200 mile OCS inventory brings a new focus and new dataset to the fore.

Objective 2: Database of Historic Properties that could be adversely impacted by Alteration of the Ocean View Shed

For Objective 2, NOAA sanctuary staff will conduct research in the office of the Hawai'i State Historic Preservation Division and develop a database of terrestrial properties that could be visually affected from offshore renewable energy siting. The data to be collected includes historic and archaeological information related to properties that are nominated to, or are eligible for, listing on the U.S. National Register of Historic Places. This may seem like an odd task for maritime archaeologists. For preservationists and cultural practitioners, however, the connection is clear.

The National Register establishes criteria for measuring historical significance, an important step in valuing and preservation heritage resources. Traditional Cultural Properties, or locations associated with traditional beliefs or religious ceremonies, or economic or artistic practices central in maintaining a community's identity, may meet National Register criteria and be protected (Shrimpton, 1990). Recently, the viewshed or view plane of the ocean itself was interpreted as a type of historical "property" (Fig. 3). Precedence was set in the review of the proposed Cape Wind (offshore turbine wind farm) energy project in Nantucket Sound, Massachusetts (MMS, 2010). The Aquinnah and Mashpee Wampanoag Native Tribes claimed that the proposed wind turbines had the potential to degrade their essential view of the sunrise for religious ceremonies and also the view of the ocean central in other rituals. In an island state like Hawai'i, with an active and engaged host culture, it is only natural that federal agencies begin to address the issue of viewsheds of the ocean as they pertain to the cultural significance of specific areas of the marine environment.



*Fig. 3 The raised Hawaiian temple at Pu`ukoholāHeiau National Historic Site on the Island of Hawai`i, a place where cultural practices continue.
(H. Van Tilburg, NOAA ONMS)*

Objective 3: Management Tool for Engaging Native Hawaiian Communities in Identifying Significant Marine Areas

For objective 3, NOAA sanctuary staff will work with a Native Hawaiian Project Facilitator to develop a consultative working group. The group will include members of NOAA's Maritime Heritage Program, the Facilitator, the BOEM contracting office representative, and representatives from each of the main Hawaiian Islands (including island districts and/or counties). The working group will coordinate and facilitate the development of an analysis guide through a series of workshops, meetings, trainings, and consultations, as necessary, held during the project. This analysis guide or management tool will identify community heritage resource leaders, define common terminology, establish protocols for handling sensitive issues, establish reciprocal data-sharing for information validation, develop a list of topics that should be consistently asked for by project proponents, and create a template for Hawaiian communities to *collect and hold information that can be queried internally* with the ability to provide summary results to external parties. That is a major paradigm shift. The project proposes to grant communities greater ability to manage and control their own sensitive

cultural resource information rather than automatically require them to reveal sensitive information to government agencies. Information obtained from this project will provide baseline information for Native Hawaiian communities, helping to recognize and document marine areas of cultural importance. In short, the working group will develop a guidance tool that will help local communities navigate through cultural management discussions, particularly where those discussions involve sensitive resources and critical marine areas.

The working group will then test the analysis document tool by conducting independent case studies, identifying indigenous cultural landscapes within a pre-defined study area. At its most basic, cultural landscapes are specific places where combinations of human activity and natural forces have left a discernable mark or footprint on the environment (Jensen et al., 2011). The landscape studies will begin with a Traditional Cultural Property (TCP) and Traditional Ecological Knowledge (TEK) analysis of Native Hawaiian sites and resources within the selected areas (Fig. 4). These case studies will focus on areas that include coastal land-based, as well as offshore, areas of Native Hawaiian significance. Each case study will incorporate an area of one or more traditional Hawaiian *ahupua`a*, a land division developed by ruling chiefs of the islands in the 15th century which typically runs from the mountain ridge to the fringing reef, usually encompassing an entire watershed. The types of cultural resource information to be identified include traditional cultural properties in a maritime context, information related to traditional gathering, hunting, fishing and other subsistence and commerce activities, as well as those related to spiritual and ceremonial sites and activities. The working group, workshops, and case studies provide an analysis guidance tool that (hopefully) will assist local communities in conducting their own maritime cultural landscape assessments. Familiar heritage resources like shipwrecks do not automatically rise to the fore here, unless those types of resources are valued by the community itself. Significance, in this instance, is not defined by government mandates and enforced from above, but rather is more reflective of local values and generated at the grass-roots community level.



Fig. 4 The emergent walls of the Hawaiian stone fish traps and fish pond at Kaloko-Honokōhau National Historic Park. (H. Van Tilburg, NOAA ONMS)

Project Challenges and Questions

The ambitious and innovative approach represented by this maritime resource assessment project raises interesting challenges for Hawai'i's cultural preservation efforts. The project will not be easy to complete. Discussions regarding cultural resources are always lengthy and highly charged in Hawai'i, and this is a complicated project inclusive of a large amount of public input in a process that has no precedent among the islands. The fact that local communities, in Hawai'i and elsewhere, often feel disenfranchised by development interests and may perceive that their access to cultural resources deteriorates over time, engenders an understandable amount of wariness among the public. Those who are familiar with Hawai'i's history also know that the United States was clearly implicated in the illegal overthrow of the Hawaiian Islands in 1893, for which the presidential executive office issued a formal apology 100 years after the fact. They also know that the diseases that flourished in the wake of the Western discovery of Hawai'i in 1778, followed by subsequent social and economic upheaval, devastated the Hawaiian population, cultural practices and traditions, and very fabric of Hawaiian society. Cultural practices, identity, and cultural resources are therefore inseparable, and managing cultural resources is a complex and critical challenge in the islands.

For exactly these reasons, this project attempts what may be an improvement on the way that cultural resources have been assessed, managed, and ultimately protected in the United States thus far. If successful, local communities may be more empowered in resource management decisions that affect their islands. Because the underwater cultural heritage falls under the larger definition of cultural resources, and UCH does include a wide variety of historic and prehistoric properties, BOEM has therefore included project support for the Asia Pacific Conference on UCH 2014 and is one of the main APCONF conference sponsors. The project obviously has a contribution to make in understanding the underwater cultural heritage of Hawai'i, and just as obviously, parts of the project go way beyond the definition of "underwater cultural heritage". Or do they? Considering the intense level of cultural resource engagement locally in Hawai'i, and also considering the passage of the international UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage, one might ask "where is the intersection between these two efforts? Is there any? How much of what is considered "cultural resources" in Hawai'i is really included in the definition of UCH: "...all traces of human existence that lie or were lying underwater and have a cultural or historical character"? Clearly, shipwrecks are part of the UCH, whether or not they are popularly regarded as cultural resources in Hawai'i. And clearly, pre-Western contact lithic remains of stone fishponds and traps, along with canoe anchors, artifacts associated with coastal villages, and specific accumulations of ancient fishing tools, are part of the UCH resource base, under "objects of prehistoric character." But humans have been intentionally and inadvertently shaping their environment, both terrestrial and marine, for a very long time...much, much longer than the existence of any written definition of "traditional cultural properties" or criteria from the National Register of Historic Places (Fig. 5). This has led to the cultural landscape approach being used as the interpretive tool to understand cumulative impacts to the environment in a more holistic fashion. Can all these landscapes be UCH as well?



Fig. 5 The plantation-era ruins of the industrial harbor at Mahukona, once the entry port for the Kingdom of Hawai'i. The submerged steamship wreck from 1913 lies to the left. The whole environment, harbor, and wreck, make up the cultural landscape here.(H. Van Tilburg, NOAA ONMS)

One could pursue the merit of including or excluding a given resource as cultural heritage for a long time. That is something of a theoretical exercise. Perhaps it would be better, for our efforts in Hawai'i, to approach the question from the local perspective of the intended results. Definitions of landscapes and underwater cultural heritage and cultural resources all serve a similar purpose: they are intended to promote the understanding and preservation of resources that are valued for a number of reasons, including maintaining cultural identity. Is it worthwhile to understand the cultural resources and long-term impacts associated with traditional hunting, fishing, and gathering activities in the context of potential UCH? Is it worthwhile to think broadly about the definition of UCH, beyond the familiar shipwreck sites? The local answer is a pragmatic "yes," if by doing so, those "traces of human existence" that are valued by communities as significant may have a better chance at being understood and protected.

Acknowledgements

The authors would like to thank the Bureau of Ocean Energy and Management for making the project possible, and the dedicated staff of the National Marine Protected Area Center for providing the impetus for the development of the cultural landscape approach as it pertains to maritime heritage resources.

References

- Anon., 2012. *Hawaii Ocean Resources Management Plan, Public Review Draft*. Hawaii CZM Program State Office of Planning, Honolulu.
- DHM Planners Inc., 1989. *Hawaiian fishpond study: islands of Oahu, Molokai, and Hawaii* / prepared by DHM Planners, Inc. and Public Archaeology Section, Applied Research Group, Bernice Pauahi Bishop Museum, Honolulu.
- DHM Planners Inc., 1990. *Hawaiian fishpond study: islands of Hawaii, Maui, Lanai and Kauai* / prepared by DHM Inc., Public Archaeology Section, Applied Research Group, Bishop Museum and Moon, O'Connor, Tam & Yuen, Honolulu.
- Honolulu Star Bulletin* 1912-2001, Honolulu, Hawaii daily newspaper.
- Jensen, J. O., Mather, R. and Gray, J., 2011. Viewing the Future through the Lens of the Maritime Cultural Landscape. *Sanctuary Watch*, Fall: 2-3.
- MMS (U.S. Minerals Management Service), 2010. *Record of Decision: Cape Wind Energy Project, Horseshoe Shoal, Nantucket Sound*. U.S. Department of Interior, Washington DC.
- Pacific Commercial Advertiser* 1856-1921, (becomes *Honolulu Advertiser*), Honolulu Hawaii daily newspaper.
- Shrimpton, R. H., (Ed.), 1990. *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*. U.S. Department of the Interior, National Park Service, Washington DC.
- Thomas, M., 1982. *Hawaiian Interisland Vessels and Hawaiian Registered Vessels*. Seacoast Press, Santa Barbara.
- Thrum's Hawaiian Annual 1842-1932*. Star-Bulletin Press, Honolulu.
- UNESCO, 2012. *Training Manual for the UNESCO Foundation Course on the Protection and Management of Underwater Cultural Heritage in Asia and the Pacific*. UNESCO Bangkok Asia and Pacific Regional Bureau for Education, Bangkok.
- Van Tilburg, H., 2002. *U.S. Shipwrecks in Hawaiian Waters: an Inventory of Submerged Naval Properties*. Naval Historical Center, Washington DC.
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