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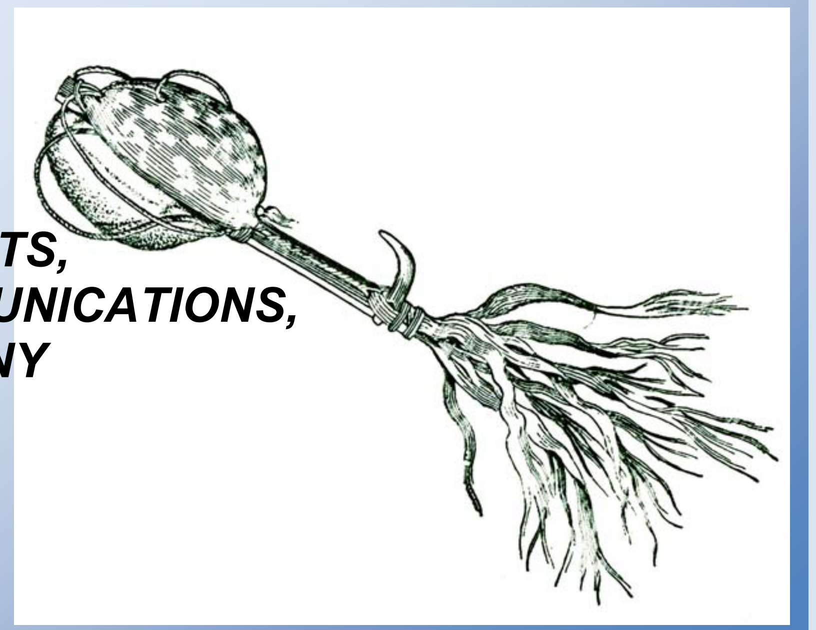
VOLUME I:
KA HANA LAWAIʻA A ME NĀ KOʻA O NA KAI ʻEWALU

A HISTORY OF FISHING PRACTICES AND MARINE FISHERIES OF THE HAWAIIAN ISLANDS

COMPILED FROM: NATIVE HAWAIIAN TRADITIONS, HISTORICAL ACCOUNTS, GOVERNMENT COMMUNICATIONS, KAMAʻĀINA TESTIMONY AND ETHNOGRAPHY



Lūheʻe (octopus fishing lure)
Sketch from Jordan and Evermann (1903:740)

Kumu Pono Associates LLC

Historical & Archival Documentary Research · Oral History Interview Studies · Researching and Preparing Studies from Hawaiian Language Documents · Māhele ʻĀina, Boundary Commission, & Land History Records · Integrated Cultural Resources Management Planning · Preservation & Interpretive Program Development

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COMPILED FROM: NATIVE HAWAIIAN TRADITIONS, HISTORICAL ACCOUNTS, GOVERNMENT COMMUNICATIONS, KAMA‘ĀINA TESTIMONY AND ETHNOGRAPHY

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EXECUTIVE SUMMARY

Ka Hana Lawaiʻa—A Cultural Context

In a traditional Hawaiian context, nature and culture are one and the same, there is no division between the two. The wealth and limitations of the land and ocean resources gave birth to, and shaped the Hawaiian world view. The *ʻāina* (land), *wai* (water), *kai* (ocean), and *lewa* (sky) were the foundation of life and the source of the spiritual relationship between people and their environs. Every aspect of life, whether in the sky, on land, or of the waters was believed to have been the physical body-forms assumed by the creative forces of nature, and the greater and lesser gods and goddesses of the Hawaiian people. Respect and care for nature, in turn meant that nature would care for the people. Thus, Hawaiian culture, for the most part, evolved in a healthy relationship with the nature around it, and until the arrival of foreigners on Hawaiian shores, the health and well-being of the people was reflected in the health of nature around them.

Today, whether looking to the sea and fisheries, or to the flat lands and mountains, or to the condition of the people, it is all too easy to find signs of stress and diminishing health of Hawaiian nature and the native culture. As will be seen in this study, this is clearly evident in the condition of Hawaiian fisheries, which traditionally extended from the *kuahiwi–kualono* (mountains), to the *kai pōpolohua a Kāne* (the deep purple-blue seas of the god Kāne).

One example of a native Hawaiian's sentiments, describing the healthy relationship of nature, spirit, and the fisher-people was shared in the native language newspaper, *Ka Hae Hawaii*, in 1861. Portions of a letter submitted to the paper by W.E. Kealakaʻi (1861), are excerpted and translated below:

He Mooolelo no ka Lawaia ana.

Ua akamai kekahi poe kanaka Hawaii i ka lawaia, no ia mea, ua kapa ia lakou, he poe lawaia. O ka makau kekahi mea e lawaia ai. O ka upena kekahi, a o ka hinai kekahi.

Penei ka lawaia ana me ka makau. E hilo mua ke kanaka lawaia i ke aho. Ke ano o ke aho e hilo ai, he aho kaa-kolu, ekolu maawe o ia aho, he olona. Ekolu kaau anana o kekahi aho, eha kaau anana ka loa o kekahi aho. Alaila, hana i ka makau, a lako ke kanaka i keia mau mea…

Pule aku la ua kanaka nei i ka pule lawaia. Penei ka pule ana i ka pule ia:

E ala e ka Ulua,
E ala e ke Kahala,
E ala e ka Ulaula,
E ala e ka hana nui
E ala, eia mai ka Hee,
He maunu palupalu,
He ono!
A i ai ia oe e ke Kahala,
Ai no moni,
Moni no a ka opu.
E Ku e—

A Story of Fishing

Some of the people of Hawaii were very knowledgeable about fishing, and they were called fisher-people. The hook was one thing used in fishing. The net was another, and the basket trap, another.

This is how fishing was done with a hook. The cordage was first twined by the fisherman. The kind of cordage was a three-ply twine, a cord of three strands of *olona*. The line might be 720 feet long, or perhaps 960 feet long. Then the hooks were made and the fisherman was supplied with these things…

The man then offered a fisherman's prayer. This is the prayer that is prayed:

Arise o *Ulua*,
Arise o *Kahala*,
Arise o *Ulaula*,
Arise to the great task,
Arise, here is the *Hee*,
A soft bait,
Delicious!
That you may eat o *Kahala*,
Eat and swallow it,
Swallow it to your stomach.
O Ku—

Kuu akua i ka moana nei la — e, *A i ai ka ia i ka maunu a kaua,* *Paa ae a paa i ka hoau,* *ke aho a kaua,* *Ea, e Ku kuu akua i ka moana nei la — e.* *Amama oe e Ku a ka haliu.*	My god here in the sea—, Let the fish take the bait of ours, Hold fast and secure in the currents, the line of ours. Say Ku, my god here in the sea—. The prayer is spoken to you o Ku who hears.
Ko nuku i ka ia halapa i ka i-kuwai la—	Your *nuku* line of hooks are the gathering place of the fish—
E Ku— e, paa ia i paa ka ia a kaua!	Say Ku—hold fast, that the fish of ours will be secured!

W.E. Kealakai. Honolulu, Oahu
Ka Hae Hawaii, *Mei* 15, 1861
[Maly, translator]

It is staggering today, to contemplate that in ancient times, nearly every member of the Hawaiian population regularly participated in some form of fishing—and population figures in the islands, range from some 400,000 to 1,000,000 people in 1778. Native lore and early historical accounts tell us that through those traditional generations, the fisheries were resilient and healthy. This being a reflection on the relationship between people and nature, and the management system that evolved through ancient times. Today, only a very small percentage of the population of the Hawaiian Islands fishes, yet, as the methods of fishing and management systems have evolved away from the traditional system, the fisheries themselves have diminished at alarming rates.

Undertaking the Present Study

At the request of Scott R. Atkinson, Director of Marine and Coastal Conservation, of The Nature Conservancy, and in partnership with the Department of Land and Natural Resources-Division of Aquatic Resources, the University of Hawai‘i-Hawai‘i Natural Heritage Program, and various community organizations, *Kumu Pono Associates LLC* (Maly and Maly) conducted detailed archival-historical documentary research, and oral history interviews to identify and document, traditional knowledge of Hawaiian fisheries—including those extending from mountain streams to the beaches, estuaries and near shore, and extending out to the deep sea—and changes in the nature of fishery resources of the Hawaiian Islands as recorded in both written and oral historical descriptions. The historical documentary research cited in this study was compiled from documentary research conducted by Kepā Maly over the last 30 years, and from additional research with specific emphasis on fisheries, conducted between August 2002 to May 2003.

The archival-historical research and oral history interviews conducted for this study were performed in a manner consistent with Federal and State laws and guidelines for historical documentary and cultural assessment studies. A primary objective of the present study was to research and report on documentation that would help readers better understand native Hawaiian customs and practices, and historic events associated with native land and fishery resource stewardship and use, and the relationship of the wide range of fishery resources in Hawaiian culture—in both traditional and historical contexts. The study also sought to identify the wide range of fishery resources— where species occur (occurred), what was caught where, and in what quantities.

In preparing the archival-historical documentary component of this study, the authors reviewed both published and manuscript references recorded in Hawaiian and English languages. In an effort to further our understanding of the traditional and customary practices and cultural-historical values associated with Hawaiian fisheries, research was conducted in several areas which have not received much exposure in past studies. Thus, this study provides readers with access to many old accounts that have not been easily available to most people, and in some cases, narratives not previously seen in English translations.

Historical Documentary Research

References cited in the study include, but are not limited to — land use records, including Hawaiian Land Commission Award (L.C.A.) records from the *Māhele ʻĀina* (Land Division) of 1848, and *kamaʻāina* testimonies given before the Boundary Commission (ca. 1865-1910); and historical texts authored or compiled by a wide range of native and foreign writers. Importantly, the study also includes excerpts from a number of native accounts published in Hawaiian language newspapers (compiled and translated from Hawaiian to English, by Maly), which provide first hand descriptions of fisheries and practices associated with procurement of fishery resources. This information is generally cited within categories by chronological order of occurrence, and the date of publication.

The archival-historical and cartographic resources were located in the collections of the Hawaiʻi State Archives, Land Division, Survey Division, and Bureau of Conveyances; the Bishop Museum Archives; Hawaiian Historical Society; University of Hawaiʻi-Hilo Moʻokini Library; private family collections; and in the collection of *Kumu Pono Associates LLC*.

Oral History Interviews

The oral history interviews cited in this study (see *Volume II*), fall under two classes: (1) those conducted between October 2002 to April 2003, and are directly related to aspects of the present study; and (2) those conducted prior to undertaking this study, or as a part of other research (some in later 2003), that share important *kamaʻāina* knowledge of Hawaiian traditions, values, and use of fisheries. All of the interviews cited, were conducted by Kepā Maly, most with elder *kamaʻāina* ranging in age from their late 60s to late 90s. The interviews document personal knowledge of fisheries of all the major Hawaiian Islands (Hawaiʻi to Niʻihau), and also touch on the fisheries of Nihoa and the Northwestern Hawaiian Islands of the archipelago.

The interview format followed a standard approach that: (1) identified the interviewee and how he or she came to know about the lands and fisheries of the area(s) described by the interviewee; (2) identified the time and/or place of specific events being described; (3) the recorded interviews were transcribed and returned to interviewees for review, correction, and release; and (4) copies of the full final study (*Volumes I & II*) will be provided to each interviewee or their families.

Detailed narratives from more than 125 individuals, participating in more than 132 interviews between 1975 to 2003, are quoted in *Volume II* of this study. Their recollections date from ca. 1905 to the present, and in their words, we find deep cultural attachment, and rich knowledge of the *kai lawaiʻa* (fisheries) and *ʻāina i pūlama ʻia* (cherished lands) of Hawaiʻi Nei. Readers of *Volumes I & II* will also find remarkable continuity and time depth of knowledge as recorded in the historical-archival literature (*Volume I*) and as passed down in the daily lives and practices of our elders (*Volume II*).

Study Organization and Documentary Resources

In order to help readers access important documentation—representing various periods in history—and specific classes of documentation, *Volume I* of the study is divided into several primary categories. In many cases, lengthy, verbatim excerpts of important original documentation has been made—with great appreciation and acknowledgement to those who cared enough to compile important narratives and observations that would have otherwise been lost. Those materials, brought into one resource document, are meant to serve as tools for educators, resource managers, *kamaʻāina* practitioners and others, by bringing the wide range of narratives—many of which are very difficult to access—into one collection.

It will be noted that the broad range of narratives documented in this volume describe the diversity, depth, distance, and range of fisheries, known to the native Hawaiians. Hawaiian traditions and practices as described in native accounts and early historical narratives, also document a strong ethic of stewardship and responsibility for the aquatic resources. We still find today, that many of the early practices and beliefs are still highly valued by the *kūpuna* and *kamaʻāina* who shared their histories in interviews cited in *Volume II*.

Moʻolelo (Native Traditions and Historical Accounts)

The first part of the study provides readers with detailed *moʻolelo*, documenting ancient Hawaiian knowledge, beliefs, customs, use, and management of fisheries and aquatic resources. While a wide collection of *moʻolelo*, spanning the length of the Hawaiian Archipelago are cited, not every tradition describing fishing, marine resources, and the native customs associated with them has been included. The selected traditions include detailed descriptions of religious beliefs and cultural practices associated with aquatic resources, and the development of Hawaiian fishing techniques. The narratives also provide specific documentation pertaining to the lands and waters in which such practices occurred and where resources were found. The accounts cited, focus on several of the best known native writers (bringing their instruction into one collection), and also on many other important narratives which have had little review since their dates of original publication in Hawaiian.

Many of the *moʻolelo* include specific references to cultural sites, such as *koʻa* (on shore and in ocean fishing shrines and station markers), resources procurement sites (both on land and in the water), and the traditional and customary laws governing care for, and use of the wide range of resources from the uplands to the ocean depths. A number of the accounts have been excerpted from larger traditions which are also associated with regional localities, and events of “national” significance in Hawaiian history. Of importance to the body of work documenting Hawaiian customs and practices associated with *ka hana lawaiʻa* (the work of the fisher-people), is that the narratives include references from all of the major Hawaiian Islands — Hawaiʻi, Maui, Kahoʻolawe, Lānaʻi, Molokaʻi, Oʻahu, Kauaʻi, Niʻihau, and the smaller islands and *nā moku manamana* (pinnacled and atoll islands) to the northwest.

The *moʻolelo* tell readers about the people who worked the land, water, and marine resources, and who, through a system of religious-based fisheries management protocols, were sustained by the wealth—and who lived within the limitations—of the natural landscape from sea to mountains. Such traditions document the cultural-historical importance of fisheries and land in the lives of the native Hawaiians, and are the foundation of the on-going cultural attachment expressed by many Hawaiians and *kamaʻāina* fisher-people in the present day (see *Volume II*).

Traditional and Historical Rights to Ocean Resources and Private Property Rights

In pre-western contact Hawaiʻi, all *ʻāina* (land), *kai lawaiʻa* (fisheries) and natural resources extending from the mountain tops to the depths of the ocean were held in “trust” by the high chiefs (*mōʻī*, *aliʻi ʻai moku*, or *aliʻi ʻai ahupuaʻa*). The right to use of lands, fisheries, and the resources therein was given to the *hoaʻāina* (native tenants) at the prerogative of the *aliʻi* and their representatives or land agents (often referred to as *konohiki* or *haku ʻāina*). Following a strict code of conduct, which was based on ceremonial and ritual observances, the people of the land were generally able to collect all of the natural resources, including fish—and other marine and aquatic resources—for their own sustenance, and with which to pay tribute to the class of chiefs and priests, who oversaw them.

Shortly after the arrival of foreigners in the islands, the western concept pf property rights began to infiltrate the Hawaiian system. While Kamehameha I, who secured rule over all of the islands, granted perpetual interest in select lands and fisheries to some foreign residents, Kamehameha, and his chiefs under him generally remained in control of all resources. Following the death of Kamehameha I in 1819, and the arrival of the Calvinist missionaries in 1820, the concepts of property rights began to evolve under Kamehameha II and his younger brother, Kauikeaouli (Kamehameha III), who ruled Hawaiʻi through the years in which private property rights, including those of fisheries, were developed and codified.

Interestingly, it was in the area of fisheries—including the rights of the common people to catch fish, and the rights of the *aliʻi* and *konohiki* classes to select a choice fish for their private use—that what might be termed “fee-simple property rights” made its early headway in the native system. Kamehameha III formally defined the ancient fishing rights and practices of the Hawaiian people in

the Constitution and Laws of June 7, 1839, and reconfirmed them on November 9, 1840 (Hawaiian Laws, 1842; Hawaiian Laws compiled from between the years of 1833 to 1842).

By the Law respecting fisheries, Kamehameha III distributed the fishing grounds and resources between himself, the chiefs and the people of the land. The law granted fisheries from near shore, to those of the deep ocean beyond the sight of land to the common people in general. He also specifically, noted that fisheries on coral reefs fronting various lands were for the landlords (*konohiki*) and the people who lived on their given lands (*ahupuaʻa*) under the *konohiki*.

The most important source of documentation that describes native Hawaiian residency and land use practices—identifying specific residents, types of land use, fishery and fishing rights, crops cultivated, and features on the landscape—is found in the records of the *Māhele ʻĀina*. The *Māhele ʻĀina* of 1848 gave the *hoaʻāina* (native tenants) an opportunity to acquire fee-simple property interest (*kuleana*) on land which they lived and actively cultivated, but the process required them to provide personal testimonies regarding their residency and land use practices. The lands awarded to the *hoaʻāina* became known as "*Kuleana* Lands." All of the claims and awards (the Land Commission Awards or L.C.A.) were numbered, and the L.C.A. numbers remain in use today to identify the original owners of lands in Hawaiʻi.

A careful review of thousands of the original Hawaiian claims recorded during the *Māhele ʻĀina* for all islands revealed that at least 1,233 claims for fishery resources were recorded in the Register and Testimony Volumes of the Land Commission. The types of uses and knowledge of resources found in the claims describes a wide range of aquatic and marine resources, including—

> *ʻĀina paʻakai, ʻālialia paʻakai, hāhā paʻakai, kāheka paʻakai, loʻi paʻakai, loko paʻakai* (salt making beds - ponds); *kahawai* (fresh water stream fisheries); *muliwai* (estuarine pond systems); *puʻuone* (sand dune-banked ponds); *loko ia kuapā* (walled fish ponds); *loko kalo* (ponds in which both fish and taro were raised); *kiʻo pua* (small holding ponds for fingerlings); *kāheka* (anchialine ponds); *koʻa* and *lua* (fishing spots and holes relatively near shore); *imu, umu* and *unu* (stone mounds – fish traps); *kahe*, *paepae* and *hā* (wooden or lattice traps – generally in fresh water streams); and *kai* (ocean fisheries).

In addition to descriptions of methods and locations where resources were found, rights to fish and other aquatic resources were claimed. The named fish included—

> *āhole, āholehole, akule, ʻanae, awa, heʻe, honu, kāhala, kala, kumu, limu, limu kala, manō, ʻōhua, ʻōʻio, ʻoʻopu, ōpae, ʻōpelu, ʻōpihi, paʻakai, pua, uhu, ula, ulua, and weke*.
>
> It is perhaps most interesting that *ʻoʻopu* from fresh water sources, were the most frequently named fish taken on the islands of Hawaiʻi, Kauaʻi, Maui, and Oʻahu.

Another important facet of the fisheries record, was the documentation provided by the *Aliʻi* and *Konohiki* awardees of *ahupuaʻa* and other land units with ocean fisheries. They were required to issue public notice identifying the *iʻa hoʻomalu* (protected or taboo'd fish) of their choice—generally one each per land.

While occurring more than 150 years ago, the memory of "*Konohiki*" fish remains fresh in the minds of *kūpuna* and elder *kamaʻāina* who have participated in oral history interviews with the author over the last fifteen years. There are numerous accounts of choice fish such as *ʻamaʻama, ʻanae, heʻe, akule*, and *ʻōpelu* being carefully guarded up through the 1940s, and in a few instances even later. It has been reported that sometimes, shots were fired overhead of those who tried to take fish out of given fisheries without permission.

As might be expected, the transition in Hawaiian history from a time when fisheries were managed by chiefs and their subordinates—and also often associated with ritual observances—to one where fee-

simple interest and broader public rights existed, was filled with difficulties for the native tenants. In the years following the *Māhele*, hundreds of communications between *hoa'āina* (native tenants), *ali'i* and *konohiki* land owners, and the government document the wide range of issues which arose.

In 1862, a law was enacted by which a Commission of Boundaries (the Boundary Commission) was established in the Kingdom. The goal Commission being to legally set the boundaries of all the *ahupua'a* that had been awarded as private properties in the *Māhele 'Āina*. R.A. Lyman, Commissioner for the Island of Hawai'i between the 1860s to early 1900s, noted that a commissioner was to "determine certain geographical lines, that is, he is to ascertain what, in fact, were the ancient boundaries of lands, which have been awarded by name only" (Lyman, 1900 Volume D No. 5:357). Furthermore, the Commissioners were, whenever possible, to determine and "assign whatever was included in such land according to the boundaries as known and used from ancient times" (Lyman 1897 – Volume D No. 5:101; cf. Supreme Court, 4th Hawaiian Reports). Under this premise, the commissioners were to address not only land matters, but also those of private fisheries, and a wide range of resources and practices as known from ancient times.

In order to accomplish their mandate, the commissioners were to identify knowledgeable native residents and *kama'āina* from whom detailed testimonies and descriptions of the lands and rights could be recorded. From this process evolved a rich collection (thousands of pages) of first hand accounts describing many facets of—land use; residency; beliefs and customs; changes in the landscape in the period from ca. 1790 to 1890; and descriptions of fisheries of the Hawaiian Islands. In 1874 the Commissioners of Boundaries were authorized to certify the boundaries for lands brought before them (W.D. Alexander in Thrum 1891:117-118).

The primary informants for the boundary descriptions were old native residents of the *ahupua'a* for which boundaries were to be certified, or of neighboring lands. Nearly all of the informants stated that they were either born on one of the lands being described, or that they had lived there since their youth. All of the witnesses had learned of the boundaries either from their own elders, or from others who had lived upon the land in the preceding generations. And nearly all native witnesses described the landscape by the nature of the terrain, presence of resources, land use, and features which were of significance to the people of the land (*kama'āina*).

Most of the testimonies were taken between 1873 to 1893, though some were recorded in the early 1860s. The oldest informants were born around 1785, by association with events described at the time of their birth, and the youngest around 1830.

Unfortunately, no testimonies were taken for the islands of Kaho'olawe and Ni'ihau. This is because by the time of the Commission proceedings, Ni'ihau had been sold almost in its entirety to one owner and its boundaries were the ocean around it; and Kaho'olawe was a part of the Government land inventory, thus not of the class of lands eligible for or requiring hearings before the Commission.

A thorough review of the thousands of pages from the Commission proceedings, was conducted as a part of the present study. Excerpts from nearly every testimony, notes of survey, or decision on boundaries, which addresses some form of marine and aquatic resources, or practices associated with the management of, or procurement of such resources is cited. Every effort was made to identify— (1) types of fish; (2) locations of fisheries (from deep sea to near-shore and mountain streams); (3) references to fishponds; and (4) practices associated with the fisheries of the various lands cited. In some cases the narratives were translated by Maly from Hawaiian, and are given in English here, for the first time.

It will be noted that for far too many locations around the main Hawaiian Islands, commissioners did not regularly record detailed native testimonies as a part of the proceedings. In even more instances, the important goal of documenting how the lands were "*known and used from ancient times*" was not recorded. Thus, no fishery information was recorded in the formal proceedings for Kaho'olawe, Lāna'i and Ni'ihau; this is also the case in some districts on the remaining islands.

In the case of Lāhainā and other districts on the Island of Maui, and in some locations on other islands, the proceedings were undertaken following 1900. As a result, the "rights" and descriptions of fisheries were not addressed. This trend became pronounced shortly after the overthrow of the Hawaiian Monarchy in 1893. With the subsequent "Annexation" of the Hawaiian Islands to the United States in 1898, and their designation as a "Territory" of the same in 1900, *the private and piscary rights to fisheries—and ultimately the responsibility for them—was determined no longer to be a private matter, but one of public right and interest*. Descriptions of the decline of Hawaiian fisheries from the early 1900s to the present, as given by *kūpuna* and elder *kamaʻāina*—see oral history interviews in this study—seem to reveal a flaw in such an approach

The following notes summarize some of the key documentation cited in the testimonies recorded before the Boundary Commission:

- In the period of Hawaiian governance, fishery boundaries were defined; places named describing the kinds of fishery resources an area was noted for; limitations on the kinds of fish, and who could take them were prescribed; rituals were observed; and choice fish held under *kapu* (restrictions).
- Among those fish selected by the people were — *ʻAhi, Akule, ʻAmaʻama, Heʻe, Malolo, Manō, ʻOʻopu* (from the mountains), *ʻŌpelu, Uhu*, and *Ulua*.
- Fish were caught by several methods — *Ō* (spearing); *Upena* and *Kuʻuna* (setting nets); *makau* and *pā* (hooks and lures); *hāhā* (trapping in one's hand); and in *loko* (ponds), both natural and manmade.
- Some 160 *loko, loko iʻa, kuapā* and *puʻu one* (walled and dune-banked fish ponds); and ponds in which fish and taro (*loko iʻa kalo*) were grown together, are named or identified on the islands of Hawaiʻi, Maui, Molokaʻi (Molokai), Oʻ*ahu* and Kauaʻi. The presence and use of *mākāhā* (sluice gates) is also noted.
- The witnesses also reference practices of canoe making; preparation of *olona* (used for netting and fishing line); collection of human bone for hooks; making *paʻakai* (salt); and the exchange of fish for other goods.

Transitions in Hawaiian Governance and Management of Fisheries

Among the most significant collections of documentation pertaining to the diverse nature of Hawaiian fisheries—including study of traditional and early historical practices associated with them; and changes in the quality of marine resources, and the methods by which they were collected—are those that were undertaken in the period of Hawaiian history marked by it's greatest turmoil and changes. The preceding sections of the study have covered Hawaiian traditions, practices, knowledge and management of fishery resources from antiquity to the late 1800s. This system was radically altered in 1893, when the Hawaiian Monarchy was overthrown by foreign residents and American forces. Subsequently, the leaders of the parties responsible for the overthrow, made a steady move towards annexation of the Hawaiian Islands by the United States, which occurred in 1898. Then in 1900, the Hawaiian Islands became a "Territory" of the United States, and the resulting "Organic Act" set in place the legal parameters for freeing up the fisheries of Hawaiʻi.

As a part of that process, detailed studies of the Hawaiian fisheries were undertaken between 1898 to 1905. The reports provide readers with detailed descriptions of the types, quantity and locality of catch; who was fishing; how the catch was distributed; changes in the fisheries; and recommendations regarding long-term management of the fisheries. In regards to the management context of the reports, readers here will observe that the recommendations are generally based on the *commercial economic values* of the fishery. It is perhaps this point that has led to the continual decline of the quality and health of the Hawaiian fisheries. *In the traditional and early historical Hawaiian system, collection of fishes and other aquatic resources was undertaken on an as-needed basis, supported by a broad range of conservation-stewardship practices, and further governed by strict kapu and kānāwai*.

While an economist may argue that fish and other aquatic resources were of "economic" value in traditional Hawaiian culture, they were assets of both tangible and intangible value. The resources were collected and consumed within extended family systems, and given in exchange (*kuapo*) for other goods of the land. What evolved in Hawai'i under western influence through the 1800s, and matured following the overthrow of the Hawaiian Monarchy in 1893, was the development of a "commercial" fishing industry, involving significant trading centers and a market economy. The industry and growing number of urban consumers had little interest in the myriad traditional values—such as spiritual, cultural, familial, and ecological—of fish and aquatic resources. This trend has continued through the present-day, and fostered the decline in health and well-being of the broad range and diversity of Hawaiian fisheries.

In the transition from a cultural subsistence-based system to the commercial economy, fish and other harvestable marine organisms went from being perceived and valued in a complex way that was embedded in nature and culture—one fostered through long-term stewardship—to fish as primarily being a commodity or simply food items. In the present-day, the broad range of aquatic resources are no longer perceived as organisms irrevocably connected to the complex web of life, spanning water, land, air and culture.

It has been the observation of nearly every *kūpuna* and elder *kama'āina* interviewed by Maly over the past 30 years, that when Hawaiian fisheries (from mountain streams to deep sea) were managed under the old system—including the *kapu*, periods in which fisheries were rested, private ownership of fisheries, and at times severe penalties for infractions on the *kapu* and *kānāwai*—that the fisheries were capable of sustaining hundreds of thousands of residents and fisher-people. The foundational component of the native relationship with fisheries and harvesting of resources, was that the *kānaka* and their environment shared a familial and religious relationship. Each person bore responsibility for his or her actions. This concept is personalized and expressed in Hawaiian life as "*Mālama i ka 'āina, a mālama ka 'āina iā 'oe!*" (Care for the land, and the land will care for you!). The saying is also expressed as "*Mālama i ke kai, a mālama ke kai iā 'oe!*" (Care for the ocean, and the ocean will care for you!) (see interviews in *Volume II*).

Kama'āina Observations (ca. 1905 to 2003): Contributors to the Oral Historical Record (Volume II)

Perhaps the most fragile and precious source of information available to us, and the one most often overlooked (particularly in academic settings) are our elders — *kūpuna,* those who stand at the source of knowledge (life's experiences), and *kama'āina* who are knowledgeable about the tangible and intangible facets of the *'āina, kai, wai, lewa,* and the resources and history therein. For the most part, the paper trail—the archival-documentary records—can always be located and reviewed, but the voices of our elders, those who have lived through the histories that so many of us seek to understand, are silenced with their passing.

Over the last thirty years, Maly has interviewed hundreds of *kūpuna* and elder *kama'āina* across the Hawaiian Islands—all of whom have shared recollections and descriptions of Hawaiian fisheries, and the customs and practices associated with them. These *kūpuna* and elder *kama'āina* tell very much the same story as that described in the wide range of traditional and historical narratives cited in the preceding sections of this volume. Among those interviewed, as a part of the present study, or as a part of other research and historical documentation programs are the following individuals:

On the Island of Hawai'i (35):
Howard Ackerman, William A. and Lani Akau, Valentine K. Ako, Samuel Waha Pohaku Grace, Hannah Waha Pōhaku Grace Kawa'auhau-Acia (and family), Lily Nāmakaokai'a Ha'ani'o-Kong, John Hale, the late, Louis Hao Sr., Edward Nāmakani Ka'anāa'nā, Geo. Kinoulu Kahananui (and family), the late Marjorie Kaholo-Ka'ilianu, Moana Kapule-Kahele, Katie Kalā-Andrade, Eugene "Gino Kaupiko, Gabriel Kealoha, the late David K. Keākealani, Caroline Kiniha'a Keākealani Pereira, Fred Kaimalino Leslie, Weston Leslie,

Aka M. Mahi, the late Joseph Puʻipuʻi Makaʻai, Kahu John Kumukāhi Makuakāne (and family), Maile Keohohou-Mitchell, William Kalikolehua and Nāmahana Pānui, William "Billy" K. J. Paris, Peter Keikuaana Park, Walter Keliʻiokekai Paulo, Rose Pilipi-Maeda, Mary Kawena Pukui, Robert Kaʻiwa Punihaole (and family), Mary Tom-Ahuna (and family), C. Kapua Wall-Heuer, and Amoi Sam Choy-Yee (and family).

On the Island of Kauaʻi (14):
Valentine K. Ako, Charles Kininani Chu, Agnes Leinani Kam Lun Chung, Wayne and Keikilani (Haumea) Harada, Thomas and Annie (Tai Hook) Hashimoto, Voilet Hashimoto-Goto, Greg Kan Sing Ho, Stanley Ho, Melapa Makanui-Corr, Richard Corr (and family), Leo A. Ohai and Mary "Lychee" Kamakakaʻōnohiʻulaokalā Tai Hook-Haumea.

On the Island of Lānaʻi (4):
Henry Kau Aki, Samuel and Solomon Kaopuiki, and the late, Apelehama Kauila.

On the Island of Maui (and neighboring islands) (17):
Helen (Helena) Akiona-Nākānelua, Stephen Cabral, Samuel Ponopake Chang, Stanley Chock, Isaac and Tammy (Neizman) Harp, the late, James Keolaokalani Hueu, Moon Keahi, Pohaku Miki and Leimamo Wahihākō-Lee, Robert Luʻuwai, Mina Marciel-Atai, F. Harrison and Teresa (Smith) Neizman, Gilbert Neizman, Joseph C. Rosa, Jr. (and family), and James Tanaka.

On the Island of Molokaʻi (8):
Scott Kaʻuhanehonokawailani Adams (and family), John Dudoit, Jr., the late, Lawrence Joao, Sr., William H. Kalipi, Sr., Daniel A. Kekahuna, Wayde Lee, and Mac (Kelson) Poepoe.

The Island of Niʻihau and the Northwestern Hawaiian Islands (7):
Louis "Buzzy Agard, Valentine K. Ako, Issac Harp, Eddie Nāmakani Kaʻanāʻanā, Kāwika Kapahulehua, Leo A. Ohai, and Walter Keliʻiokekai Paulo.

On the Island of Oʻahu (35):
Joseph "Tarzan" and Gladys (Pualoa) Ahuna, William J. ʻAilā, Jr., the late, Edith Kenoiʻāina Auld, Toni Auld-Yardley, Charles Keonaona Bailey, Aaron Chaney, the late Margaret Chiyoko Date, George and Mary (Furtado) Davis, Joseph "Kepa" Haia, Joseph and Niki (Ahuna) Hines, the late, Ruby Kekauoha-Enos, the late, Isabella Kalehuamakanoe Kekauoha-Lin Kee, Roland Maʻiola "Ahi" Logan, Martha Maleka Mahiʻai-Pukahi, Lucy Kaʻiʻo-Marasco, the late, Agnes McCabe-Hipa, William Kanahele, Agnes Kanahele-Lua, Annie Kanahele-Tauʻa, William Kulia Lemn, Sr., the late, Anita Kahanupāʻoa Lono-Gouveia, Leo A. Ohai, the late, Viola Kēhau Kekuku ʻĀpuakēhau Peterson-Kawahigashi, Walter Kaiapa Pomroy, Charles K. Reiny, the late, Arthur Hyde Rice Jr., Albert Hollis Silva, Lucia White-Whitmarsh, Jack Nāpuaokalauokalani Williams (and family), Henry H. Wong, Walter Kong Wong Sr., and the late, Masato Yamada.

Interestingly, nearly all of the interviewees, particularly those participating in interviews after 1990, commented on changes they had observed in the quality of the fisheries, and the declining abundance of fish—noting that there were significant declines in almost all areas of the fisheries, from streams, to near-shore, and the deep sea. The interviewees attribute the changes to many factors, among the most notable are:

- Loss of the old Hawaiian system of *konohiki* fisheries; adherence to seasons of *kapu* fisheries (managed by *ahupuaʻa* and island regions); and lack of respect for *ahupuaʻa* management systems and tenant rights.

- Too many people do not respect the ocean and land—they over harvest fish and other aquatic resources, with no thought of tomorrow or future generations. It was observed that taking more than one needs, only to freeze it for later, removes viable breeding stock from the fisheries, and as a result, leads to depletion of the resources.
- Sites traditionally visited by families, having been developed and/or traditional accesses blocked.
- Changes in the environment—near shore fisheries destroyed by declining water flow and increasing pollution.
- To many people fish in one area, and to few people take the time to *hānai* and *mālama* the *koʻa*; they don't let the *koʻa* rest, and only think of taking, and not giving back.
- "Hawaiʻi cannot feed the world." The focus on economic fishing, only to export Hawaiian fish to foreign markets is damaging to the resources, and makes it economically inaccessible to many participants in the local market.
- Use of modern technology—including depth gauges, GPS, and fish aggregation devises to maximize harvests—makes it too easy for fishermen to locate fish. Fishermen no longer need to have in-depth knowledge of the ocean and habits of fish, as was necessary in earlier times.
- Failure of the state system to enforce existing laws, rules and/or regulations.
- The present centralized state system of management is out of touch with the needs of the neighbor islands, and does not take into account regional variations and seasons associated with fisheries and aquatic resources on the various islands.

Interviewee recommendations included, but are not limited to:

- Return to a system patterned after the old Hawaiian *ahupuaʻa*, *kapu* and *konohiki* management practices.
- Enforce existing laws and *kapu*; ensure that penalties for infractions are paid.
- Programs established to manage fisheries similar to the Waikīkī system—one year harvest, one year rest—should be used throughout the islands; though limits on take need to be established and enforced.
- Decentralize the fisheries management system, giving island and regional councils (made up of native Hawaiians and other *kamaʻāina*), authority to determine appropriate *kapu* seasons and harvests in a timely, and as needed basis.
- Establish a fee/license system to help support fisheries management programs.
- Take only what is needed, leaving the rest for tomorrow and the future.
- Ensure that the land and ocean resources necessary to maintain the health of the wide range of Hawaiian fisheries for present and future generations are protected and managed in a way that is beneficial to all the people of Hawaiʻi. This may mean controlling development and use of fresh water resources, and controlling what, when, who, and how, marine and aquatic resources are used.
- Protect the Northwestern Hawaiian Islands from commercial fishing interests. This is important to both the protection of native species (the large breeding stock), and the well-being of the larger Hawaiian Archipelago fisheries.

In closing, we observe that one theme associated with fishing is consistent in oral history interviews with elder native Hawaiian fisher-people, and is also shared by other elder *kamaʻāina* who learned fishing in the "Hawaiian" way. It is that fishing and collection of marine resources requires caring for, and giving back, as a part of the taking. This manner of cultural subsistence may be summarized as "***Hānai a ʻai***" (To care for and eat from). In the Hawaiian cultural context, subsistence was the traditional way of life, reflected in the relationship shared between nature and the *kānaka* (people). Subsistence is multi-faceted, including: intimate knowledge of the natural resources (from mountains to ocean depths); spiritual attributes; responsibility; and a physical relationship.

"Aʻohe pau ka ʻike i ka hālau hoʻokāhi!"

(Not all knowledge is found in one school!)

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INTRODUCTION

Background

At the request of Scott R. Atkinson, Director of Marine and Coastal Conservation, of The Nature Conservancy, and in partnership with the Department of Land and Natural Resources-Division of Aquatic Resources, the University of Hawai‘i-Hawai‘i Natural Heritage Program, and various community organizations, *Kumu Pono Associates LLC* conducted detailed archival-historical documentary research, and oral history interviews to identify and document, traditional knowledge of Hawaiian fisheries—including those extending from mountain streams to the beaches, estuaries and near shore, and extending out to the deep sea—and changes in the nature of fishery resources of the Hawaiian Islands (*Figure 1*) as recorded in both written and oral historical descriptions. The historical documentary research cited herein was compiled from materials collected by Maly over the last 30 years, and from additional research with specific emphasis on fisheries, conducted between August 2002 to March 2003.

Approach to Conducting the Study

The archival-historical research and oral history interviews conducted for this study were performed in a manner consistent with Federal and State laws and guidelines for cultural assessment studies. Among the pertinent laws and guidelines are the National Historic Preservation Act (NHPA) of 1966, as amended in 1992 (36 CFR Part 800); the Advisory Council on Historic Preservation’s “Guidelines for Consideration of Traditional Cultural Values in Historic Preservation Review” (ACHP 1985); National Register Bulletin 38, “Guidelines for Evaluating and Documenting Traditional Cultural Properties” (Parker and King 1990); the Hawai‘i State Historic Preservation Statue (Chapter 6E), which affords protection to historic sites, including traditional cultural properties of on-going cultural significance; the criteria, standards, and guidelines currently utilized by the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD) for the evaluation and documentation of cultural sites (cf. Title 13, Sub-Title 13:275-8; 276:5 – Draft Dec. 21, 2001); and the November 1997 guidelines adopted by the Office of Environmental Quality Control (which also facilitate the standardized approach to compliance with Act 50 amending HRS Chapter 343; April 26, 2000).

A primary objective of the present study was to research and report on documentation that would help readers better understand native Hawaiian customs and practices, and historic events associated with native land and fishery resource stewardship and use, and the relationship of the wide range of fishery resources in Hawaiian culture—in both traditional and historical contexts. The study also sought to identify the wide range of fishery resources— where species occur (occurred), what was caught where, and in what quantities.

In preparing the archival-historical documentary component of this study, the authors reviewed both published and manuscript references recorded in Hawaiian and English languages. In an effort to further our understanding of the traditional and customary practices and cultural-historical values associated with Hawaiian fisheries, the authors conducted research in several areas which have not received much exposure in past studies. Thus, this study provides readers with access to many old accounts that have not been easily available to most people, and in some cases, narratives not previously seen in English translations.

Historical Documentary Research

References cited in this study include, but are not limited to — land use records, including Hawaiian Land Commission Award (L.C.A.) records from the *Māhele ‘Āina* (Land Division) of 1848; and historical texts authored or compiled by — D. Malo (1951); J.P. I‘i (1959); S. M. Kamakau (1961, 1964, 1976, and 1991); Wm. Ellis (1963); A. Fornander (1916-1919 and 1996); A.D. Kahaulelio (1902); Jordan and Evermann (1902-1905); and Handy and Handy with Pukui (1972). Importantly,

Figure 1. The Hawaiian Archipelago with Reefs to the Westward (1919)

the study also includes excerpts from a number of native accounts from Hawaiian language newspapers (compiled and translated from Hawaiian to English, by Maly), which provide first hand descriptions of fisheries and practices associated with procurement of fishery resources. This information is generally cited within categories by chronological order of occurrence, and the date of publication.

The archival-historical and cartographic resources were located in the collections of the Hawaiʻi State Archives (HSA), Land Division (LD), Survey Division (SD), and Bureau of Conveyances (BoC); the Bishop Museum Archives (BPBM); Hawaiian Historical Society (HHS); University of Hawaiʻi-Hilo Moʻokini Library; private family collections; and in the collection of *Kumu Pono Associates LLC*.

Oral History Interviews

The oral history interviews cited in this study (see *Volume II*), fall under two classes: (1) those conducted between October 2002 to April 2003, and are directly related to aspects of the present study; and (2) those conducted prior to undertaking this study, or as a part of other research, but which share important *kamaʻāina* knowledge of Hawaiian traditions and use of fisheries. All of the interviews cited, were conducted by Kepā Maly, most with elder *kamaʻāina* ranging in age from their late 60s to late 90s. The interviews document personal knowledge of fisheries of all the major Hawaiian Islands (Hawaiʻi to Niʻihau), and also touch on the fisheries of Nihoa and the Northwestern Hawaiian Islands of the archipelago.

The interview format followed a standard approach that: (1) identified the interviewee and how he or she came to know about the lands and fisheries of the area(s) described by the interviewee; (2) identified the time and/or place of specific events being described; (3) the recorded interviews were transcribed and returned to interviewees for review, correction, and release; and (4) copies of the full final study (Volumes I & II herein), were provided to each interviewee or their families.

During the process of review and release, some additional information was recorded, thus the released transcripts differ in some aspects (for example, some dates or names referenced were corrected; and some sensitive, personal information was removed from the transcripts). Thus, the final released transcripts supercede the original recorded documentation.

Each of the interviewees were given a packet of historic maps (dating from ca. 1875 to 1920), and during the interviews selected maps or aerial photographs were also referenced. When appropriate, locational information documenting fishery resources and other features was recorded on one or more historic maps and photos. Some of that information has in-turn been used to annotate maps cited as figures in Volume II. Also, when conducting field interviews, photographs were taken and selected pictures are cited in the interviews.

Detailed narratives from a total of 96 individuals, participating in more than 100 interviews between 1975 to 2003, are quoted in *Volume II* of this study. Their recollections date from 1905 to the present, and in their words, we find deep cultural attachment, and rich knowledge of the *kai lawaiʻa* (fisheries) and *ʻāina i pūlama ʻia* (cherished lands) of Hawaiʻi Nei. Readers of *Volumes I & II* will find remarkable continuity and time depth of knowledge as recorded in the historical-archival literature (*Volume I*) as passed down in the daily lives and practices of our elders. As we have been instructed by our *kūpuna*, "*He lohe ke ola; he kuli ka make!*" — To hear, or heed the words is life, to turn a deaf ear is death! (pers comm., M.K. Pukui, 1976). As echoed by the voices of many of the elder *kamaʻāina* in their interviews, this expression may be directly applied to the state of the fisheries. Their words, and those of past generations, give us clues as to how to care for, and ensure the long-term sustainability of Hawaiʻi Nei.